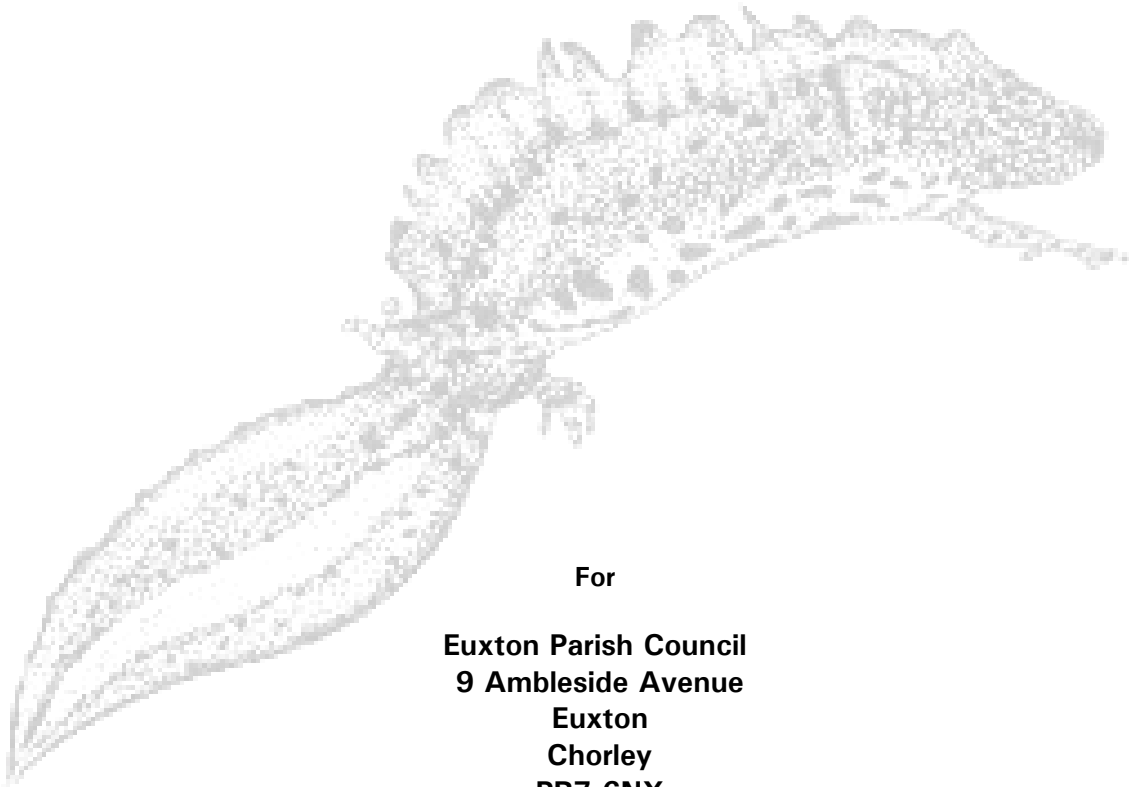


LAND OFF PEAR TREE LANE, EUXTON

AMPHIBIAN SURVEY 2009

(Report Ref: 1976.001)



For

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June 2009

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CONTENTS	PAGE
1.0 INTRODUCTION	1
2.0 SITE DESCRIPTION	1
3.0 METHODS	2
4.0 RESULTS.....	2
5.0 CONCLUSIONS	3
6.0 IMPLICATIONS AND RECOMMENDATIONS	4
7.0 REFERENCES AND FURTHER READING.....	4

APPENDICES

Appendix A: Amphibian survey methods and results

DRAWINGS

G1817.001 Phase 1 habitat survey 2008

1.0 INTRODUCTION

- 1.1 TEP was previously commissioned to in September 2008 to undertake an ecological assessment including a phase 1 habitat survey and a habitat suitability index (HSI) of the pond on site. Following the initial assessment of the site and pond amphibian surveys were recommended. TEP was commissioned in March 2009 by Euxton Parish Council to carry out an amphibian survey of land off Pear Tree lane, Euxton.
- 1.2 This report has the following objectives:
- to identify the presence/absence of great crested newts within the site;
 - to advise of further surveys or mitigation requirements that might be needed prior to development of the site.
- 1.3 A general overview of planning policy and legislation in England is available to download from TEP's website (www.tep.uk.com).

