






Great Crested Newt Supplementary
Survey Report 2007
Kent International Gateway Ltd

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Prepared by	Andrew McCarthy Associates/ Angela Bond			
Signature				
Checked by	Nadine Rolls			
Signature				
Authorised by	Mark Elton			
Signature				
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WSP Environmental UK
 Mountbatten House
 Basing View
 Basingstoke
 Hampshire
 RG21 4HJ

Tel: +44 (0)1256 318800
 Fax: +44 (0)1256 318700
<http://www.wspgroup.com>



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Executive Summary

A presence/absence survey was undertaken of four ponds within 500m of the proposed development that could not be surveyed during 2005 and 2006 due to access restrictions. These ponds are referred to as pond 5, 8, 15 and 16.

Pond 5 appeared to have been in-filled and required no further survey. Pond 8, 15 and 16 were surveyed over four occasions between mid-March and mid-June in line with best practice.

Great crested newts were recorded within Pond 8 on all four survey visits with evidence of breeding found on the first visit. This species was recorded using the bottle trapping, egg search and torching techniques. A maximum count of 26 individuals was obtained by torchlight survey on 17 May 2007.

Great crested newts were not recorded within Pond 15 and 16 during the survey and it was concluded that this species was not present here at the time of survey.

Due to the presence of great crested newts within ponds directly adjacent the proposed development site, a European Protected Species Licence (EPSL) application will need to be prepared and submitted to Natural England. This should also be accompanied by a mitigation strategy that details works to protect and maintain the population status of the existing great crested newt population prior to and during the development of the proposed development.

Works under licence are likely to include a programme of pitfall trapping and artificial refuge search with translocation of animals to a new purpose-made receptor site on land close to the ponds where great crested newts were found.



1 Introduction

1.1 BACKGROUND INFORMATION

1.1.1 The proposed development site is situated west of Hollingbourne in Kent and is centred at National Grid Reference TQ815 553. The site is bounded by the M20 to the north and the A20 and a railway line to the south. The site covers approximately 125 hectares and the location is shown on Figure 1. The site comprises arable land and grassland with some areas of semi-natural and plantation woodland and a network of hedgerows and scattered trees.

1.1.2 During May 2004, WSP Environmental undertook a field survey of part of the land within the proposed scheme. During this survey, suitable habitat for great crested newt was identified in the form of ponds and wet ditches linked to woodland areas both on and adjacent to the site. Specialist surveys for great crested newt were carried out in spring 2005 and 2006 and of the eight ponds surveyed, four contained great crested newt and three of these were confirmed as breeding ponds.

1.1.3 A further four ponds were present within 500m of the proposed development site which were not surveyed during 2005 or 2006 due to access restrictions. Presence/absence surveys of these ponds were commissioned in March 2007 and undertaken by Andrew McCarthy Associates on behalf of WSP Environmental. Methodology followed the Great Crested Newt Mitigation Guidelines (English Nature, 2001) which stipulate that surveys should be carried out between mid-March and mid-June.

1.1.4 Records of great crested newts from within 2km of the development site have been received from the Kent and Medway Biological Records Centre. These records are for the following 1km squares: TQ7954, TQ7957, TQ7855 and TQ8155. The 1km grid square TQ8155 includes the proposed development area and it is likely that this record originates from a waterbody either on or close to the development boundary. No further records have been highlighted from consultation responses.

1.2 LEGISLATIVE CONTEXT

1.2.1 The great crested newt and any place it uses for shelter or protection are protected under the provisions of *the Wildlife and Countryside Act 1981 (as amended by the CROW act 2000)*. This prohibits the killing and injury of the species but also the intentional or reckless damage of any place used for shelter or protection by the species, obstruction of access to such places of shelter and disturbance to the species whilst occupying a place of shelter.

1.2.2 The great crested newt is also protected under European legislation which is implemented through *The Conservation (Natural Habitats, &c.) Regulations 1994* (known as the *Habitat Regulations*). The great crested newt is listed in these regulations as a European protected species and under regulation 39 of the habitat regulations it is an offence to:

- Deliberately capture or kill any animal of a European protected species;
- Deliberately disturb any such animal;
- Deliberately take or destroy the eggs of such an animal; or
- To damage or destroy the breeding site or resting place of such an animal.

