LAND WEST OF MOOR FARM, CLIFFE ROAD, NORTH NEWBALD, EAST RIDING OF YORKSHIRE, PLANNING APPLICATION NO: DC/16/01276/OUT/EASTSE).

GREAT CRESTED NEWT APPRAISAL (JANUARY 2017)

ces ecology
consultant ecologists

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1.0 EXECUTIVE SUMMARY

1.1 Cheshire Ecological Services Ltd (CES) was commissioned to undertake a great crested newt (GCN) aquatic and terrestrial appraisal, assess the predicted development effect and formulate appropriate and proportionate GCN mitigation and habitat enhancement measures in connection with proposed development involving the erection of two livestock buildings, access track and associated infrastructure at Land West of Moor Farm, Cliffe Road, North Newbald, East Riding of Yorkshire (Planning Application No. DC/16/01276/OUT/EASTSE). The proposed development site extends to approximately 0.6 Hectares of improved grassland.

1.2 The appraisal was led by CES Principal Ecologist James Grundy ACIEEM assisted by Ecologist Matt Lawton BSc (Hons) ACIEEM under the terms and conditions of a GCN Class Licence (WML-CL08 Registration: No. 2015-18763-CLS-CLS) and in accord with current Natural England guidance.

1.3 The appraisal undertaken in respect of the proposed development included a site walkover inspection visit by the CES ecologists on 16th January 2017, a review of OS and aerial mapping and consideration of historic GCN survey data relating to the local area sourced from the Extended Phase 1 Habitat Survey (June 2016) produced by Wold Ecology Ltd in respect of the proposed development, and GCN survey data supplied by the North & East Yorkshire Ecological Data Centre.

1.4 All water-bodies identified on OS and aerial mapping of the local area as potentially extant at or within 500 metres of the proposed development site were considered as part of the appraisal.

1.5 The review of OS and aerial mapping/imaging and the walk-over inspection of the proposed development site and neighbouring land established that thirty five water bodies (Ponds: 1, 2, 3, 4, 5, 6, 7, A, B, C, D & E, and an extensive interlinked system of flowing drainage ditches/dykes: D1 to D23) were extant within 500 metres of the development site boundary.

1.6 Based on the terrestrial range of individual GCN (generally <250 metres, occasionally >500 metres, rarely >1 kilometre from their breeding site) it was concluded that Ponds 2, 3, 4, 5, 6 & 7 were relevant to the appraisal effort.

1.7 Ponds 1, A, B, C, D & E and drainage ditches/dykes D1 to D23 were not considered relevant for further consideration on the basis that they were effectively isolated from the proposed development site by distance and/or restricted habitat connectivity and/or they did not did not offer GCN with suitable breeding habitat. It was noted that many of the ditches/dykes were either dry, part dry or contained flowing water (UK amphibians do not generally breed in flowing water).

1.8 As part of the appraisal a GCN 'Habitat Suitability Index' (HSI) score and categorisation was calculated for Pond 2, 3, 4, 5, 6 & 7 (albeit access to ponds 5, 6 & 7 was restricted and the HSI was 'out of season' partially constraining the findings).

1.9 In respect of GCN appraisal/survey effort it is important to note that Natural England publicly consulted on four proposed new policies for European Protected Species (EPS) mitigation licensing on Defra's behalf between February and April 2016. The proposed policies sought to achieve better outcomes for EPS and reduced unnecessary costs, delays and uncertainty that can be inherent in the current system. These policies have now been approved by Defra (December 2016). NB: *Policy 4 proposed a reduced survey effort in circumstances where the impacts of development can be confidently predicted.*

1.10 The Extended Phase 1 Habitat Survey (June 2016) carried out by Wold Ecology Ltd, in respect of the proposed development, resulted in the discovery of GCN leaf folds and eggs at Pond 3 (located approximately 70 metres from the proposed development site) and robustly established that the pond was a GCN breeding site.

1.11 The historic GCN survey data supplied by Wold Ecology Ltd and the North & East Yorkshire Ecological Data Centre (NEYEDC) established GCN presence at a number of sites including Holme upon Spalding Moor, South Cave and Market Weighton; indicating that GCN are widespread within the local area (defined by Natural England as within 10 kilometres).

1.12 At the time of the appraisal walkover inspection visit terrestrial habitat to be directly impacted by the proposed development was assessed to offer GCN with few/no shelter opportunities and foraging and dispersal habitat, categorised by CES, as 'Average'.

1.13 Given that the propose development area offers GCN with few/no shelter opportunities and foraging and dispersal habitat, categorised by CES, as 'Average', and the availability of extensive GCN terrestrial shelter, hibernation and foraging habitat adjacent Ponds 2, 3 & 4 (categorised as 'Excellent') it has been concluded that GCN are reasonably unlikely to be present within the area to be directly impacted by the proposed development.

1.14 Based on the available historic GCN survey data and the 2017 CES appraisal findings, it was considered reasonable to conclude that a small to medium GCN meta-population size class is likely to be associated with Ponds 2, 3, 4, 5, 6 & 7 and that the survey data available was sufficient to allow the impacts of the proposed development to be confidently predicted.

1.15 No GCN breeding sites or other aquatic habitat will be lost or damaged as a consequence of the proposed development.

1.16 The proposed development will not increase the historic and existing level of habitat fragmentation at the site level.

1.17 The proposed development will not increase (from current and historic levels) the risk of post-development human interference impacts on the Small to Medium GCN meta-population considered likely to be associated with Ponds 2, 3, 4, 5, 6 & 7 and/or the aquatic and terrestrial habitats associated with these ponds and/or other water bodies in the local area.

1.18 It is considered that the proposed development will result in some; partial destruction, temporary disturbance and/or temporary destruction followed by reinstatement and modified management of features classified, by the English Nature Great Crested Newt Mitigation Guidelines 2001 as Immediate, Intermediate and Distant terrestrial habitat. Consequently, the predicted scale of negative impact on GCN (in the absence of any mitigation measures) can be reliably categorised as 'Low'.

1.19 Based on the appraisal findings it has been concluded that GCN are not, in any way, reliant on the habitats within the proposed development site. Consequently, the commencement of development at the site is considered highly unlikely to result in a breach of current wildlife legislation relating to the species and will not have a significant negative impact on the conservation

status of the Small to Medium GCN meta-population considered likely to be associated with Ponds 2, 3, 4, 5, 6 & 7.

1.20 However, there remains a possibility (albeit slight) that the unmitigated commencement of development at the site could potentially adversely impact on individual GCN in the unlikely event that they were to inadvertently stray into the working area following the commencement of development works and take cover under/within temporary shelter habitat incidentally created as a consequence of the works, i.e. disturbed ground, excavations, spoil mounds and/or stored materials.

1.21 Following careful consideration of the appraisal findings and given the relatively limited scale of the proposed development, the predicted low development impacts, the legal protection afforded to the species and current guidance issued by Natural England in respect of low impact developments, it was concluded appropriate to recommend the implementation of non-licensed GCN Reasonable Avoidance Measures and habitat enhancement in respect of the proposed development.

1.22 It has been concluded that undertaking any additional GCN aquatic survey effort in respect of the proposed development would not be appropriate, proportionate or necessary and would not alter the predicted development effect and 'Low' scale of impact or result in any material changes to the recommended implementation of non-licensed GCN Reasonable Avoidance Measures and habitat enhancement.

1.23 CES have concluded that the successful implementation of the GCN Reasonable Avoidance Measures and habitat enhancement detailed in this appraisal report would enable the proposed development to proceed lawfully and will ensure that the favourable conservation status of the Small to Medium GCN meta-population considered likely to be associated with Ponds 2, 3, 4, 5, 6 & 7 is maintained within its natural range.

