Habitat Suitability Index Assessment Report 2015

For Ponds on Land at Wenny Road, Chatteris, Cambridgeshire

For: **Cannon-Kirk (UK) Ltd**
c/o
Andrew Hodgson BA (Hons) BTP MRTPI AIEMA
Associate Director
Planning
Savills
Unex House
132-134 Hills Road
Cambridge CB2 8PA

Darren Frost
BSc (Hons) CEnv MCIEEM CBiol MSB

April 2015

Hilton House,
37 Hilton Street,
Over,
Cambridge,
CB24 5PU

Telephone: +44 (0)1954 231239
Fax: +44 (0)1954231093
E-mail: info@cambridgeecology.com
Web address: www.cambridgeecology.com

Place Of Registration: Cardiff UK
Cambridge Ecology - Company Registration: 6357707
Registered Office: Hilton House 37 Hilton Street, Over, Cambridgeshire, CB24 5PU

Notice to Interested Parties

To achieve the study objectives stated in this report, we were required to base our conclusions on the best information available during the period of the investigation and within the limits prescribed by our client in the agreement.

No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information. Thus, we cannot guarantee that the investigations completely defined the degree or extent of e.g. species abundances or habitat management efficacy described in the report.

This report is only valid for external use in its final issued version.

Document Information

Report title:	Habitat Suitability Index Assessment for ponds on land at Wenny Road, Chatteris, Cambridgeshire
Client:	Cannon-Kirk (UK) Ltd, c/o Mr Andrew Hodgson, Savills
Document ref:	P0416-R-005a
Author(s):	Darren Frost
Report date:	April 2015

CONTENTS

TABLES

FIGURES

0 EXECUTIVE SUMMARY

0.1 On behalf of Cannon-Kirk (UK) Ltd, Cambridge Ecology Ltd was commissioned by Savills to carry out a Habitat Suitability Index (HSI) assessment of ponds on land at Wenny Road, Chatteris, Cambridgeshire. The survey was required to investigate the likely presence of Great Crested Newt, a protected species, on the land within and adjacent to the development site, which could potentially be affected by a proposed residential development at the site.

0.2 Four ponds were identified as being present within or adjacent to the development site and therefore in need of a HSI assessment. In addition where, access to ponds was possible they were each netted using a sweep net, to catch any Great Crested Newts that may have been present.

0.3 As part of the assessment biological records were obtained from the local biological records centre to determine the proximity of the nearest records of Great Crested Newt.

0.4 The results of the HSI assessment indicated that three of the ponds (Nos. 1, 2 and 4), were categorised as being ‘poor' in their suitability to support a breeding population of Great Crested Newt. Pond no. 3 located in a residential property located adjacent to the development site boundary was categorised as being ‘average' to support a breeding population of Great Crested Newt.

0.5 No amphibians, including Great Crested Newt were found during the netting of the ponds (Nos. 1, 2 and 4), access to pond No.3 for netting was not possible.

0.6 The biological records search revealed there were no records of Great Crested Newt, within 2km of the development site during the last 10 years.

0.7 Based on the findings of this HSI assessment survey, the ponds appeared to have a low potential to support the life-cycle of breeding Great Crested Newt; while the terrestrial habitat would appear to be moderately suitable. However, there are recognised limitations to relying solely on the results of the HSI assessment and biological records. Therefore as a precaution it has been recommended that a standard presence/absence survey for Great Crested Newt be carried out on the accessible ponds.

0.8 The results of this survey would provide a higher degree of certainty about the likely presence of Great Crested Newt within the development site and therefore reduce the risk of the development proposals contravening the wildlife legislation pertaining to Great Crested Newt and inform the actual need for mitigation measures including the need to apply for European protected Species development licence.

0.9 In addition a number of enhancement measures have been recommended to meet the policy requirements of the NPPF and feedback from scoping opinion consultations. These measures may be incorporated into the landscape/habitat creation design proposals for the proposed development scheme that would be expected to result in

conservation gain. These would be focused on the provision, maintenance and enhancement of foraging habitats in proximity to the proposed development site.

1 INTRODUCTION

1.1 On behalf of Cannon-Kirk (UK) Ltd, Cambridge Ecology Ltd was commissioned by Savills to carry out a Habitat Suitability Index (HSI) assessment of ponds on land at Wenny Road, Chatteris, Cambridgeshire. The survey was required to investigate the likely presence of Great Crested Newt, a protected species, on the land within and adjacent to the development site, which could potentially be affected by a proposed residential development at the site.

1.2 The HSI assessment survey was commissioned in order to establish whether any of the ponds within or adjacent to the development site were suitable to support breeding Great Crested Newt and therefore whether specific Great Crested Newt surveys were necessary to confirm the actual presence/absence of Great Crested Newt in the ponds at or adjacent to the site.

1.3 Figure 1.1 shows the red line boundary of the Wenny Road site that formed the main area of the HSI assessment survey area.