1.2.3 The presence of a protected species is a 'material consideration' in planning terms and a development may only proceed under a European Protected Species (EPS) licence issued by Natural England. Licences for development purposes are issued under the *Habitat Regulations 1994* and only allow what is permitted within the terms and conditions of the licence.

1.3 SURVEY AIMS

1.3.1 The aim of the survey is to confirm the presence or absence of great crested newts within the remaining ponds both on and adjacent to the proposed development site that were not surveyed during previous years.



2 Methodology

2.1 FIELD SURVEY

2.1.1 The survey methodology involved four visits to the site in suitable weather conditions, to establish the presence or absence of great crested newt following survey techniques described in Great Crested Newt Mitigation Guidelines (English Nature 2001). The locations of water bodies on and adjacent to the site are shown on Figure 2.

2.1.2 The principal survey techniques used were:

- **Egg searching:** accessible emergent aquatic vegetation was searched for the eggs of all newt species. In the absence of suitable emergent vegetation, artificial plastic egg strips were secured to the perimeter of the pond.
- **Torchlight search:** all ponds that contained water were searched by torchlight (using either a Clulite SM610 or CB2 both which are one million candle powered) after dusk. The perimeter was walked (where accessible) and all marginal vegetation and pond edges were searched for newts where visibility allowed. No torchlight searches took place if the air temperature was below 5°C, in windy conditions or if it was raining.
- **Bottle trapping:** bottle traps of a standard design (2L drinks bottles) were placed in marginal vegetation in the accessible areas of the ponds. The traps were set during the early evening of the first day on site, checked and emptied if necessary during the torchlight survey and then checked and removed by 8am the following morning. Each bottle had a pocket of air trapped in it to address animal welfare issues. All traps were counted back in at the end of the survey to ensure that no traps were left behind. The traps were set at a density of one trap per metre around all accessible areas of bank.
- **Netting:** a dip net was swept across the pond to catch any newts or newt larvae (efts) within reach of the pond perimeter.

2.2 TIMING

2.2.1 All surveys were carried out between 18 April and 18 May 2007, which falls within the survey window recommended in the Great Crested Newts Mitigation Guidelines (English Nature, 2001) for a presence/absence survey.

2.3 WEATHER CONDITIONS

2.3.1 Prevailing weather conditions were checked before each survey. Surveys were not undertaken when evening temperature was predicted to be below 5°C, when there were strong winds or when heavy rainfall was predicted as these weather conditions would significantly reduce the activity of newts or visibility through the surface of the water during torchlight searches. Also, if the weather was predicted to be hot and sunny, traps were set later in the evening and collected early the following morning, to minimise the chances of oxygen in the traps being exhausted.

2.4 PERSONNEL

Hayden Torr – Natural England GCN licence number 20061389
David Schofield – Natural England GCN licence number 20071755
Jonathan Bramley – Natural England GCN licence number 20071931
Cate Jackson – Assistant working under supervision of Jonathan Bramley

2.5 SURVEY LIMITATIONS

2.5.1 These presence/absence surveys fulfilled the best practice standard as detailed in the Great Crested Newt Mitigation Guidelines (English Nature, 2001).

3 Results

3.1 WEATHER CONDITIONS

3.1.1 The weather conditions for the surveys are listed in Table 1. All surveys were undertaken in suitable weather conditions and at the correct time of year.

Table 1: Weather Conditions during surveys

Date	Air Temperature (°C)	Weather conditions
18/04/07 – 19/04/07	Max 11 ⁰ C Min 6 ⁰ C	Dry
19/04/06 – 20/04/06	Max 12 ⁰ C Min 7 ⁰ C	Dry
24/04/07 – 25/04/07	15 ⁰ C	Dry
17/05/07 - 18/05/07	16 ⁰ C	Dry

3.2 SURVEY RESULTS

3.2.1 Great crested newts were recorded within Pond 8 on all four survey visits with evidence of breeding found on the first visit (the raw data can be found in Appendix B). This species was recorded using the bottle trapping, egg search and torching techniques. A maximum count of 26 individuals was obtained by torchlight survey on 17 May 2007 with a concentration of individuals within the eastern section of the pond where more aquatic vegetation was present.