2.0 SITE DESCRIPTION

GENERAL DESCRIPTION

- 2.1 The site is situated to the north east of Euxton town centre (NGR - SD 561 194), near Chorley, Lancashire. The survey area location is illustrated in Figure 1 and a habitat map is present at drawing G1817.001.

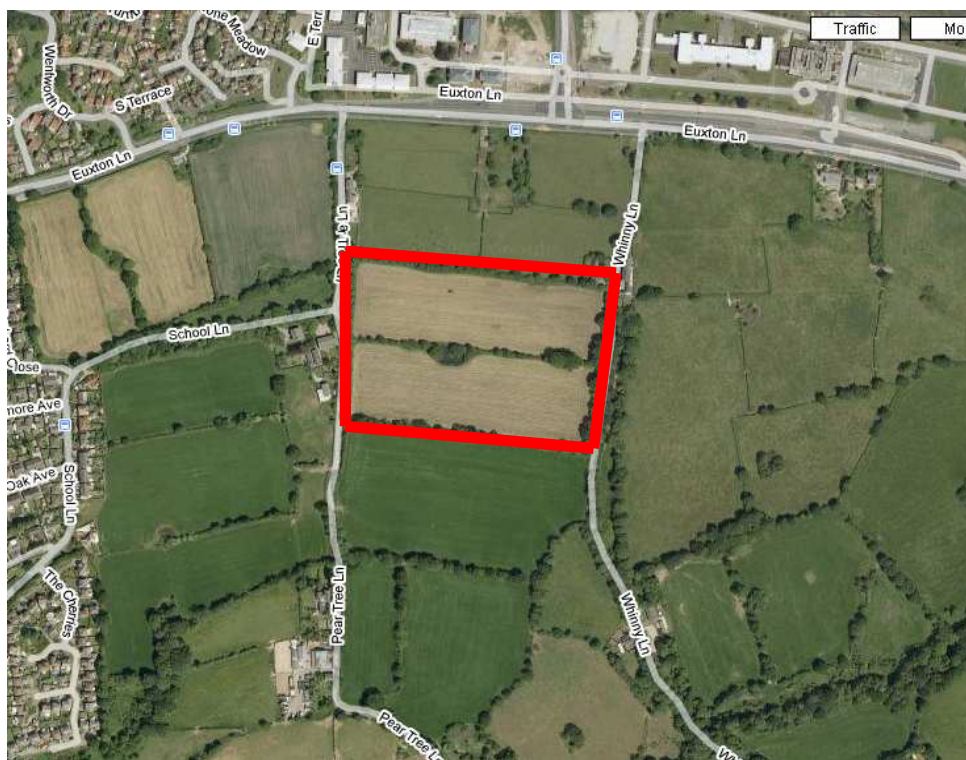


Figure 1: Aerial image of the land off Pear Tree lane and surrounding landscape

- 2.2 The survey area comprises two improved grassland fields bordered by hedges and trees. There is also a hedge with trees that divides the site. There is one pond on

site, it is located in the centre along the hedgerow. The site is surrounded by open grassland fields and hedgerows.

- 2.3 A review of OS maps of the wider area followed by a walkover of adjacent land indicates there are no more ponds within 200m of the pond on site.
- 2.4 Current development proposals involve creation of recreational area with an associated changing room block and car park.

3.0 METHODS

- 3.1 Legislative context and details of survey methods for amphibians are presented at Appendix A. The methods and effort of the survey were carried out in accordance with the current “*Great Crested Newt Mitigation Guidelines*” (English Nature 2001).
- 3.2 The single pond, present within the site, was surveyed for the presence of amphibians during the survey period (April – June) in 2009. A combination of survey techniques was used at this site to give a full picture of amphibian activity and to compensate for limitations with any single technique.
- 3.3 The amphibian survey followed the following strategy:
- A Habitat Suitability Index (HSI);
 - Torch lit surveys of the pond throughout peak season;
 - Netting of the pond throughout peak season;
 - Egg-search in pond in (April - May) to confirm presence/absence & breeding;
 - Terrestrial habitat and refuge search;
 - Calculation of pond-based population estimate;
- 3.4 Survey visits were undertaken on the 19th March, 6th April, 15th April, 28th April, 28th May and 8th June 2009.