1.4 The aim of the survey and this report was to:

- identify the actual and/or likely presence of Great Crested Newt in any of the ponds within or adjacent to the Wenny Road site.
- evaluate the suitability of the land within the development site to be used by Great Crested Newt.
- provide information to address any constraints caused by Great Crested Newt at the site, including whether additional specific Great Crested Newt surveys were required and whether a European Protected Species (EPS) development licence (a Natural England licence for the purpose of development) would be necessary to ensure legal compliance is maintained.
- identify appropriate mitigation measures, necessary to comply with legal requirements pertaining to Great Crested Newt and animal welfare legislation, and provide enhancement opportunities in relation to national planning policy in terms of the National Planning Policy Framework (NPPF). The key principles in the NPPF require that *"the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and delivering net gains in biodiversity where possible*."
- identify appropriate biodiversity habitat creation and enhancement measures that should be included in the design of any landscaping (habitat creation plans).

1.5 The results of the survey would indicate whether Great Crested Newt were likely to be present and could therefore be affected by the development proposals and therefore whether Great Crested Newt presented a potential constraint to the proposed works. For instance, the results of the HSI assessment survey would be used to provide guidance on the likely presence of Great Crested Newt and therefore the need for specific Great Crested Newt surveys to be carried out, the likely need for changes to

the design layout for the development and whether any requirements were necessary for mitigation, to meet legal obligations, including the need to apply for an EPS development licence to enable the development to proceed.

Study Area and Development Proposals

1.6 The survey area for the HSI assessment of ponds' suitability to support Great Crested Newts comprised the red line boundary of the development site, plus an area up to 250m beyond the site boundary to the east and south (where access was possible). Due to the size and nature of the development and the character of the surrounding habitats, the 250m area was chosen as the maximum potential zone of influence. The area beyond the site boundary to the north and west was not included in the field survey because it comprised entirely of a built environment with residential properties and roads, and therefore of very limited ecological value and access to these areas was not possible.

1.7 For clarity in this report reference to the 'development site' comprises the red line boundary of the proposed development site, while the survey area includes the area covered by the ecology survey, comprising the red line boundary of the proposed development site and the 250m zone of influence, where access was possible.

1.8 The Wenny Road development site was located approximately 1 kilometre to the south east of Chatteris town centre and is bordered to the north and west by residential properties, part of Chatteris town and the west and south by the A142 road. Chatteris lies approximately 28km north of the city of Cambridge. The centre of the site is situated at Grid Ref TL 400 856. The total area of the development site covers an area of approximately 26 hectares (ha).

1.9 The land beyond the A142 on the east and southern boundary of the development site and in the wider area around Chatteris is primarily intensively farmed arable land. It was considered that this arable land would likely be unsuitable for Great Crested Newts and the main A142 road would act as barrier to the movement of amphibians from the arable land onto the development site

1.10 Within the survey area the habitats comprised:

- Arable land
- Dry/Wet Ditches
- Ponds/Standing Water
- Amenity/Improved grassland
- Scattered Scrub
- Scattered Trees/Parkland/Broadleaved Woodland
- Hedgerows
- Tall Ruderal
- Bare ground and Buildings

1.11 The development site and study area were primarily used for recreational dog walking and horse grazing.

1.12 The development proposals for the site adjacent to Wenny Road, Chatteris, would be for various residential properties.

1.13 Details of the number and layout of the scheme were not available at the time of preparing this report. However it would be expected that the results of this ecology survey (and other species specific surveys in the future) would help provide details that would influence the layout of the scheme and especially the landscaping and habitat creation.

2 METHODS

Literature Search

2.1 A desk-based literature search (of various sources – see para. 2.4 below) was undertaken in March 2015 to gather existing ecological information relating to the proposed development site.

2.2 For the purposes of this study, the literature search aimed to gather biological data for Great Crested Newt in a search area of up to 2km from the development site.

2.3 Due to the type and extent of the proposed development works within the footprint of the proposed development site an actual zone of influence up to the boundary of the development site was considered proportionate. Therefore biological records greater than 250m for protected and priority species were not considered relevant.

2.4 The desk-based literature included searching relevant biological data sources, including:

- Cambridge Ecology (2014). Report into the findings of an extended Phase 1 Habitat Survey and Protected Species scoping survey for Wenny Road, Chatteris.
- Natural England (http://www.naturalengland.org.uk);
- Multi-Agency Geographical Information Coverage (MAGIC) (http://www.magic.gov.uk);
- National Biodiversity Network Database (NBN) (http://www.searchnbn.net/help/helpIndex.jsp);
- Environment Agency (http://www.environment-agency.gov.uk);
- Biological Records Centre (Cambridge and Peterborough Environmental Records Centre);

Habitat Suitability Index Assessment

2.5 A Habitat Suitability Index Assessment was carried out to determine the likely presence of Great Crested Newts in the accessible pond identified as being within 250m of the Wenny Road development site. The HSI assessment was based on the methods described in 'Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*)'. Herpetological Journal 10 (4), 143-155) by Oldham et. al. 2000).