3.2.2 Great crested newts were not recorded within Pond 15 and 16, and Pond 5 was no longer in existence due to infilling.

3.2.3 Male and female smooth newt *Triturus vulgaris* were recorded within Pond 15 and 16 on all four visits, a single male palmate newt *T. helveticus* was recorded in Pond 8 and common frog *Rana temporaria* was recorded within Ponds 15 and 16.

Table 2: Survey Results (see also Figure 2 for pond locations)

Pond	Pond description	Survey Result	Summary
5	This pond was inaccessible at the time of survey. However it was possible to view the location of the pond, as marked on the map (Figure 2), from the access track along Crismill Road.	The pond appeared have been infilled and no obvious evidence of wet ground was observed.	NA
8	The pond was approximately 25m by 10m and 1.5 deep in parts with abundant leaf litter on the base. The banks were made with earth and concrete with steep sides. Hawthorn <i>Crataegus monogyna</i> and birch <i>Betula sp.</i> were present around the pond edge resulting in 50% shading. Aquatic vegetation included pendulous sedge <i>Carex pendula</i> , yellow iris <i>Iris pseudacorus</i> with abundant filamentous algae.	Highest count was 26 Great crested newt (GCN) recorded from this pond during the torchlight survey. GCN eggs were observed on marginal vegetation. Palmate <i>Triturus helveticus</i> and smooth <i>T. vulgaris</i> newt were also recorded here using bottle traps and torchlight.	GCN present. Breeding pond.
15	A 12m by 5m pond located in a horse paddock. The banks were steep, approximately 0.5 to 1m. With part of the pond shaded by a single pedunculate oak <i>Quercus robur</i> adjacent the pond. Aquatic vegetation included common reedmace <i>Typha latifolia</i> and common water-starwort <i>Callitriche stagnalis</i> and covered approximately 20% of the pond. The pond was reported by local residents to be spring fed.	No GCN recorded, although, common frog <i>Rana temporaria</i> and smooth newt were both present.	No GCN recorded
16	Three small brick ponds directly next to each other: <ul style="list-style-type: none"> A) Ornamental lined pond, 5m by 3m with a 10 to 20% macrophyte cover included Canadian pondweed <i>Elodea canadensis</i> and common reedmace. At the time of survey the water level was approximately 15cm deep and slightly turbid. The pond was unshaded with leaf litter and sediment was present on the bottom. B) Lined pond 10cm to 60cm deep, 3m by 10m with leaf litter on the bottom and 20% shade from adjacent scrub. Fifty percent macrophyte cover which included common duckweed <i>Lemna minor</i> and the invasive species parrot's feather <i>Myriophyllum aquaticum</i>. C) 3m by 2m and 30cm deep with approximately 10% shade from adjacent shrubs. Ten percent macrophyte cover including Canadian pondweed and yellow iris. Fish were present. 	No GCN were present within these ponds. Several smooth newts were present with the highest accumulation in pond 16b where the highest count was approximately 40 individuals and the highest count for the three ponds together was 78.	No GCN recorded



4 Discussion and Recommendations

4.1.1 The survey showed that the maximum count within Pond 8 was of 26 adult great crested newts and this equates to a medium population (between 11 and 100 adults), as stated in Section 5.8.3.1 of the Great Crested Newt Mitigation Guidelines (English Nature, 2001). The discovery of eggs on the initial visit indicates the presence of a current breeding population.

4.1.2 Previous surveys conducted in 2006 on all other ponds close to the development site showed that great crested newts are present within four other ponds in the area. These are referred to as ponds 4, 6, 7 and 10 and are shown on Figure 2. Full population surveys were conducted as part of the 2006 surveys and population estimates for these four ponds are; small, small, medium and small respectively.

4.1.3 There are therefore a total of 5 ponds supporting breeding great crested newts in the vicinity of the development proposals. Because the development proposals will result in the disturbance of terrestrial habitat close to these breeding ponds, a European Protected Species Licence (EPSL) application will need to be made and submitted to Natural England and the site clearance works cannot begin until an EPSL has been granted.