2.0 INTRODUCTION

2.1 Cheshire Ecological Services Ltd (CES) was commissioned to undertake a great crested newt (GCN) aquatic and terrestrial appraisal, assess the predicted development effect and formulate appropriate and proportionate GCN mitigation and habitat enhancement measures in connection with proposed development involving the erection of two livestock buildings, access track and associated infrastructure at Land West of Moor Farm, Cliffe Road, North Newbald, East Riding of Yorkshire (Planning Application No. DC/16/01276/OUT/EASTSE). The proposed development site extends to approximately 0.6 Hectares of improved grassland. Refer to Appendix A(i): Location Plan (OS) & Appendix A(ii): Location Plan (Aerial).

2.2 The appraisal was led by CES Principal Ecologist James Grundy ACIEEM assisted by Ecologist Matt Lawton BSc (Hons) ACIEEM under the terms and conditions of a GCN Class Licence (WML-CL08 Registration: No. 2015-18763-CLS-CLS) and in accord with current Natural England guidance. James Grundy is fully conversant with GCN appraisal/survey methodologies, the English Nature Great Crested Newt Mitigation Guidelines 2001 (EN GCN MG) and current guidance issued by Natural England and legislation relating to the species. He has extensive experience gained as the Appointed Ecologist on GCN licensed and non-licensed mitigation and GCN/protected species projects over the past thirty years. Refer to Appendix B: Principal Ecologist's Experience & Appendix C: GCN and Protected Species Legislation.

The objective of the appraisal was to establish:

- The extent, status and relevance of aquatic and terrestrial habitats located at and within 500 metres of the proposed development site;
- GCN presence/likely absence and population size class at the site level and within the local area;
- The predicted development effect and scale of impact on GCN;
- The likely impact of development on the favourable conservation status of any GCN population/s associated with the local area;
- Potential legal and licensing implications in respect of current wildlife legislation relating to GCN;
- Appropriate GCN mitigation and habitat enhancement measures to address the predicted development effect and level of impact on GCN.
- Any requirement for additional GCN survey effort to be undertaken.

2.3 This report should enable the Local Planning Authority to make an informed decision as to whether it is possible to discharge their responsibilities under current planning guidance, in relation to GCN, in respect of the proposed development. Refer to Appendix D: Natural England Local Planning Authority GCN Standing Advice Guidance - Flowchart.

3.0 APPRAISAL METHODS

3.1 A GCN aquatic and terrestrial appraisal undertaken in relation to proposed development should be carried out by a suitably licensed ecologist and employ a combination of recognised methodologies, as detailed in The English Nature Great Crested Newt Mitigation Guidelines 2001 (EN GCN MG) and in accordance with current Natural England guidance. Refer to Appendix E: GCN Appraisal/Survey Methods).

3.2 The EN GCN MG indicates that a GCN appraisal may be necessary to check for the presence of the species if background information on distribution suggests that they may be present. Detailed indicators include:

- Any historical records for GCN on the site, or in the general area.
- A pond on or near the site (within around 500m), even if it holds water only seasonally. Note that muddy, cattle-poached, heavily vegetated or shaded ponds, ditches and temporary flooded hollows can be used by GCN.
- Sites with refuges (such as piles of logs or rubble), grassland, scrub, woodland, or hedgerows within five hundred metres of a pond.

3.3 Natural England advises that a GCN 'Habitat Suitability Index' score (Oldham *et al* (2000)) is calculated for all Ponds and water bodies considered relevant to the appraisal. As part of the appraisal, the predicted development effect and scale of impact on GCN, breeding, shelter, foraging and dispersal habitat should be assessed and appropriate GCN mitigation and habitat enhancement measures formulated.

3.4 The EN GCN MG indicate that four visits, undertaken in accordance with EN GCN MG aquatic appraisal/survey methodology, resulting in consistent negative findings represents sufficient effort to robustly establish GCN 'likely absence' at a water body.

3.5 The EN GCN MG recommend that, where access permission can be obtained, a GCN population size class assessment aquatic appraisal/survey (generally required to inform a GCN mitigation licence application for large scale moderate/high impact development projects) may require up to six visits, carried out on non-consecutive nights, in appropriate weather conditions, at the appropriate time of year (mid-March to mid-June) to all the water bodies within the appraisal/survey area where GCN presence has been established. Should six visits be required at least three should be undertaken between mid-April and mid-May.

3.6 The GCN population size class is derived from the peak count. This is the combined sum of the highest number of adult GCN observed or captured during the same visit. GCN population size class based on the EN GCN MG categorisations are shown below.

- Small population size class: 1 to 10 individual adult GCN
- Medium population size class: 11 to 100 individual adult GCN
- Large population size class: 100 plus individual adult GCN

3.7 However, it should be noted that establishing GCN/amphibian presence at a site may only require a single visit. The discovery of adult and/or sub-adult GCN/amphibians within a water body or terrestrially will confirm that they are associated with the site. The discovery of GCN/amphibian eggs, spawn, larvae or tadpoles is sufficient to confirm that a water body is a breeding site for that species.

3.8 Where access permission to inspect a water body cannot be obtained and/or it is not possible to undertake appraisal/survey effort at the appropriate time of year (mid-March to mid-June) the likely GCN population size class associated with a site can generally be reliably predicted, by an experienced GCN ecologist, using historic GCN appraisal/survey/monitoring records and/or the local status of the species combined with an assessment of the availability and suitability of aquatic and terrestrial habitats at, and neighbouring the site.

3.9 The appraisal undertaken in respect of the proposed development included a site walkover inspection visit by CES ecologists on 16th January 2017, a review of OS and aerial mapping and consideration of historic GCN survey data, relating to the local area sourced from the Extended Phase 1 Habitat Survey (June 2016) produced by Wold Ecology Ltd in respect of the proposed development, and GCN survey data supplied by the North & East Yorkshire Ecological Data Centre (NEYEDC).

3.10 As part of the appraisal, the predicted development effect on GCN and their breeding, shelter, foraging and dispersal habitat was assessed and appropriate GCN mitigation and habitat enhancement measures were formulated.

4.0 APPRAISAL AREA DESCRIPTION

4.1 The proposed development site extends to approximately 0.6 Hectares of improved grassland and is set within a further 5.0 hectares of improved grassland bounded by hedgerows, drainage ditches/dykes with extensive woodland (Houghton Moor & Tindal Moor) located to the north and west and farmland to the south and east. Refer to Appendix F: Photographic Plates.

4.2 No water bodies were identified to be extant within the area proposed for development.

4.3 The main terrestrial habitat types at the proposed development site, their extent and suitability for GCN/amphibians are detailed in Table 1 below:

Table 1: Development Site Habitat Type, Extent & GCN/Amphibian Suitability

Habitat type	Approximate Area (Ha)/length	Suitability for GCN/Amphibians
Improved grassland	0.6Ha	'Average'

4.4 At the time of the appraisal walkover inspection visit terrestrial habitat to be directly impacted by the proposed development was assessed to offer GCN with few/no shelter opportunities and foraging and dispersal habitat, categorised by CES, as 'Average'.

4.5 The terrestrial habitat suitability categorisations used by CES are based on the Terrestrial Habitat Suitability Index (THSI) developed by James Grundy ACIEEM (Principal Ecologist) and Faye Davies BSc (Hons) MSc MCIEEM

(Senior Ecologist). The THSI is necessarily a broad interpretative tool that can only provide general guidance when categorising the suitability of terrestrial habitat for GCN/amphibians. The THSI relies implicitly on the experience and professionalism of the ecologist using the Index for consistency and accuracy. The THSI has been developed to help standardise GCN/amphibian terrestrial habitat assessments/categorisations and provide more accurate and consistent data to help inform the decision-making process relating to GCN/amphibian mitigation projects. Refer to Appendix G: Terrestrial Habitat Suitability Index.