2.6 The HSI for Great Crested Newt is a measure of habitat suitability. It is not a substitute for Great Crested Newt surveys. In general, ponds with high HSI scores are more likely to support Great Crested Newts than those with low scores. However, the system is not sufficiently precise to allow the conclusion that any particular pond with a high score will support newts, or that any pond with a low score will not do so.

2.7 There is also a positive correlation between HSI scores and the numbers of Great Crested Newts observed in ponds. So, in general, high HSI scores are likely to be associated with greater numbers of Great Crested Newts. However, the relationship is not sufficiently strong to allow predictions to be made about the numbers of Great Crested Newts in any particular pond.

2.8 HSI scoring can be useful in:

- Evaluating the general suitability of a sample of ponds for Great Crested Newts
- Comparing general suitability of ponds across different areas
- Evaluating the suitability of receptor ponds in a proposed mitigation scheme.

2.9 Table 2.1. provides an interpretation of the HSI scores

Table 2.1: Categorisation of HSI scores

HSI Score	Pond Suitability for Great Crested Newt
<0.5	Poor
0.5-0.59	Below Average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

2.10 In addition to the HSI assessment:

- a netting survey was carried out to catch any Great Crested Newts that may have been present in the ponds at the time. The netting involved vigorous sweeping a large pond net through the water and amongst the sediment at the bottom of the pond. This was repeated at regular intervals around the perimeter of the pond.
- a careful hand search was carried out through dense vegetation and under potential resting places such as rubble piles, log piles and bramble-covered banks to find sheltering Great Crested Newts.

2.11 The survey was carried out on the 18th March 2015 by an experienced ecologist Darren Frost who is a licensed Great Crested Newt surveyor (Registration Number **2014-6141-CLS-CLS**.).

2.12 The information gathered was used to help determine the likely presence of Great Crested Newts in the ponds and therefore inform an assessment into the potential effects of the proposed development at the Wenny Road site and therefore identify the need to carry out specific Great Crested Newt Surveys.

3 RESULTS

Literature Search

3.1 The data search from March 2015 found no records of Great Crested Newt within the development site or within 2km of the site boundary.

Netting Search

3.2 No amphibians were found in the accessible ponds (No's 1, 2 and 4), during the sweep netting search.

Habitat Suitability Index Assessment

3.3 An HSI assessment was carried out on four ponds that were identified as being located within and adjacent to the development site.

3.4 Figure 3.1 indicated the location of the four ponds, numbered 1-4, included in the HSI assessment.

3.5 Pond no. 1 was known on the Ordinance Survey map as Robin Knight's Pond and located along Birch Fen Drove track. Pond no. 2 was an attenuation pond located on the south side of and next to Wenny Road and created as part of the flood alleviation for the adjacent residential development along Wenny Road and Cricketer's Way. Pond no. 3 was a formal rectangular garden pond located within a residential garden along the western boundary of the development site. Pond no. 4 was a temporary pond (it was dry in November 2014) located along the northern boundary of the development site on the edge of the strip of deciduous woodland. This pond is marked on the Ordinance Survey map for the area and is therefore considered to have been in existence for some considerable time, although it appears not to fill with water occasionally.

3.6 A number of areas of standing water identified during the extended Phase 1 Habitat survey carried out during November 2014 (Cambridge Ecology 2014) were no longer present in March 2015 and therefore not included in the HSI assessment

3.7 There were no ponds found adjacent to or on the eastern side of the A142 road.

3.8 The details of the field score, suitability index and final HSI score of the four ponds is provided in Table 3.1.

3.9 The results of the HSI assessment indicated that three of the ponds (Nos. 1, 2 and 4) within and adjacent to the development site, were categorised as being ‘poor' to support a breeding population of Great Crested Newt.