4.0 RESULTS

- 4.1 Detailed survey findings are presented at Appendix A and a summary is given below.

Amphibian habitat suitability index

- 4.2 The pond located on site was assessed for its potential to support great crested newts. Individual values are given at Table 1, below.

Table 1: Habitat Suitability Indices 2009

Waterbody	HSI	Suitable for great crested newts? (after Oldham <i>et.al.</i> 2000)
Pond 1	0.681	Average suitability

Amphibian survey results 2009 summary

- 4.3 A pond description is provided at Appendix A. Results of the 2009 surveys are detailed at Appendix A and are summarised in Table 2 and Table 3, below.

Table 2: Presence/absence of amphibians 2009

Pond	GCN	SN	PN	T	F	Fish	Identifying Method
1	✓	✓	✓	✓	✓	*	Torch, bottle, net and egg search

Key: GCN = great crested newt; SN = smooth newt; PN = palmate newt; T = toad; F = frog

Table 3: Peak counts of amphibians, 2009

TORCH	GCN	SN	PN	T	F
19 Mar 09				1	1
6 Apr 09	1	1	1		
15 Apr 09	Eggs	7	1		Eggs
28 Apr 09		2			
28 May 09		1			
8 Jun 09		3	1	1	

Key: GCN = great crested newt; SN = smooth newt; PN = palmate newt; T = toad; F = frog

Population size and distribution

- 4.4 It is useful to make an estimate of the population size and distribution of great crested newts. This estimate can be used to inform landscape and mitigation strategies required for planning applications and for licensed conservation schemes.
- 4.5 One adult GCN and GCN eggs were identified at this site during the 2009 amphibian surveys. According the population size classification guidelines (English Nature 2001), the GCN population at this site can be classed as **Small**.
- 4.6 There is one pond within 250m (210m to the north) of the on site pond. Typically ponds within 250m are considered part of the same metapopulation. However, access could not be obtained for this pond.

5.0 CONCLUSIONS

- 5.1 The site location and landscape context are presented at Figure 1 and a habitat plan is presented at drawing G1817.001. Results of the amphibian survey are detailed in Appendix A.
- 5.2 Current development proposals involve creation of recreational area with an associated changing room block and car park.
- 5.3 The pond on site was assessed using the Habitat Suitability Index (HSI). Under the HSI assessment the waterbody was considered to have 'average' suitability for supporting great crested newts. However, it should be noted that this assessment has not been designed as a substitute for newt surveys, it provides an assessment of the likelihood that GCN will be present in a waterbody and not a definitive verdict on actual presence/absence. Its strength lies in the larger scale assessment of ponds, for example when choosing where conservation effort should be focussed in an area or when assessing habitat suitability for this species at the landscape scale.
- 5.4 Great crested newts were identified on site during the 2009 amphibian surveys. The single pond on site was calculated to support a small population of great crested newts. Smooth newts, palmate newts, toads and frogs were also

identified within the pond during the surveys. Common toad is a United Kingdom Biodiversity Action Plan (UKBAP) priority species and any pond supporting BAP species qualifies as BAP habitat.

- 5.5 It is probable that the nature of the proposed works on the site will impact upon the great crested newt population on site.

6.0 IMPLICATIONS AND RECOMMENDATIONS

- 6.1 Great crested newts were identified on site during the 2009 amphibian. A Natural England licence is required to permit lawful land clearance and development of the land off Pear Tree Lane, Euxton.
- 6.2 A detailed mitigation Method Statement is required as part of the Natural England great crested newt licence application. Any method statement will include details on the capture and translocation of amphibians to an appropriate receptor site. The current proposals will see the replacement of improved grassland with amenity grassland; however the pond will be retained.
- 6.3 It is important that connective habitat (e.g. hedgerows) are retained/created to allow newts to move from the pond to the terrestrial and aquatic habitat in the surrounding area (particularly to the north).
- 6.4 Consideration will need to be given to mitigating and compensating for the loss of terrestrial newt habitat. However, as the great crested newt pond is to be retained in the development there will be no need to create new aquatic habitat.