4.6 All water-bodies identified on OS and aerial mapping of the local area as potentially extant at or within 500 metres of the proposed development site were considered as part of the appraisal.

4.7 The review of OS and aerial mapping/imaging and the walk-over inspection of the proposed development site and neighbouring land established that thirty five water bodies (Ponds 1, 2, 3, 4, 5, 6, 7, A, B, C, D & E and an extensive interlinked system of flowing drainage ditches/dykes D1 to D23) were extant within 500 metres of the development site boundary. N.B: for ease of reference, pond numbers used by CES follow those in the Wold Ecology Ltd. report.

4.8 Based on the terrestrial range of individual GCN (generally <250 metres, occasionally >500 metres, rarely >1 kilometre from their breeding site) it was concluded that Ponds 2, 3, 4, 5, 6 & 7 were relevant to the appraisal effort.

4.9 Ponds 1, A, B, C, D & E and drainage ditches/dykes D1 to D23 were not considered relevant for further appraisal on the basis that they were effectively isolated from the proposed development site by distance and/or restricted habitat connectivity and/or they did not did not offer GCN with suitable breeding habitat. It was noted that many of the ditches/dykes were either dry, part dry or contained flowing water (UK amphibians do not generally breed in flowing water).

4.10 A brief description of the aquatic habitats at Ponds 2, 3, 4, 5, 6 & 7 has been provided for clarity (refer to Appendix E: Photographic Plates).

Pond 2.

Approximate area 0.05Ha, water depth <0.5m, overlying an indeterminate depth of silt. The pond was located approximately 200 metres to the north of the proposed development site boundary and was set within woodland offering GCN with extensive shelter and hibernation opportunities and terrestrial habitat categorised by CES as 'Excellent'. The pond was partially shaded and contained a variety of aquatic/emergent plant species and a moderate diversity of aquatic invertebrates. Fish presence was considered unlikely and no waterfowl impacts were observed during the site walk-over inspection visit. It was concluded that this pond is likely to dry annually.

Pond 3:

Approximate area 0.14Ha, water depth >1m, overlying an indeterminate depth of silt. The pond was located approximately 70 metres to the north of the proposed development site boundary and was set within woodland offering GCN with extensive shelter and hibernation opportunities and terrestrial habitat categorised by CES as 'Excellent'. The pond was partially shaded and contained a relatively limited variety of aquatic/emergent plant species and a moderate diversity of aquatic invertebrates. Fish presence was considered unlikely and no waterfowl impacts were observed during the site walk-over inspection visit. It was concluded that this pond is unlikely to dry completely. The pond is owned/under the full control of the developer.

Pond 4:

Approximate area 0.05Ha, water depth >1m, overlying an indeterminate depth of silt. The pond was located approximately 35 metres to the north of the proposed development site boundary and was set within woodland offering GCN with extensive shelter and hibernation opportunities and terrestrial habitat categorised by CES as 'Excellent'. The pond was heavily shaded and contained a relatively limited variety of aquatic/emergent plant species and a moderate diversity of aquatic invertebrates. Fish presence was considered unlikely and no waterfowl impacts were observed during the site walk-over inspection visit. It was concluded that this pond is unlikely to dry completely. The pond is owned/under the full control of the developer.

Pond 5:

Approximate area 0.02Ha, water depth >1m, overlying an indeterminate depth of silt. The pond was located approximately 175 metres to the east of the proposed development site boundary and was set within an area of managed/rough grassland offering GCN with suitable shelter and hibernation opportunities and terrestrial habitat categorised by CES as 'Above Average'. The pond was partially shaded and contained a variety of aquatic/emergent plant species and a moderate diversity of aquatic invertebrates. Fish presence was considered likely and waterfowl impacts were observed during the site walk-over inspection visit. It was concluded that this pond is unlikely to dry.

Pond 6: Grid Ref:

Approximate area 0.02Ha, water depth >1m, overlying an indeterminate depth of silt. The pond was located approximately 175 metres to the east of the proposed development site boundary and was set within the managed grounds of a neighbouring property offering GCN with suitable shelter and hibernation opportunities and terrestrial habitat categorised by CES as 'Average'. The pond was partially shaded and contained a variety of aquatic/emergent plant species and considered likely to support a moderate diversity of aquatic invertebrates. Fish presence was considered likely and waterfowl impacts were observed during the site walk-over inspection visit. It was concluded that this pond is unlikely to dry.

Pond 7: Grid Ref:

Approximate area 0.05Ha, water depth >1m, overlying an indeterminate depth of silt. The pond was located approximately 175 metres to the east of the proposed development site boundary and was set within the managed grounds of a neighbouring property offering GCN with suitable shelter and hibernation opportunities and terrestrial habitat categorised by CES as 'Average'. The pond was partially shaded, and contained a variety of aquatic/emergent plant species and considered likely to support a moderate diversity of aquatic invertebrates. Fish presence was considered likely and waterfowl impacts were observed during the site walk-over inspection visit. It was concluded that this pond is unlikely to dry.

4.11 As part of the appraisal a GCN 'Habitat Suitability Index' (HSI) score and categorisation was calculated for Ponds 2, 3, 4, 5, 6 & 7 (albeit access to ponds 5, 6 & 7 was restricted and the HSI was 'out of season' partially constraining the findings). The scores calculated are detailed in Table 2 below.

Table 2: HSI scores/categorisation

Water body Ref:	Pond 2	Pond 3	Pond 4
SI1 - Location	1	1	1
SI2 - Pond area	1	0.9	0.9
SI3 - Pond drying	0.1	0.9	0.9
SI4 - Water quality	0.67	0.67	0.67
SI4 - Shade	0.6	0.3	0.3
SI6 - Fowl	0.67	0.67	0.67
SI7 - Fish	1	1	1
SI8 - Ponds	0.7	0.7	0.7
SI9 - Terr'l habitat	1	1	1
SI10 - Macrophytes	0.8	0.3	0.3
HSI	0.66	0.69	0.69
Categorisation	**Average**	**Average**	**Average**

NB: <0.5 poor, 0.5-0.59 below average, 0.6-0.69 average, 0.7-0.79 good, >0.8 excellent

Water body Ref:	Pond 5	Pond 6	Pond 7
SI1 - Location	1	1	1
SI2 - Pond area	0.4	0.4	0.6
SI3 - Pond drying	0.9	0.9	0.9
SI4 - Water quality	0.67	0.67	0.67
SI4 - Shade	0.8	0.8	0.8
SI6 - Fowl	0.67	0.67	0.67
SI7 - Fish	0.33	0.33	0.67
SI8 - Ponds	0.7	0.7	0.7
SI9 - Terr'l habitat	1	0.67	0.33
SI10 - Macrophytes	0.7	0.6	0.7
HSI	0.68	0.64	0.68
Categorisation	**Average**	**Average**	**Average**

NB: <0.5 poor, 0.5-0.59 below average, 0.6-0.69 average, 0.7-0.79 good, >0.8 excellent

4.12 During the walk-over inspection visit and assessment of aerial mapping, it was noted that private, residential gardens/grounds were located within 500 metres of the proposed development site. It was considered possible that some of these gardens/grounds may also contain ponds/ornamental water features potentially used by GCN. However, given the extensive experience of CES with similar projects, it was not considered logistically achievable to establish the presence of and/or incorporate such ponds/ornamental water features into the appraisal effort.