Table 3.1: HSI Assessment Results

HSI Category	Pond 1	
	Field Score	**Suitability Index**
SI1 - Location	A	1
SI2 - Pond area	400 m^2	0.8
SI3 - Pond drying	sometimes	0.5
SI4 - Water quality	bad	0.01
SI5 - Shade	80%	0.6
SI6 - Fowl	minor	0.67
SI7 - Fish	absent	1
SI8 - Ponds	4/km^2	1
SI9 - Terrestrial Habitat	moderate	0.67
SI10 - Macrophytes	5%	0.35
HSI	**0.45**	
HSI Category	**Pond 2**	
	Field Score	**Suitability Index**
SI1 - Location	A	1
SI2 - Pond area	1300 m^2	0.9
SI3 - Pond drying	annually	0.1
SI4 - Water quality	bad	0.01
SI5 - Shade	10%	1
SI6 - Fowl	minor	0.67
SI7 - Fish	absent	1
SI8 - Ponds	4/km^2	1
SI9 - Terrestrial Habitat	poor	0.33
SI10 - Macrophytes	55%	0.85
HSI	**0.42**	
HSI Category	**Pond 3**	
	Field Score	**Suitability Index**
SI1 - Location	A	1
SI2 - Pond area	200 m^2	0.4
SI3 - Pond drying	never	0.9
SI4 - Water quality	poor	0.33
SI5 - Shade	10%	1
SI6 - Fowl	absent	1
SI7 - Fish	minor	0.33
SI8 - Ponds	4/km^2	0.9
SI9 - Terrestrial Habitat	moderate	0.67
SI10 - Macrophytes	20%	0.5
HSI	**0.65**	
HSI Category	**Pond 4**	
	Field Score	**Suitability Index**
SI1 - Location	A	1
SI2 - Pond area	300 m^2	0.6
SI3 - Pond drying	annually	0.1
SI4 - Water quality	bad	0.01
SI5 - Shade	80%	0.6
SI6 - Fowl	minor	0.67
SI7 - Fish	absent	1
SI8 - Ponds	4/km^2	0.9
SI9 - Terrestrial Habitat	good	1
SI10 - Macrophytes	0%	0.3
HSI	**0.39**	

3.10 Pond no. 3 located in a residential property located adjacent to the development site boundary was categorised as being 'average' to support a breeding population of Great Crested Newt.

3.11 The terrestrial habitat around pond no. 1 comprised regularly grazed improved grassland (short even sward height), a hedgerow and intermittently dry ditch and scrub. Therefore the habitat around this pond was considered moderately suitable for Great Crested Newts.

3.12 The terrestrial habitat around pond no. 2 comprised regularly mown managed (short sward height) amenity grassland, a hedgerow and wet ditch. Therefore the habitat around this pond was considered poor suitability for Great Crested Newts; although the hedge and ditch could provide a commuting route for dispersing Great Crested Newts.

3.13 The terrestrial habitat around pond no. 3 comprised regularly mown managed (short sward height) lawn, plus in close proximity was tussocky improved grassland, scattered scrub, hedgerows and trees. Therefore the habitat around this pond was considered moderately suitable for Great Crested Newts.

3.14 The terrestrial habitat around pond no. 4 comprised improved grassland some grazed some ungrazed, broad-leaved woodland and scrub. Therefore the habitat around this temporary pond was considered moderately suitable for Great Crested Newts.

Survey Constraints

3.15 The HSI assessment was carried out in March 2015. One of the criteria i.e. the amount of shade (SI 5) used as part of the HSI assessment should ideally be carried out between May and September. However, an assessment of the overhanging trees around the pond and the bright sunny conditions provided sufficient information that a suitable category and SI rating could be assigned to the pond. Therefore, it is considered that the assessment gave a valid HSI score.

3.16 Access to residential properties along the northern boundary of the development site was not possible. The presence of ponds could not be established in the gardens which were enclosed by solid, tall fences.

3.17 One garden pond (No.3) was observed because it was close to the boundary of the property which was protected by a wire fence. Therefore an HSI assessment of this pond was possible.

3.18 Overall the information and data gathered from the desk based literature search and the survey were considered to provide a robust and valid HSI assessment of the ponds' suitability to support Great crested Newt.

3.19 It should be noted that the absence of certain protected and/or rare species would not preclude their presence on a site. There would always be a risk of protected or rare species being over-looked, either owing to the timing (both time of day and time of year) of the survey or the scarcity of the species at the site. In addition, the ability of wildlife (including protected species) to move to new sites periodically and therefore move into an area after the survey had been carried out should not be discounted.

Consequently, it would be recommended that if the development proposals were to be delayed for three years or more, then a further ecological survey would be recommended to update the results provided in this report and inform the development proposals in the future.

3.20 The field survey undertaken involved a netting survey, refugia check and HSI assessment; consequently the investigation was not exhaustive; although it was considered proportionate and sufficient information was gathered to determine the general character of the main habitat types present and the likelihood of Great Crested Newts established.

3.21 In addition, biological records dating back 10 years (as provided during the desk-based literature search) were based on the information that was available at the time for the site. Therefore, a lack of species records would not necessarily indicate that a species had not been present.

4 RECOMMENDATIONS

4.1 A Great Crested Newt presence/absence survey is recommended to be carried out on the accessible ponds within and adjacent to the development site. The results of this survey would augment the results of the HSI assessment and establish the likely presence of Great Crested Newts at the development site with a higher degree of certainty.

4.2 The provision of biodiversity enhancement measures that should be included as part of the landscape/habitat creation design proposals for the proposed development are recommended and would be expected to benefit amphibians in general and Great Crested Newts in particular.