4.1.4 EPSL applications are not normally considered without an accurate population assessment from each breeding pond to be affected. As only four survey visits have been undertaken on Pond 8, a further two survey visits would normally be necessary between mid-April and mid-May in line with best practice as defined by the Great Crested Newt Mitigation Guidelines (English Nature, 2001) to obtain an accurate population assessment from that pond. However, in this instance it is possible that a licence application could be prepared in the absence of such population data for this pond for the following reasons (and this should be scoped with Natural England during the planning process);

- The pond itself will not be directly impacted by the development proposals;
- Full population surveys (6 visits) were undertaken in 2006 of the other four ponds surrounding the site that contain great crested newts;
- A comprehensive mitigation strategy for this species has been designed in to the development proposals using the population information obtained from the 2006 surveys. (For the purposes of ensuring great crested newts were fully considered within the scheme design stage, presence of the species was assumed within all ponds for which it had previously not been possible to obtain survey information and this included pond 8).

4.1.5 The EPSL application should also be accompanied by a mitigation strategy that details works to protect and maintain the population status of the existing great crested newt population prior to and during the development of the proposed development.

4.1.6 Works under licence are likely to include a programme of pitfall trapping and artificial refuge search with translocation of animals to a new purpose-made receptor site on land close to the ponds where great crested newts were found.

4.1.7 Quite a high number of smooth newts were recorded in the collection of ponds referred to as 16a-c (highest count was 78). This represents a medium population (JNCC, 1998) and is of local significance. These newts would be translocated into a suitable receptor pond as part of the great crested newt mitigation works.



5 References

English Nature (2001) Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.

HMSO Wildlife and Countryside Act 1981.

HMSO Conservation (Natural Habitats & c.) Regulations 1994.

HMSO Countryside and Rights of Way Act 2000 .

JNCC (1998) Herpetofauna Worker's Manual.

Kent and Medway Biological Records Centre (2005) Report Regarding Hollingbourne, Maidstone (*in Appendix B, WSPE Extended Phase 1 Habitat Survey*).

WSP Environmental Ltd (2005) Hollingbourne Business Park Extended Phase 1 Habitat Survey.

WSP Environmental Ltd (2006) Great crested Newt Survey.