4.13 The potential presence of GCN within neighbouring gardens/grounds and their use of garden ponds/ornamental water features (as detailed in the publication 'Newts in your Pond and Garden', Grundy 2007) was fully considered when assessing the predicted development effect and scale of impact, and formulating appropriate mitigation and habitat enhancement measures to address the development impacts.

4.14 In respect of GCN appraisal/survey effort it is important to note that Natural England publicly consulted on four proposed new policies for European Protected Species (EPS) mitigation licensing on Defra's behalf between February and April 2016. The proposed policies sought to achieve better outcomes for EPS and reduced unnecessary costs, delays and uncertainty that can be inherent in the current system. These policies have now been approved by Defra (December 2016). NB: *Policy 4 proposed a reduced survey effort in circumstances where the impacts of development can be confidently predicted.*

5.0 APPRAISAL FINDINGS

5.1 The significant GCN survey effort expended by ecological consultancies and various conservation groups/organisations in the East Yorkshire area, since the 1980s, has established that the local status of GCN can best be categorised as: frequent and widespread.

5.2 The GCN population size class associated with the majority of GCN breeding sites in the East Yorkshire area can be typically categorised as 'Small' to 'Medium'.

5.3 The occurrence of breeding sites supporting a 'Large' GCN population size class is considered to be atypical and unusual. However, as a consequence of the widespread status of the species within East Yorkshire it is not unusual for 'Small' or 'Medium' GCN populations associated with a breeding site to form part of 'Large' GCN meta-populations associated with the local area.

5.4 The main findings of the CES 2017 GCN appraisal are detailed below:

5.5 The Extended Phase 1 Habitat Survey (June 2016) carried out by Wold Ecology Ltd, in respect of the proposed development, resulted in the discovery of GCN leaf folds and eggs at Pond 3 (located approximately 70 metres from the proposed development site) and robustly established that the pond was a GCN breeding site.

5.6 The historic GCN survey data supplied Wold Ecology Ltd and NEYEDC established GCN presence at a number of sites including Holme upon Spalding Moor, South Cave and Market Weighton indicating that GCN are widespread within the local area (defined by Natural England as within 10 kilometres).

5.7 At the time of the appraisal walk over inspection visit terrestrial habitat to be directly impacted by the proposed development was assessed to offer GCN with few/no shelter opportunities and foraging and dispersal habitat, categorised by CES, as 'Average'.

5.8 Given that the propose development area offers GCN with few/no GCN shelter opportunities and foraging and dispersal habitat, categorised by CES, as 'Average', and the availability of extensive GCN terrestrial shelter, hibernation and foraging habitat adjacent Ponds 2, 3 & 4 (categorised as 'Excellent') it has been concluded that GCN are reasonably unlikely to be present within the area to be directly impacted by the proposed development.

5.9 Based on the available historic GCN survey data and the 2017 CES appraisal findings, it was considered reasonable to conclude that a Small to Medium GCN meta-population size class was likely to be associated with Ponds 2, 3, 4, 5, 6 & 7 and that the survey data available was sufficient to allow the impacts of the proposed development to be confidently predicted.

6.0 PREDICTED DEVELOPMENT EFFECT & SCALE OF IMPACT

6.1 The predicted development effect and scale of impact has been assessed with reference to the EN GCN MG (2001) and current Natural England guidance.

6.2 No GCN breeding sites or other aquatic habitat will be lost or damaged as a consequence of the proposed development.

6.3 The proposed development will not increase the historic and existing level of habitat fragmentation at the site level and will not sever any GCN dispersal opportunities to or from their breeding and/or shelter sites.

6.4 The proposed development will not increase (from current and historic levels) the risk of post-development human interference impacts on the Small to Medium GCN meta-population considered likely to be associated with Ponds

2, 3, 4, 5, 6 & 7 and/or the aquatic and terrestrial habitats associated with these ponds and/or other water bodies in the local area.

6.5 It is considered that the proposed development will result in some; partial destruction, temporary disturbance and/or temporary destruction followed by reinstatement and modified management of features classified, by the EN GCN MG (2001) as immediate, intermediate and distant terrestrial habitat. Consequently, the predicted scale of negative impact on GCN (in the absence of any mitigation measures) can be reliably categorised as 'Low'.

6.6 The predicted development effect and impacts are detailed/highlighted (blue) in Table 3 below (adapted from the EN GCN MG).

Table 3: Summarising the scale of main impacts on GCN at the site level

Habitat Feature	Development Effect	Scale of Impact		
		Low	Medium	High
Confirmed GCN breeding pond/water body	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction; modification		✓	
	Temporary disturbance	✓		
	Post-development interference			✓
Other pond or water body	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction; modification	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
Immediate Terrestrial Habitat (less than 50 metres from a GCN/breeding pond or other water body potentially used by the species)	Destruction			✓
	Isolation caused by fragmentation			✓
	Partial destruction		✓	
	Modified management, resurfacing etc.		✓	
	Temporary disturbance	✓		
	Post-development interference		✓	
	Temporary destruction & reinstatement	✓		
Intermediate Terrestrial Habitat: (at a distance of 50 metres up to 250 metres from a GCN/breeding pond or other water body potentially used by the species)	Destruction		✓	
	Isolation caused by fragmentation		✓	
	Partial destruction	✓		
	Modified management, resurfacing, etc.	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction & reinstatement	✓		
Distant Terrestrial Habitat (more than 250 metres from a GCN/breeding pond or other water body potentially used by the species)	Destruction	✓		
	Isolation caused by fragmentation	✓		
	Partial destruction	✓		
	Modified management, resurfacing etc.	✓		
	Temporary disturbance	✓		
	Post-development interference	✓		
	Temporary destruction & reinstatement	✓		

6.7 Based on the appraisal findings it has been concluded that GCN are not, in any way, reliant on the habitats within the proposed development site. Consequently, the commencement of development at the site is considered highly unlikely to result in a breach of current wildlife legislation relating to the species and will not have a significant negative impact on the conservation status of the Small to Medium GCN meta-population considered likely to be associated with Ponds 2, 3, 4, 5, 6 & 7.

6.8 However, there remains a possibility (albeit slight) that the unmitigated commencement of development at the site could potentially adversely impact on individual GCN in the unlikely event that they were to inadvertently stray into the working area following the commencement of development works and take cover under/within temporary shelter habitat incidentally created as a consequence of the works, i.e. disturbed ground, excavations, spoil mounds and/or stored materials.

6.9 Following careful consideration of the appraisal findings and given the relatively limited scale of the proposed development, the predicted low development impacts, the legal protection afforded to the species and current guidance issued by Natural England in respect of low impact developments, it was concluded appropriate to recommend the implementation of non-licensed GCN Reasonable Avoidance Measures and habitat enhancement in respect of the proposed development.

6.10 It has been concluded that undertaking additional GCN aquatic survey effort in respect of the proposed development would not be appropriate, proportionate or necessary, and would not alter the predicted development effect and 'low' scale of impact or result in any material changes to the recommended implementation of non-licensed GCN Reasonable Avoidance Measures and habitat enhancement.

7.0 RECOMMENDED REASONABLE AVOIDENCE MEASURES AND HABITAT ENHANCEMENT

7.1 CES have concluded that the Reasonable Avoidance Measures (RAM) and habitat enhancement detailed below are in accordance with current Natural England guidance and that their successful implementation will effectively minimise the risk of breaching current legislation relating to GCN and will ensure that the favourable conservation status of the Small to Medium GCN meta-population considered likely to be associated with Ponds 2, 3, 4, 5, 6 & 7 is maintained within their natural range.