4.3 The measures that would form part of the biodiversity enhancements comprise the following:

- any planting associated with landscaping/habitat creation to be aimed to provide suitable feeding, breeding and shelter for Great Crested Newts. For instance, the planting of native species known to benefit wildlife would be expected to provide an enhancement, the location of which has yet to be decided. Areas sown with a suitable wildflower seed mix would be expected to be managed to ensure the plant species have the best opportunity to grow and flourish. These habitats would encourage invertebrates to flourish and provide a food source for Great Crested Newts, therefore enhancing the foraging habitat for Great Crested Newts and benefit wildlife in general.

- the Robin Knights pond should be retained and its suitability for amphibians improved by dredging out the build up of decaying leaves and sediment and planting with native aquatic vegetation, including submerged, emergent and marginal plants.

- the areas of existing woodland should be maintained and enhanced to enable wildlife to use them.

- where possible new ponds should be created as part of a sustainable urban drainage system for the site. As part of this habitat creation hibernacula should be created to provide refuges and winter hibernation sites.

- where the opportunity arises new /hedgerow areas should be created within the landscaped areas to enable wildlife to forage. This would offset some of the foraging areas that would be lost to the proposed development.

4.4 This enhancement opportunity would be essential for the development to deliver a net gain in biodiversity and therefore meet the terms of the NPPF.

4.5 It is recommended that all the trees and scrub plants around the perimeter of the development site should be augmented with new native planting, especially along the eastern boundary next to the A142 road. Thereby creating hedgerow linkage commuting routes between areas across the development site boundary.

4.6 Bearing in mind the ability for wildlife to periodically move to new locations, it is recommended that if the development proposals were to be delayed for three years or more, then further Great Crested Newt surveys would be required to update the results provided in this report and inform the development proposals in the future.

4.7 As with all ecological surveys and the nature of wildlife, the behaviour and distribution of Great Crested Newt can change from time to time. Therefore it is recommended that a qualified ecologist be present on site during certain construction activities e.g. excavations, vegetation clearance etc; to ensure legal compliance and to advise on the response to any new ecology associated eventualities.

5 KEY POINTS AND FINDINGS

5.1 During March 2015 a literature search, pond netting exercise and HSI assessment was successfully completed on four ponds within and adjacent to the proposed development site at Wenny Road, Chatteris, Cambridgeshire.

5.2 The surveys were carried out by professional, qualified and licensed ecologists, with experience in Great Crested Newt surveys and knowledge of their ecology.

5.3 The information gathered from the surveys was considered to provide a robust and valid indication of the potential and actual presence of Great Crested Newts at the development site. Although it was recognised that direct access to one pond was not possible.

5.4 There were no records of Great Crested Newt, within 2km of the development site during the last 10 years.

5.5 The ponds were systematically netted to determine the actual presence of Great Crested Newts and amphibians in general. No amphibians were found.

5.6 The results of the HSI assessment indicated that three of the ponds (Nos. 1, 2 and 4), were categorised as being 'poor' in their suitability to support a breeding population of Great Crested Newts. Therefore the presence of Great Crested Newt in these ponds was considered to be relatively unlikely. A very low HSI scores may be used along with scheme details to infer a minimal chance of committing an offence in low impact situations.

5.7 Pond no. 3 located in a residential property located adjacent to the development site boundary was categorised as being 'average' to support a breeding population of Great Crested Newt. Therefore there was some potential for Great Crested Newt to be present in proximity to the development site.

5.8 Overall the variety and extent of the habitats within and adjacent to the development site were considered to be moderately suitable to support the life-cycle of Great Crested Newts.

5.9 The HSI assessment for Great Crested Newts is a measure of habitat suitability. It is not a substitute for newt surveys. In general, ponds with high HSI scores are more likely to support Great Crested Newts than those with low scores. However, the system is not sufficiently precise to allow the conclusion that any particular pond with a high score will support newts, or that any pond with a low score will not do so.

5.10 Based on the findings of this HSI assessment survey, overall the ponds appear to have a low potential to support the life-cycle of breeding Great Crested Newts; while the terrestrial habitat would appear to be moderately suitable. However, there are recognised limitations to relying solely on the results of the HSI assessment and biological records. Therefore as a precaution it has been recommended that a standard presence/absence survey for Great Crested Newts be carried out on the accessible ponds.

5.11 The results of this survey would provide a higher degree of certainty about the likely presence of Great Crested Newts with the development site and therefore reduce the risk of the development proposals contravening the wildlife legislation pertaining to Great Crested Newts and inform the actual need for mitigation measures including the need to apply for European protected Species development licence.

5.12 In addition a number of enhancement measures have been recommended to meet the policy requirements of the NPPF. These measures may be cost effectively incorporated into the landscape/habitat creation design proposals for the proposed development scheme that would be expected to result in conservation gain. These would be focused on the provision, maintenance and enhancement of breeding, sheltering and foraging habitats in proximity to the proposed development site.

6 BIBLIOGRAPHY

Cambridge Ecology Ltd (2014). Report into the findings of an extended Phase 1 Habitat Survey and Protected Species scoping survey for Wenny Road, Chatteris.