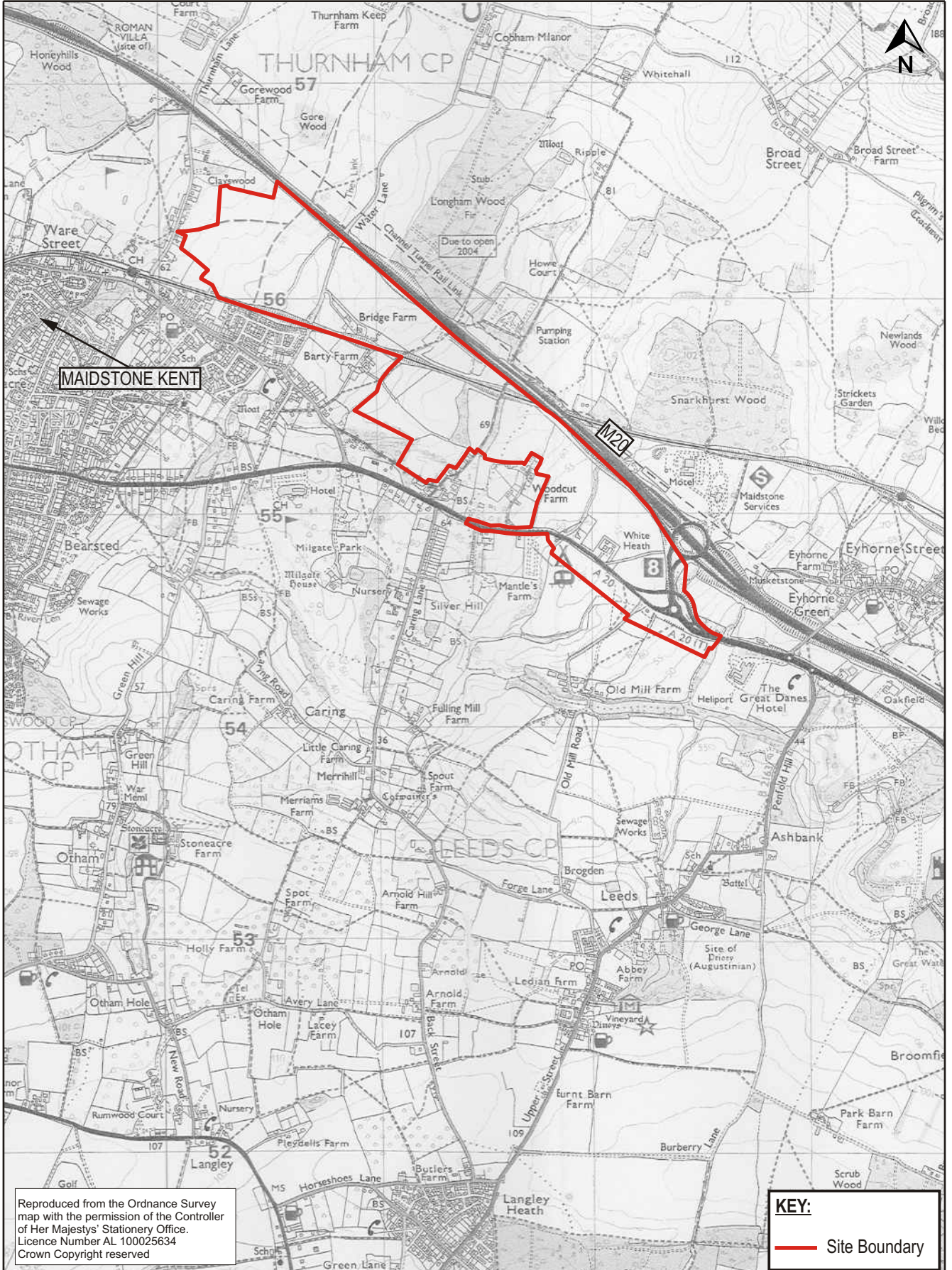


Figure 1 Site Location Map

PROJECT: HOLLINGBOURNE BUSINESS PARK		DRAWING STATUS: FINAL		
DATE: BY: CHECKED:	August 2005 KAM AB	PROJECT No: 12070549/001	DRAWING NO: FIGURE 1	REV: -
TITLE: SITE LOCATION PLAN				TEL: +44 (0)1256 318800 FAX: +44 (0)1256 318700