7.0 REFERENCES AND FURTHER READING

ENGLISH NATURE (2001) *Great crested newt mitigation guidelines*. English Nature, Peterborough.

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APPENDIX A

Amphibian survey methods and results

APPENDIX A: AMPHIBIAN SURVEY METHODS AND RESULTS

A1.0 STATUTORY AND LEGISLATIVE CONTEXT

A1.1 Great crested newts (*Triturus cristatus*) and their habitat (aquatic and terrestrial) are afforded full protection by the *Wildlife and Countryside Act 1981* (Section 9, Schedule 5). This Act is the domestic implementation of the *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) and was amended by the *Countryside and Rights of Way Act 2000*. They are also included in Schedule 2 the *Conservation (Natural Habitats & c.) Regulations 1994*, which are the domestic implementation of the *EC Habitats Directive*.

A1.2 The Wildlife and Countryside Act 1981 and The Habitats Regulations 1994 have recently been amended by Statutory Instrument 2007 No 1843. In the context of potential development activities affecting newts, this legislation makes it illegal to:

- deliberately capture, injure or kill any great crested newt;
- deliberately disturb great crested newts in such a way as to be likely to significantly affect:
 - i. the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or
 - ii. the local distribution or abundance of that species;
- damage or destroy a breeding site or resting place of such an animal;
- deliberately or recklessly disturb a great crested newt while it occupies a place of shelter or protection.

A1.3 Both the *Wildlife and Countryside Act 1981* and the *Habitats Regulations 1994* apply to all stages of the protected species; eggs, larvae, juveniles and adults are all protected.

Licensing procedures

A1.4 In the case of conservation/habitat works, exemption from the protection afforded for great crested newts under Section 39 of the *Conservation (Natural Habitats, & c) Regulations 1994* can be granted by means of a licence from Natural England.

A2.0 POND DESCRIPTION

A2.1 The pond is located in the centre of the site along a hedge. The pond is large and shaded by trees on one side. There is minimal aquatic vegetation and the water is turbid.

A3.0 METHODS

TORCH LIT SURVEY

A3.1 British amphibian adults are largely crepuscular, becoming most active in the dawn and dusk periods. All three species of native newt usually move to more open areas to perform courtship displays, move to shallow/vegetated areas for egg laying, and/or rise to the surface occasionally to breathe. During these activities they are easily spotted in the torch beam

- A3.2 The waterbody was surveyed by walking the perimeter of a pond after dusk and searching the water with a powerful torch¹. It was possible to achieve 100% coverage of shoreline of the waterbody using the torch lit surveys.

EGG SEARCH

- A3.3 Great crested newts lay their eggs singly on the leaves of submerged vegetation and then the vegetation is folded over the egg to form a protective 'purse'. The eggs of great crested newts can be distinguished from those of the two smaller newt species (smooth (*Triturus vulgaris*) and palmate newts (*T. helveticus*) because they are slightly larger (3 – 4mm) with a pale lemon coloured yolk. The smooth and palmate newt eggs are 2 – 3mm with a white or grey tinged yolk. A female great crested newt can lay 300+ eggs (e.g. Hagstrom 1980) so detection rates for eggs are higher than for adults.
- A3.4 The presence of eggs confirms the waterbody as a breeding site. However, it is *impossible* to obtain any reliable population estimate on the basis of a newt egg count. Also, it is undesirable for the conservation of the species to survey for eggs intensively, as the unfolding of vegetation to confirm type of egg will tend to render the egg more vulnerable to predation or to being dislodged. Therefore, no attempt was made to quantify the number of eggs in a pond; searching was stopped once an egg had been found.
- A3.5 Searching for newt eggs is useful between March and July (peak egg laying period April to June). Not all eggs are viable, so although most eggs will have hatched by June, non-viable eggs will remain on vegetation longer before decaying or becoming predated.
- A3.6 Aquatic vegetation was searched for newt eggs in April - May by walking or wading the shoreline and looking for the characteristic shape of folded leaves on favoured plants for ovipositing.

HAND NETTING

- A3.7 The pond was hand netted during the night to search for great crested newts and great crested newt larvae. The standard procedure for hand netting was used; a D-net swept vigorously through the water in 2m sweeps with a survey effort of 15 minutes per 50m of shoreline (NCC 1989, Froglife Advice Sheet 11).