English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature (Natural England), Sheffield.

Gent A. H., and Gibson S. D. (1998) “Herpetofauna workers’ manual”, JNCC, Peterborough.

Langton T., Beckett C. and Foster J. (2001) “Great Crested Newt Conservation Handbook”, Froglife, Halesworth.

Natural England (2014a). Guidance on great crested newt master plan requirements for phased or multi-plot development applications. WML-G11 (0209) Master Plan Guidance – Great crested newts 1

Natural England (2014b). Template for Method Statement to support application for licence under Regulation 53(2) (e) in respect of great crested newts *Triturus cristatus.* Form WML-A14-2

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.

Swan, M.J.S & Oldham, R.S. (1993). Volume 1: National Amphibian Survey Final Report, English Nature Research Report No. 38.

7 FIGURES

Figure 1.1 Map showing the red line boundary of the Wenny Road site and Great Crested Newt HSI Assessment survey area.

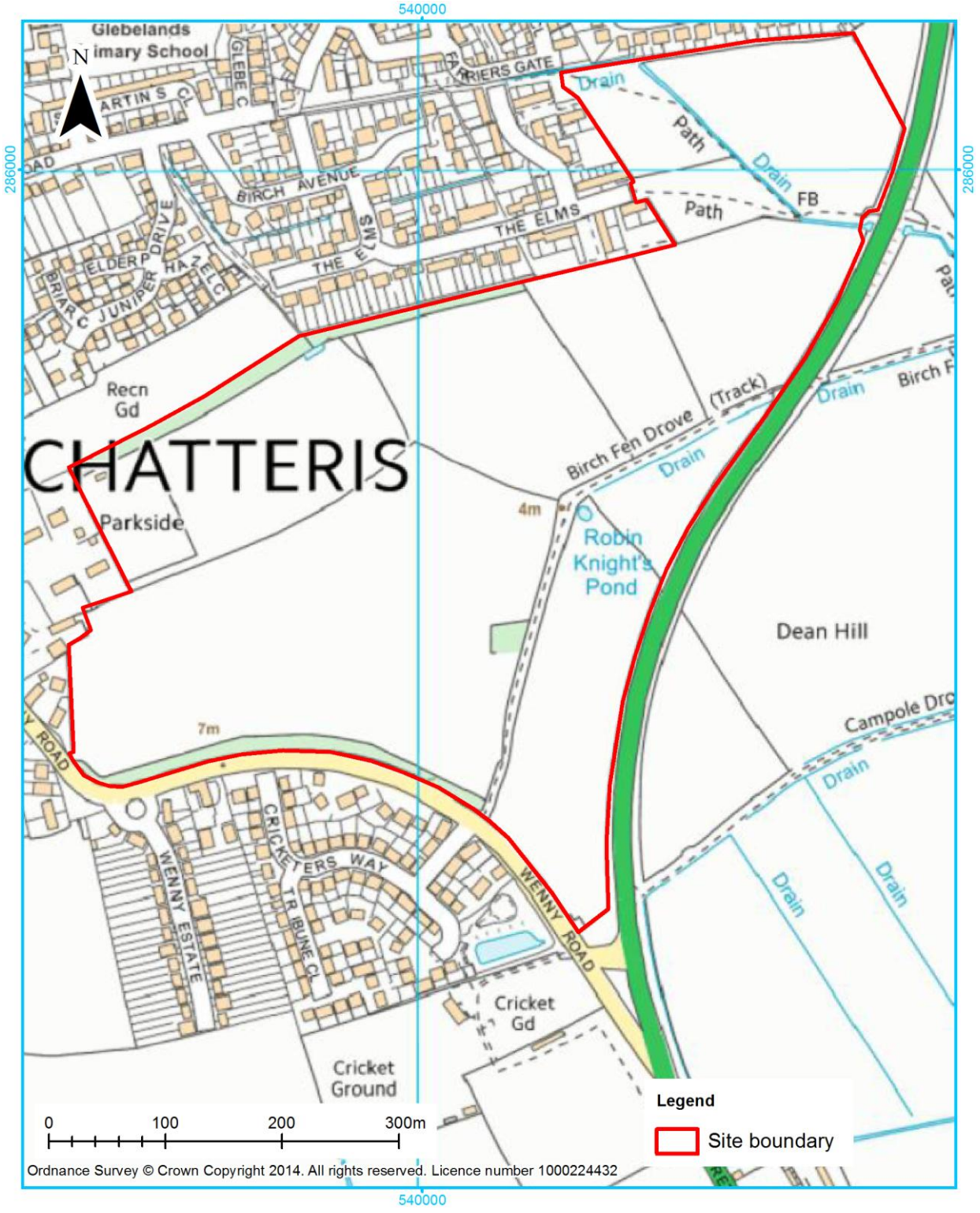
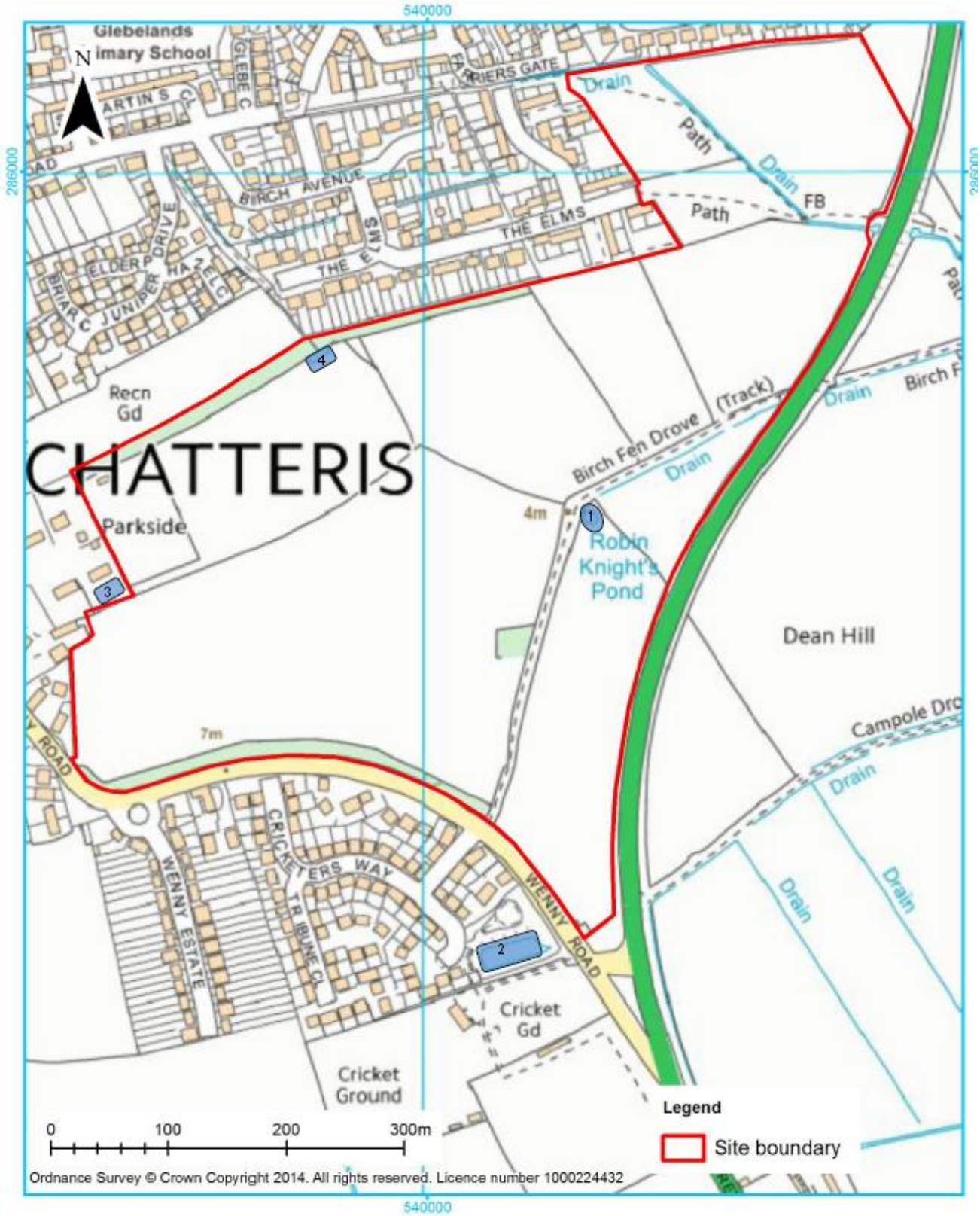