7.2 Current Natural England GCN guidance states:

"In recent years there has been a trend towards increasingly precautionary licence applications, resulting from a risk-averse approach to mitigation. Whilst considering potential risks to great crested newts is laudable, many recent mitigation schemes were designed for developments that actually had very little or no effect on the newt population. In part this is because it can be difficult to assess whether newts will be affected by certain activities, especially when they take place at some distance from breeding ponds. Newts tend to be present at increasingly low density the further one looks from ponds, and the task of detecting and capturing them becomes more problematic. Further from ponds, there is a corresponding reduction in the scale of impact on populations. Given that great crested newts can disperse over 1km from breeding ponds, the potential for offences may seem vast, yet the probability of an offence outside the core breeding and resting area is often rather small, and even if an offence takes place, the effect on the population may be negligible'.

'Natural England is concerned about the trend for increasingly risk-averse mitigation for several reasons. Primarily, there is no legal need, and little benefit to great crested newt conservation, in undertaking mitigation where there are no offences through development. Even where there technically is an offence, such as the destruction of a small, distant area of resting place habitat, or even killing low numbers of newts, it is arguable that impacts beyond the core area often have little or no tangible impact on the viability of populations. Mitigation in such circumstances is of questionable value in conservation terms. There are, however, substantial costs: developers delay projects and spend large sums on mitigation. Sometimes the mitigation project itself has environmental costs, especially when it entails substantial lengths of newt fencing. In some cases long newt fences are employed with no justification.

Natural England wishes to see newt fencing used more appropriately, i.e. only where there is a reasonable risk of capturing, containing and/or excluding newts'.

'Natural England recognises that the two key factors leading consultants to adopt this risk-averse approach are: (a) uncertainty over the presence of newts and whether there will be an offence in areas distant from ponds; (b) undertaking mitigation under licence "just in case", so that there is no perceived risk of litigation for their client. Natural England wishes to see mitigation planning shift away from such a highly risk-averse starting point. The domestic legislation protecting great crested newts arises largely from the Habitats Directive, which has a central aim to restore scheduled species to a favourable conservation status. A more proportionate approach to mitigation, addressing tangible impacts on populations whilst giving lower priority to negligible effects, is consistent with the aims of the Directive. It remains the responsibility of the developer - normally acting through their ecological consultant - to decide whether to apply. Early consideration of options including the implementation of reasonable avoidance measures can often result in no licence being required".

<u>With due regard for the above guidance, the following Reasonable Avoidance Measures are proposed to be implemented:</u>

1. Prior to commencing development at the site a suitably experienced and GCN licensed consultant ecologist should be appointed by the developer to ensure that the RAM are successfully implemented. In respect of the proposed development Mr James Grundy (ACIEEM) Principal Ecologist at CES has been retained to act as the developers appointed ecologist.

2. The RAM will be implemented as deemed appropriate by the appointed ecologist. A copy of this report and supporting materials including GCN/amphibian identification sheets and 'on call' ecologist contact details should be kept on-site and available for inspection during development related works at the site.

3. Prior to any development related works commencing at the site the developer/contractors should undergo a site induction/tool box talk where the implications arising from the potential presence of GCN/amphibians within the local area and the need to implement the RAM detailed in this report should be fully explained by the appointed ecologist.

4. Prior to any vegetation clearance and/or ground disturbance works commencing at the site, the extent of works should be agreed by the appointed ecologist and the developer/contractors.

5. Temporary Amphibian Fencing (TAF) will be used at the development site in order to discourage GCN/amphibians from entering the main working area and taking shelter within open excavations, disturbed ground, spoil mounds created as a consequence of the development works. It is not deemed appropriate or proportionate to install TAF along the route of the new site access track.

6. In accordance with current Natural England and best practice guidance, the use of TAF (upright and/or one-way) at the development site will be at the discretion of the appointed ecologist and for a limited period until the works are complete.

7. TAF should be used as a short term measure only if it is considered likely to reduce the risk of injury to GCN/amphibians and where its use would have no significant impact on their ability to migrate/disperse and reach their breeding/shelter sites. The use of one-way TAF will allow amphibians and/or other wildlife, i.e. small mammals to safely vacate the site into the wider area and will prevent them from re-entering the working area during development works.

8. TAF installation, inspections, maintenance and removal should be carried out by the appointed ecologist or their accredited agent in accordance with current Natural England and best practice guidance.

9. In respect of the proposed development, the short-term installation of TAF (upright and/or one-way) at the development site would, in the view of CES, not result in substantial interference to the dispersal routes of GCN/amphibians and would be unlikely to result in a breach of current legislation relating to GCN.

10. The TAF should be inspected on a regular basis and maintained in good order. A detailed record should be kept of the TAF installation date, rationale for its use, the dates of the inspection visits and any repairs

11. Terrestrial habitat protection measures, including the use of exclusion zones, should be implemented as deemed appropriate. The appointed ecologist and the developer/contractors should identify, agree and appropriately secure any required terrestrial habitat exclusion zones prior to the commencement of development works at the site.

12. The appointed ecologist and the developer/contractors should ensure that no areas of aquatic or terrestrial habitat (woodland) that is to be retained adjacent/neighbouring the development site are inadvertently lost or damaged as a consequence of the development works.

13. The development site, together with any on-site storage/lay down areas, should be kept clear of debris and, where practicable; stored materials should be kept off the ground on stillages or pallets so as to prevent GCN/amphibians from seeking shelter or protection under/within them.

14. Where materials need to be delivered to the development site for immediate use and/or temporary storage, directly on the ground, care should be taken not

to cause unnecessary or inadvertent damage or disturbance to neighbouring terrestrial habitat.

15. Any skips or bins, if used, should ideally be stored on baulks of timber to keep them off the ground so as to prevent GCN/amphibians from seeking shelter under them.

16. In the event that spoil needs to be removed from the development site, it should be taken off-site at the earliest opportunity for appropriate disposal.

17. The appointed ecologist should advise the developer/contractor to consider potential bio-security issues relating to the import and removal of material at the development site and the need to undertake a bio-security risk assessment and/or implement measures to prevent the inadvertent spread of non-native species, disease and biological pathogens.

18. Should any excavation/s be left open overnight for any reason, the excavation/s should be searched and checked for sheltering GCN/amphibians. The search should be carried out by the appointed ecologist or their accredited agent before works re-commence.

19. All open excavations should ideally incorporate soil 'ramps' at either end to allow GCN/amphibians and small mammals falling into them to escape.

20. Wherever practicable, excavations should be in-filled and made good to ground level at the earliest opportunity, so as to remove any hazard to GCN/amphibians.

21. Should spoil/materials be left on the ground overnight they may require searching for sheltering GCN/amphibians by the appointed ecologist or their accredited agent before they are moved.

22. Should amphibians (other than GCN) be found terrestrially at the development site they will be captured by hand and may be held captive for a short period in secure, clean container/s lined with damp moss prior to their release into suitable cover adjacent the site boundaries, as deemed appropriate by the appointed ecologist.

23. If more than one amphibian species is found (other than GCN) they should be kept in separate secure, clean container/s lined with damp moss to avoid injury and/or predation. Amphibian capture should be carried out by the appointed ecologist or their accredited agent.

24. In the event that ecological supervision is not present on-site when an amphibian is found terrestrially the developer/contractor should place the amphibian/s into the secure, clean container/s lined with damp moss provided by the appointed ecologist and to be kept on-site for such an eventuality. The appointed ecologist or their accredited agent should be contacted immediately

(using the 'on call' service, if appropriate) for advice on release and to ensure that the amphibian species is correctly identified/recorded.