TERRESTRIAL SEARCH

- A3.8 A number of potential amphibian refugia were located on site. These were hand searched and subsequently restored to their original resting place. Areas of scrub and marginal grass were also hand searched.

TIMING

- A3.9 The pond at this site was surveyed using a combination of survey techniques to give a full picture of amphibian activity and to compensate for the limitations of any one particular technique. Torch lit surveys, bottle trapping, egg searches, hand netting and terrestrial searches were employed during the peak period of breeding activity (March to June). Egg searches were carried out in March – April.
- A3.10 Surveys were carried out on the following dates, using the following methods [Table (a)]:

¹ Clulite, one million candle power

Table (a): Summary of Field Survey Techniques

Survey Dates	Torchlit Counts	Bottle Trapping	Netting	Egg Search	Terrestrial Search
19 Mar 09	✓				✓
6 Apr 09	✓	✓		✓	✓
15 Apr 09	✓	✓		✓	✓
28 Apr 09	✓				✓
28 May 09	✓	✓	✓		✓
8 Jun 09	✓	✓			✓

WEATHER CONDITIONS

- A3.11 Weather conditions on the nights of survey were reasonable, with no appreciable rain or wind affecting survey. Air temperatures ranged from 6°C to 11°C and water temperatures ranged from 9°C to 13°C during the survey nights.

PERSONNEL

- A3.12 The standard methods of surveying for great crested newts described above are licensable activities. All surveys were conducted by licensed surveyors Chris Barrett (licence number 20090484), Sally Cowley (licence number 20080035), Dave Sweeting (licence number 20092003) and Rachel Hayward (licence number 20091422).

LIMITATIONS OF SURVEY

- A3.13 It is rare for any site to be able to be surveyed using all the available techniques to full effect, as there are often reasons of season, weather, access which restrict survey intensity. In this case, restrictions in visibility were encountered through dense marginal vegetation along the side of the pond.
- A3.14 It was not possible to survey the entire perimeter of the pond due to dense vegetation and steep banking. The pond was also turbid which limited the effectiveness of the torch surveys.
- A3.15 The general quality and range of the habitat present was assessed for its ecological value during an initial walkover of the site. The occurrence of habitats particularly suitable for great crested newts was noted.

A4.0 RESULTS

TORCH LIT SURVEY

A4.1 No great crested newts were found in the pond on this site during the 2009 torch lit surveys [Table (b)]. Frogs and toads were identified.

NETTING SURVEY

A4.2 No great crested newts were found in the pond on site during the 2009 netting surveys.

EGG SEARCH

A4.3 Great crested newt eggs were found in the pond on site during the 2009 egg searches. Frogspawn was observed within the pond.

BOTTLE TRAPPING

A4.4 Great crested newts were found during the 2009 bottle trapping survey. Smooth newts and Palmate newts were also identified.