Figure 3.1 Plan showing the location of the ponds in the vicinity of the land adjacent to Wenny Road, Chatteris; the proposed development site



8 PHOTOGRAPHS

Photo No.	Photograph	Description
1		Robin Knights Pond Pond No 1. Showing adjacent hedge, overhanging tree and surface covered with duckweed.
2		Robin Knights Pond Pond No 1. Showing adjacent hedge, and grazing pasture.
3		Robin Knights Pond Pond No 1. Showing overhanging tree, and grazing pasture.

4		Wenny Road Pond Pond No 2. Showing adjacent hedge, boundary fence and amenity grassland.
5		Wenny Road Pond Pond No 2. Showing nature of vegetation comprising bulrush and sedges very little actual water and very shallow.
6		Wenny Road Pond Pond No 2. Showing amenity grassland and proximity of housing estate.

7		Residential Pond Pond No 3. Showing character of pond in a garden setting.
8		Residential Pond Pond No 3. Showing character of pond in a garden setting.
9		Ephemeral Pond Pond No 4. Showing character of a debris filled pond on the edge of a belt of deciduous trees.

9 LEGISLATION AND ECOLOGY

9.1 The information set out within this report does not constitute a legal opinion on the relevant legislation. The opinion of a legal professional should be sought if further advice is required.

9.2 The information below is intended only as guidance to the legislation relating to these species. The relevant legislation themselves should be referred to for the correct legal wording.

9.3 Full details of the legislation can be found at:

www.legislation.gov.uk/uksi/2010/490/contents/made,
www.legislation.gov.uk/uksi/2007/1843/contents/made
www.legislation.gov.uk/uksi/2009/6/contents/made

9.4 It remains the client's responsibility to maintain legal compliance relating to national and international wildlife legislation.

Great Crested Newt Legislation

9.5 The information below is intended only as guidance to the legislation relating to these species. The Acts themselves should be referred to for the correct legal wording.

9.6 Great Crested Newts and their habitat are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats & Species Regulations 2010 (as amended) making the Great Crested Newt a European Protected Species. Both the Great Crested Newt's aquatic habitat (typically ponds) and terrestrial habitat (areas surround ponds up to 500m) are protected from damage and destruction.

9.7 The Great Crested Newt is a priority species under the UK Biodiversity Action Plan and has been adopted as a Species of Principal Importance in England under section 41 of the NERC Act 2006, Wales under section 42 and in Scotland under the Nature Conservation (Scotland) Act.

9.8 To summarise in combination, this makes it an offence to:

- kill, injure or take (capture etc.) a Great Crested Newt;
- possess a Great Crested Newt;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place/habitat used by a scheduled animal for shelter or protection, or disturb any Great Crested Newt occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

9.9 A Great Crested Newt licence is required whenever disturbance of Great Crested Newts or damage to their habitat is likely to occur.

9.10 This means that Great Crested Newt surveys can only be carried out by a licensed ecological consultant. If mitigation is required to take account of the presence of Great Crested Newts, a second licence application would be necessary, which would be accompanied by a detailed method statement setting out the activity to be carried out under the terms of the licence. The Great Crested Newt licence will only be granted for reasons of overriding public interest and it must be shown that the favourable conservation status of the Great Crested Newt is maintained and that there is no satisfactory alternative to the proposed development.

Great Crested Newt Ecology

9.11 The Great Crested Newt is the largest newt found in the UK, growing up to 170mm in length. The skin of adult Great Crested Newts is granular in appearance, a dark brown background colour with darker spots. Adult males have a striking jagged crest along the length of their body and a smoother crest along the tail. Breeding males also have a white-blue stripe along the tail. Females lack a crest and tail stripe but have a yellow-orange stripe running along the bottom edge of the tail. Both sexes have a vivid orange belly with an irregular unique pattern of dark blotches.

9.12 Great Crested Newts require specific pond conditions for breeding. Ponds ideally need to have neutral to alkaline water (pH 6 or above) with areas of open water and well vegetated margins. Breeding ponds tend to be nutrient rich, not too shaded, free of fish with not too many waterfowl present. Males use open water to perform a complicated courtship dance. Females lay the fertilised eggs individually on the leaves of submerged plants. Larvae hatch from April onwards and stay in the pond to feed and complete metamorphosis from aquatic larvae to juveniles that are adapted to life on land. Adults usually leave the ponds before juveniles but the emergence from the pond is normally quite prolonged and can last several months.

9.13 The Great Crested Newt needs both aquatic and terrestrial habitat and actually spend most of their time on land, favouring areas of lowland that contain medium sized ponds, rough grassland, scrub and woodland. When on land, Great Crested Newts forage for prey among rank grassland, scrub and woodland, sometimes returning to ponds to feed during the summer. They require suitable refuges to use in extreme weather and during daytimes, such as large pieces of rotting deadwood, rubble piles or disused mammal burrows.

9.14 Great Crested Newts depend on waterbodies for breeding but otherwise they spend most of their lives on land. They over winter on land, normally hibernating underground and emerge soon after the first frost-free days in January or February to begin the migration to breeding ponds. Movement on land occurs almost exclusively at night and their progress is dependent on factors such as evening temperatures and rainfall, favouring wet or damp conditions with temperatures above 5 ^{o}C.

9.15 Great Crested Newts are quite widespread in the UK, found throughout England and Wales and also in southern Scotland. However, they have declined in numbers and their distribution is patchy. They are abundant in some small areas but nationally the species is threatened. The decline is primarily due to habitat loss, especially the loss of breeding ponds. Many ponds have disappeared due to water table reduction, infilling for development, farming, waste disposal, neglect or fish stocking. The quality

and management of the habitat that surrounds the breeding ponds is very important to the survival and viability of Great Crested Newt breeding populations. Unfortunately, along with the loss of ponds, pollution and toxic effects of chemicals used in intensive farming and the degradation, loss and fragmentation of terrestrial habitats have all contributed to the decline of the Great Crested Newt.