25. The timing of the development works and implementation of RAM will, where practicable to do so, encompass daylight hours and the period when the majority of GCN/amphibians are considered likely to be at their breeding sites and/or not active above ground. Consequently, the risk of GCN/amphibians being adversely impacted by the works will be minimised.

26. The implementation of the RAM detailed in this report should be undertaken with due regard and consideration for the potential presence of other species at or neighbouring the development site.

27. The mitigation strategy proposed does not allow GCN to be captured or removed from the site and released at another location. In the unlikely event that GCN are found within the development site work must stop and the appointed ecologist and/or Natural England immediately contacted for advice on how to proceed.

7.3 Natural England GCN guidance relating to the licensed and non-licensed use of TAF states:

"*Natural England cannot tell you whether to erect TAF, whether to apply for a licence, 'approve' the installation of TAF without a licence or whether any offences would be committed by doing so. It is for the person in charge of the scheme, normally through their ecological consultant, to decide on these matters'. Natural England indicates that 'in only very limited circumstances, is it feasible that installing TAF would probably not result in an offence, and therefore no licence would be required. This could include cases where both the following criteria are met:*

- *There is no habitat suitable for shelter or protection in the area subject to potentially harmful activities.*
- *The layout of the TAF would not result in substantial interference to the dispersal routes of great crested newts.*

The chance of an offence being committed increases close to breeding ponds and suitable habitats that can be used as hibernation or daytime refuge sites. For example, no offence is likely if the area to be fenced was a small tarmac car park, supporting no resting place habitat and not situated in between a breeding pond and key terrestrial habitat patches".

7.4 In respect of the proposed development terrestrial habitats to be directly impacted by the proposed development works were assessed by CES to offer

GCN with few/no shelter opportunities and foraging or dispersal habitat categorised as predominantly 'Average'.

7.5 The development site is not situated between a GCN breeding pond and key terrestrial habitat patches.

7.6 In this instance, the short term installation of TAF at the development site would, in the view of CES, not result in the loss damage of habitat suitable for GCN shelter and protection and would not result in any substantial interference to the dispersal routes of great crested newts and therefore meets the very limited circumstances criteria as defined by Natural England. Refer to Appendix H: Indicative TAF Layout Plan.

7.7 The implementation of specific habitat enhancement and monitoring specifically for GCN is considered appropriate in relation to the proposed development. The proposed measures, features and monitoring are detailed below. Refer to Appendix I: Habitat Enhancement Plan.

7.8 Proposed Habitat Enhancement and Monitoring:

a) It is proposed that the area of woodland extending to approximately 1.6Ha (containing Ponds 3 & 4) located to the north of the proposed development site and currently under the direct ownership/control of the developer will be brought into conservation management for GCN in order to enhance and secure the long term future of existing GCN aquatic and terrestrial habitat neighbouring the site, post development.

b) Pond 3 (0.14Ha) and Pond 4 (0.05Ha) located within the woodland located to the north of the development site boundary are to be retained and will be subject to aquatic enhancement works. The works proposed will include the active management of trees/scrub that currently excessively shade the margins of both ponds and the removal of fallen trees and timber from the water.

c) Ponds 3 and 4 will also be subject to partial de-silting works (where safe/low impact access to the pond bank is possible). Material arising from these works will i.e. leaf litter/silt will be carefully feathered into suitable adjacent terrestrial habitat under ecological supervision to prevent any inadvertent habitat damage.

d) All pond works would be carried out during the winter months (November to January).

e) It is anticipated that the pond works will take approximately 3 days to complete.

f) The aim of the aquatic habitat enhancement works at Ponds 4 & 5 (in accordance with the EN GCN MG) will be to create ponds with:

- Limited shading on their southern banks.
- Substantial (>50%) aquatic/marginal plant cover;
- Areas of open water;
- Varied water depths (<4 metres);
- Good populations of aquatic invertebrates and amphibians;
- Absence of non-native invasive plant species,
- Absence of fish;
- Absence or low density of waterfowl.

g) The aquatic habitat enhancement works at Ponds 3 & 4 will be implemented using RAM. The works will be carried out under the supervision of the appointed ecologist or their accredited agent in accordance with current best practice guidance from Natural England relating to aquatic habitat works at GCN breeding sites.

h) The implementation of specific RAM will be at the discretion of the appointed ecologist. The presence on-site of the appointed ecologist or their accredited agent for the duration of the aquatic enhancement works will ensure that the protection measures are successfully implemented and that GCN, other species and retained habitats are protected from harm.

i) When the aquatic enhancement works are complete Pond 3 & 4 should achieve a HSI score >0.8 indicating 'Excellent' suitability for GCN.

j) Future habitat enhancement / management works within the woodland and at Ponds 3 & 4 at the site will be informed by current best practice relating to the long-term management of GCN/amphibian habitats, as detailed in the EN GCN MG and The Great Crested Newt Conservation Handbook.

k) Post-development monitoring of Ponds 3 & 4 will be undertaken for a period of two (non-consecutive) years following the completion of development works at the site.

l) GCN presence/absence monitoring will involve up to 4 site visits per year (provisionally scheduled for years 2019 and 2021) or eDNA testing by suitably experienced and GCN licensed ecologists to assess the status of aquatic and terrestrial habitats and the status of GCN at Ponds 3 & 4 post-development.

m) The findings of the monitoring visit/s will be used to inform any required future habitat management works and will allow the success of the RAM and habitat enhancement works to be appropriately assessed. The findings of the GCN presence/absence monitoring visit/s should be supplied to the developer/landowner and local records centre by the appointed ecologist in the form of a short report.

7.9 The developer will be responsible for adequately resourcing and ensuring the successful implementation of the GCN RAM and habitat enhancement and post development monitoring detailed above. Appropriate resources will be made available by the developer/landowner to ensure that any required future habitat management works are successfully delivered.

8.0 CONCLUSIONS

8.1 Following careful consideration of the appraisal findings and given the relatively limited scale of the proposed development, the predicted low development impacts, the legal protection afforded to the species and current guidance issued by Natural England in respect of low impact developments, it was concluded appropriate to recommend the implementation of non-licensed GCN Reasonable Avoidance Measures and habitat enhancement in respect of the proposed development.

8.2 It has been concluded that undertaking additional GCN aquatic survey effort in respect of the proposed development would not be appropriate, proportionate or necessary and would not alter the predicted development effect and 'Low' scale of impact or result in any material changes to the recommended implementation of non-licensed GCN Reasonable Avoidance Measures and habitat enhancement.

8.3 CES have concluded that the successful implementation of the GCN Reasonable Avoidance Measures and habitat enhancement detailed in this appraisal report would enable the proposed development to proceed lawfully and will ensure that the favourable conservation status of the Small to Medium GCN meta-population considered likely to be associated with Ponds 2, 3, 4, 5, 6 & 7 is maintained within its natural range.

8.4 The status of GCN at the site level has been reliably established, and the predicted development effect and scale of impact have been assessed and appropriate mitigation and habitat enhancement measures have been formulated. It should therefore be possible for the Local Planning Authority to make an informed decision as to whether it is possible to discharge their responsibilities under current planning guidance, in relation to GCN in respect of the proposed development at Land West of Moor Farm, Cliffe Road, North Newbald, East Riding of Yorkshire (Planning Application No. DC/16/01276/OUT/EASTSE).

9.0 REFERENCES

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

Grundy J. (2007) Newts in Your Pond and Garden.