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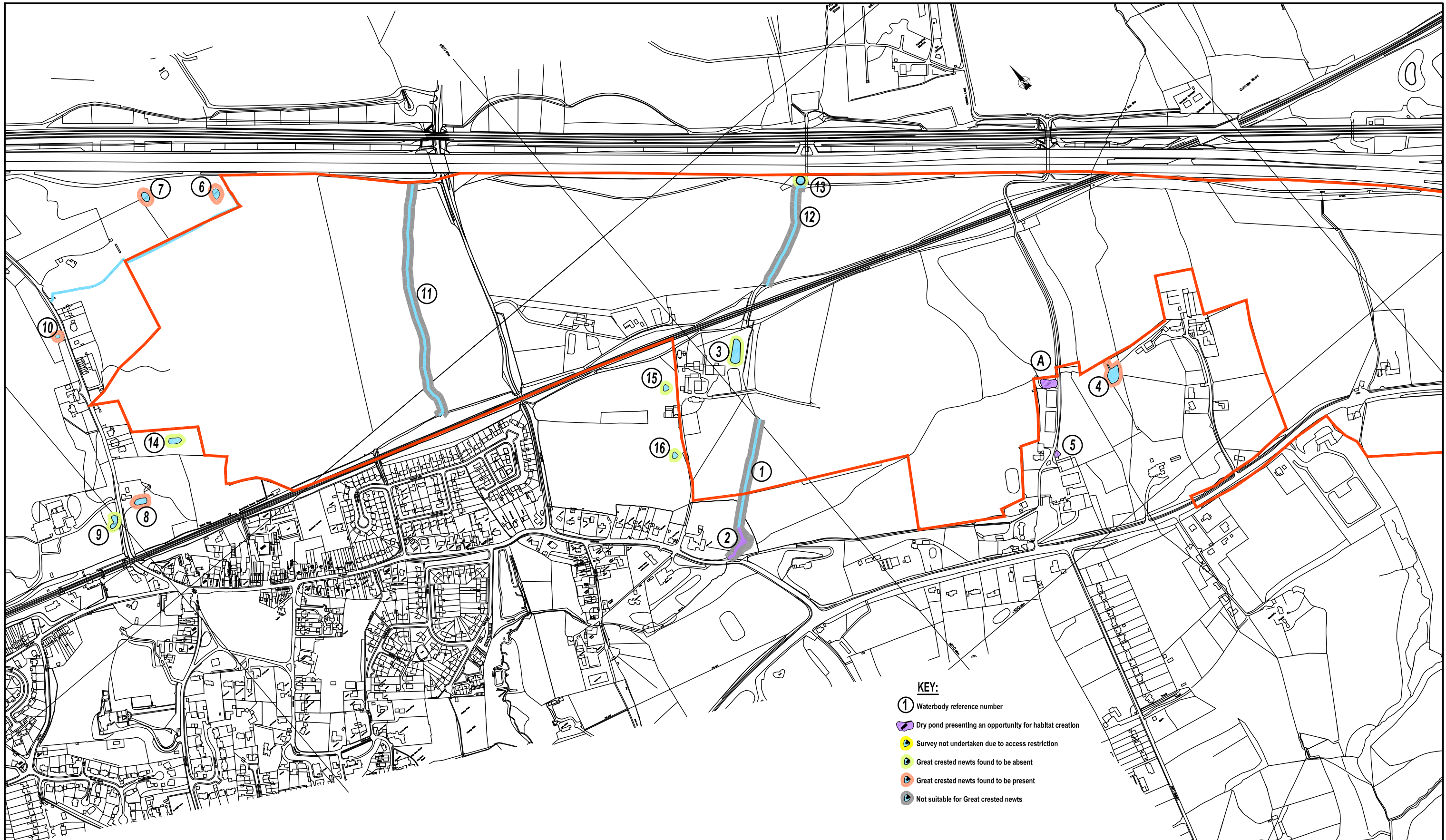


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KEY:
— Site Boundary



Figure 2 Location and Status of Ponds



REV	DATE	BY	DESCRIPTION	CHK	APD
DRAWING STATUS: FINAL					


WSP
 Mountbatten House, Basing View, Basingstoke, Hampshire, RG21 4HJ
 Tel: +44 (0)1256 318800 Fax: +44 (0)1256 318700
<http://www.wspgroup.com>

CLIENT:
 Kent International Gateway Ltd.

PROJECT:
 Kent International Gateway

TITLE:
 Waterbodies

SCALE @ A3: 1:6500	CHECKED: AB	APPROVED: AB
CAD FILE:	DESIGN-DRAWN: KAM	DATE: AUGUST 2007
PROJECT No: 12070549	DRAWING No: Figure 2	REV: -
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Appendix A Raw Survey Data

Temp	11 to 6°C Dry				12 to 6°C Dry				15°C Dry				16°C Dry			
Pond	18/04/06 – 19/04/06				19/04/06 – 20/04/06				24/04/07				17/05/07			
	Torching	Bottles	Egg	Net	Torching	Bottles	Egg	Net	Torching	Bottles	Egg	Net	Torching	Bottles	Egg	Net
8	3m GCN 3f GCN 2 U	3m GCN 1m P	Present	-	17m GCN 7f GCN	4m GCN 2f GCN	Present	-	14m GCN 4f GCN	-	-	-	15m GCN 11f GCN	-	-	-
15	2m 2f S	9f 5m S	0	0	13f 9m S	12f 5m S	0	1f 1m 1 eft S	7m 13f S	-	0	1f 1m 1 eft S	1 CF 15m 23f S	-	0	3m 2f S
16	20 f >20m S	-	0	0	44f 34m S	-	0	1f S	9m 11f S 2 CF	-	0	2m 2f S 2	1 CF 4m 8f S	-	0	1m S

Key:

- S – Smooth newt
- P – Palmate newt
- GCN – Great crested newt
- M – Male
- F – Female
- U – Unidentified small newt (i.e. not a great crested newt)
- CF – Common frog