Table (b): Bottle trapping survey results 2009

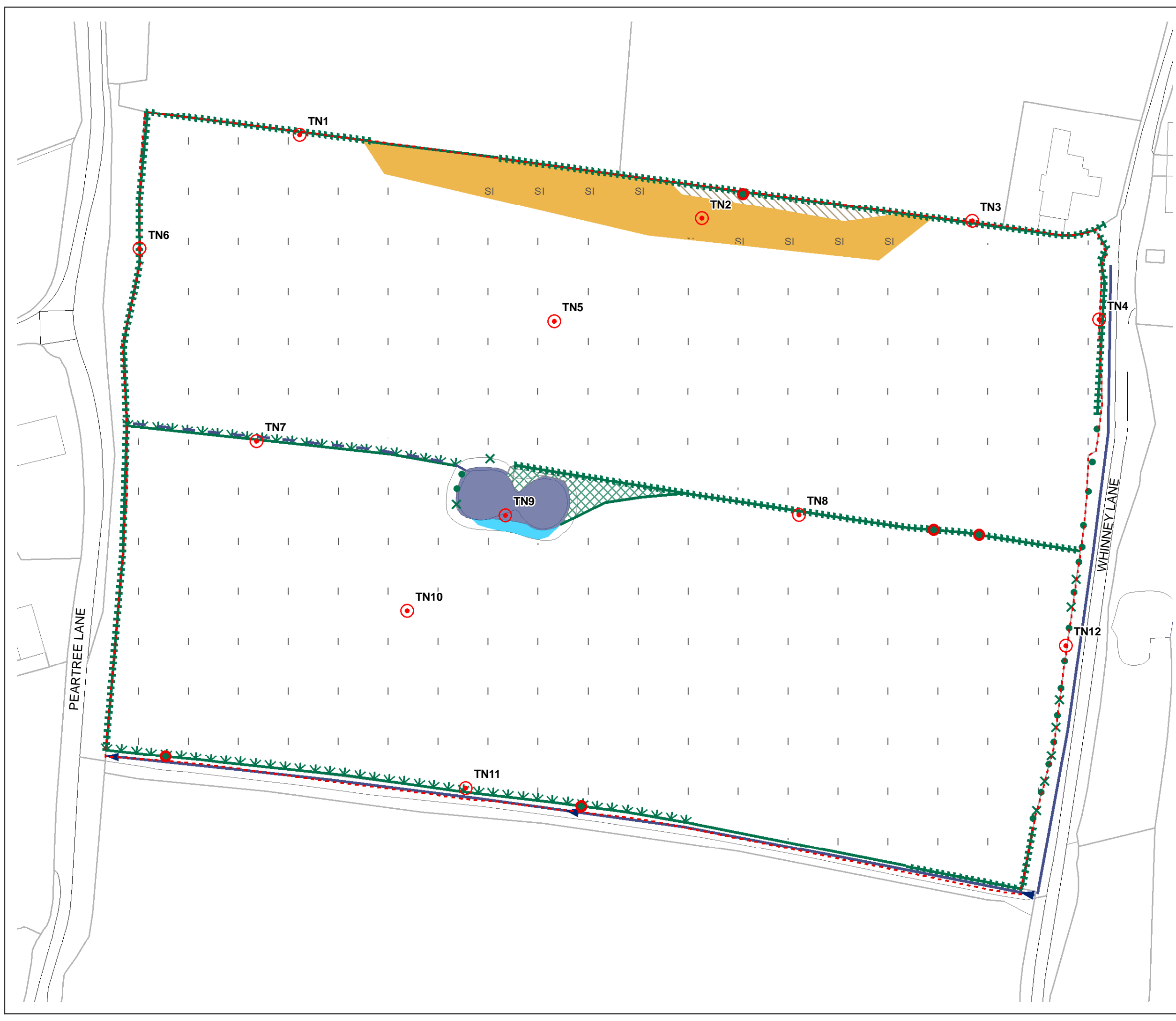
Pond	Survey dates	% shoreline covered	Tc	Th	Tv	Rt	Bb	Other	Conditions
1	19 Mar 09	70				1	1		Calm/Dry
	6 Apr 09	70	1	1	1				Light rain
	15 Apr 09	70		1	7				Windy
	28 Apr 09	70			2				Calm/Dry
	28 May 09	70			1				Dry/Clear
	8 Jun 09	70		1	3		1		Dry/Clear

Note: Tc = great crested newt; Tv = smooth newt; m = male; f = female; Rt = common frog; Bb = common toad; S = spawn; T = Rt/Bb tadpole; L = newt larva; imm = immature; SB = stickleback.

TERRESTRIAL SEARCH

A4.5 No great crested newts were found during the 2009 terrestrial searches.

DRAWINGS



- ### Key
- Site boundary
 - Target notes
 - Dense scrub
 - x Scattered scrub
 - Scattered broad-leaved trees
 - Trees with bat potential
 - SI Semi-improved neutral grassland
 - Improved grassland
 - Tall ruderal herbs
 - Swamp
 - Standing water
 - ▶▶ Running water
 - Species-poor intact hedge
 - Species-poor hedge and trees
 - Native species-rich hedge and trees
 - Wet ditch
 - Dry ditch

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Project:
 Land off Peartree Lane,
 Euxton, Chorley

Title:
 Phase 1 Habitat Survey

Map No.
 G.1817.001

Scale: 1:1,000 @ A3	Date: 10/10/08
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Drawn: VG	Checked: RH	Approved: RH
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