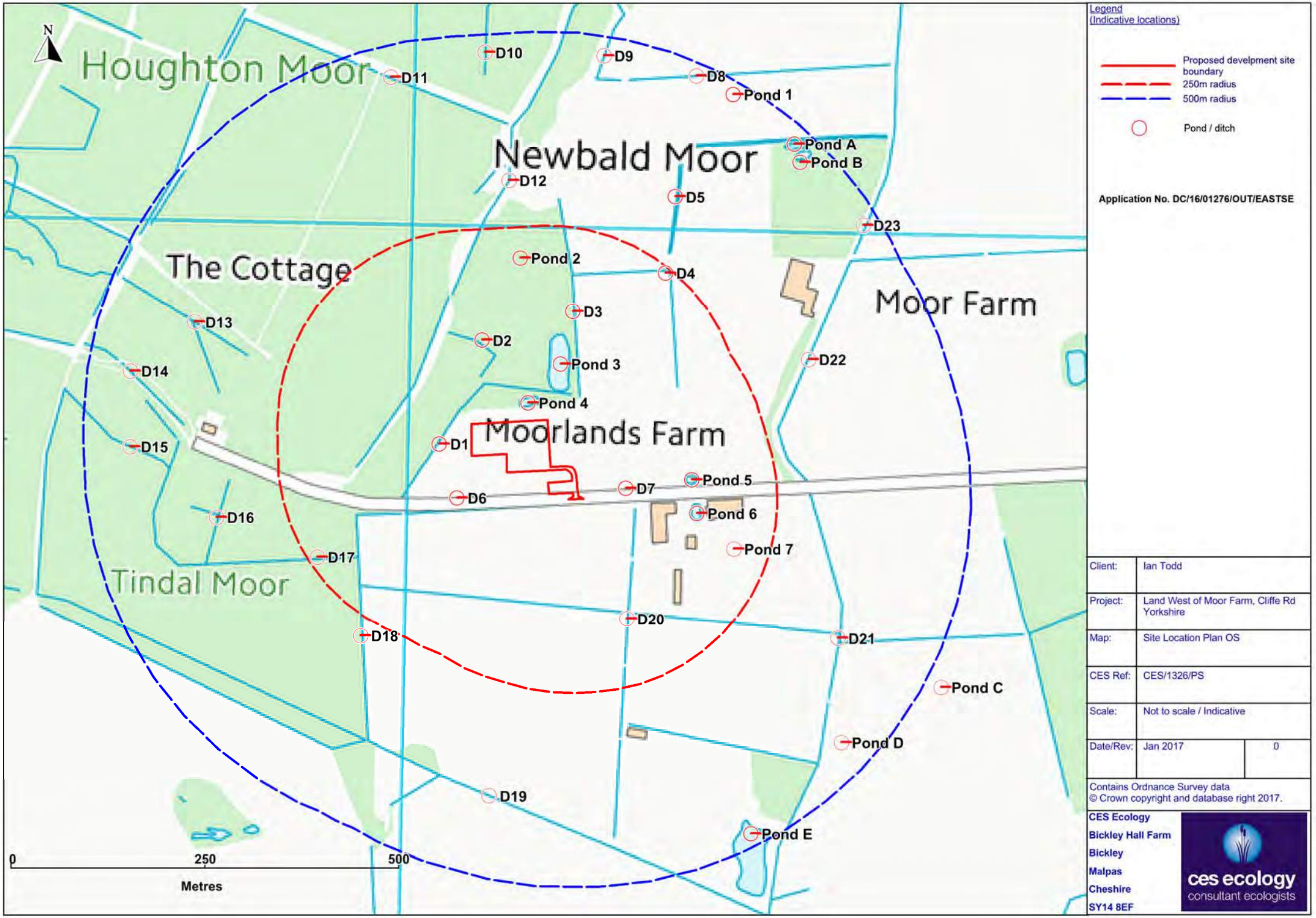
Natural England Guidance: Template for Method Statement to support application for licence under Regulation 53(2)(e) in respect of great crested newts Triturus cristatus. Form WML-A14-2 (Version April 13).

Oldham et al. (2000) Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10(4), 143-155.

Proposed new policies for European Protected Species licensing
Analysis of responses to the public consultation held between 25 February and 7 April 2016 (December 2016)

Appendices

Appendix A (i): Site Location Plan (OS)



Legend
(Indicative locations)

- Proposed develpment site boundary
- 250m radius
- 500m radius
- Pond / ditch

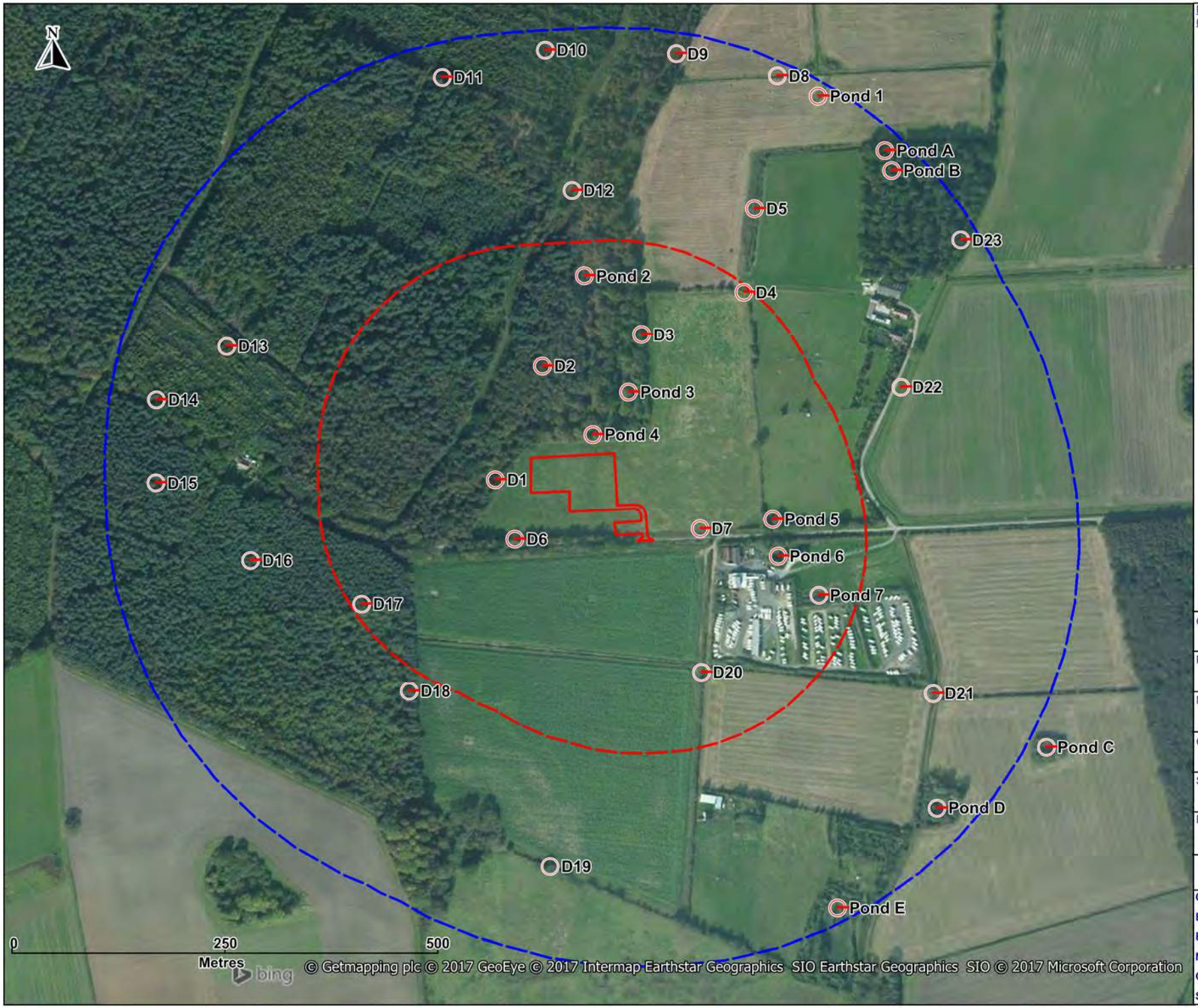
Application No. DC/16/01276/OUT/EASTSE

Client:	Ian Todd
Project:	Land West of Moor Farm, Cliffe Rd Yorkshire
Map:	Site Location Plan OS
CES Ref:	CES/1326/PS
Scale:	Not to scale / Indicative
Date/Rev:	Jan 2017 — 0

CES Ecology
Bickley Hall Farm
Bickley
Malpas
Cheshire
SY14 8EF

ces ecology
consultant ecologists

Appendix A (ii): Site Location Plan (Aerial)



Legend
(Indicative locations)

- Proposed develpment site boundary
- 250m radius
- 500m radius
- Pond / ditch

Application No. DC/16/01276/OUT/EASTSE

Client:	Ian Todd
Project:	Land West of Moor Farm, Cliffe Rd Yorkshire
Map:	Site Location Plan AERIAL
CES Ref:	CES/1326/PS
Scale:	Not to scale / Indicative
Date/Rev:	Jan 2017 — 0

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Malpas
Cheshire
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Appendix B: Principal Ecologist's Experience

James Grundy (ACIEEM) is the Principal Ecologist at CES Ecology and in 2016 he was among the first consultant ecologists to achieve Natural England GCN Low Impact Class Licence Registered Consultant status (Ref No: GCN1RC001). He leads a dedicated team of motivated, professional and highly experienced ecologists and field team workers, with the focus on the delivery of development led great crested newt (GCN) mitigation and protected species projects across Northern England and North Wales.

James has been involved with a large number of GCN and amphibian related projects in various capacities and roles since 1980. He is fully conversant with current wildlife legislation relating to GCN and other protected species and the responsibilities of Local Planning Authorities in respect of protected species and biodiversity. As a professional ecologist and Associate Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) he adheres to their Code of Professional Conduct. He regularly employs the methodologies detailed in the English Nature Great Crested Newt Mitigation Guidelines, 2001 (EN GCN MG).

He has extensive experience of the Local Authority planning process and the Natural England GCN/protected species licensing system and has developed excellent personal working relationships with Natural England protected species licensing advisors. He has acted as expert witness (Appellant) and produced 'proof of evidence' in respect of GCN/protected species at several planning appeals.

He is currently the named Appointed Ecologist on over 20 GCN Natural England mitigation licensed development projects including several large scale phased residential and commercial developments including the Chester Zoo 'Islands' Project.

Where deemed appropriate, and in accordance with current GCN/protected species guidelines and standing advice, he takes a proportionate approach to the implementation of GCN/protected species mitigation measures. He has formulated and successfully delivered to date over 100 non-licensed (reasonable avoidance measures) mitigation and monitoring strategies in respect of GCN/protected species development related projects.

Other GCN related experience:

eDNA sampling:

- Trained (2016) in the use of eDNA sampling techniques and familiar with sampling protocol and the DEFRA published (2014) eDNA survey Technical Advice Note WC1067: Appendix 5 technical advice note for field & laboratory sampling of great crested newt (Triturus cristatus) environmental DNA.

Publications:

- Author: Newts in your pond and garden (2007);
- Author: Guide to the Newt Year (2008).

Accredited contributor:

- Britain's Reptiles and Amphibians (2009);
- The Crested Newt (2011);
- Amphibian and Reptile Conservation - GCN guidance leaflet, presenting land managers in England and Scotland with a range of options to benefit GCN (2011).

Media:

- Appearances on national and regional television including The Planners (2012) 'Tonight with Trevor McDonald' (2010) relating to GCN legislation, development and mitigation;
- Several interviews on local radio relating to GCN;
- Numerous GCN articles published in local, regional papers and magazines.

Professional:

- Contributor (2014/16) of resources including preparation/delivery of a number of annual GCN and amphibian training courses to volunteer/professional conservation workers in England and Wales.
- Consultee Proposed new policies for European Protected Species licensing.

Appendix C: GCN & Protected Species Legislation

Species/Habitat	Protected by:	UK BAP
Common frog	Provision 5 of Section 9 of the *Wildlife and Countryside Act*, 1981 (as amended)	No
Common toad	Provision 5 of Section 9 of the *Wildlife and Countryside Act*, 1981 (as amended) Section 41 of the *Natural Environment and Rural Communities (NERC) Act,* 2006	Yes
Great crested newt	Regulation 41 of *The Conservation of Habitats and Species (Amendment) Regulations*, 2012 Section 9 of the *Wildlife and Countryside Act,* 1981 (as amended) Section 41 of the *Natural Environment and Rural Communities (NERC) Act,* 2006	Yes
Smooth newt	Provision 5 of Section 9 of the *Wildlife and Countryside Act*, 1981 (as amended)	No

The *Conservation of Habitats and Species Regulations,* 2010

European protected species are listed on Schedule 2 of the *Conservation of Habitats and Species Regulations* 2010. Those species listed on Schedule 2 are protected under Regulation 41, which refers to the protection of wild animals of a European Protected Species. The following is a summary of the offences listed under Regulation 41, however, the *Conservation Regulations* should always be referred to for the exact and current wording:

Under Regulation 41 of the *Conservation of Habitats and Species Regulations,* 2010 it is an offence to –

- deliberately capture or kill a wild animal of a European protected species;
- deliberately disturb wild animals, in particular any disturbance which is likely:
    - to impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or
    - to impair their ability, in the case of animals of a hibernating or migratory species, to hibernate or migrate;
    - to affect significantly the local distribution or abundance of the species to which they belong
- deliberately take or destroy the eggs of such an animal; or
- damage or destroy a breeding site or resting place of such an animal.
- keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a European protected species, or any part of, or anything derived from, such an animal.

***Wildlife and Countryside Act,* 1981 (as amended)**

British protected species of animal are listed on Schedule 5 of the *Wildlife and Countryside Act*, 1981 (as amended). Those species listed on Schedule 5 are protected under Part 1, Section 9, which refers to the protection of certain wild animals. The following is a summary of the

offences listed under Section 9; however the Act should always be referred to for the exact and current wording:

Under Section 9 of the *Wildlife and Countryside Act*, 1981 (as amended) if any person –

- intentionally kills, injures or takes any wild animal included in Schedule 5;
- has in his possession or control any live or dead wild animal included in Schedule 5 or any part of, or anything derived from such an animal;
- intentionally or recklessly damages or destroys, or obstructs access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection;
- disturbs any such animal included in Schedule 5 while it is occupying a structure or place which it uses for that purpose;
- sells, offers or exposes for sale, or has in his possession or transports for the purpose of sale, any live or dead wild animal included in Schedule 5, or any part of, or anything derived from, such an animal; or,
- publishes or causes to be published any advertisement likely to be understood as conveying that he buys or sells, or intends to buy or sell, any of those things, he shall be guilty of an offence.

This legislation applies to all life stages of GCN. Heavy fines (up to £5,000 per incident) can be imposed for **each** offence, and a prison sentence of up to 6 months for each offence can be given to any person found guilty of an offence. In certain circumstances, any machine, tool or implement involved in an illegal act can also be seized.

Natural England (NE) issue licences for the disturbance of European Protected Species including GCN, certain criteria must be met before a licence can be issued to enable otherwise prohibited works to proceed. Such criteria may be subject to change without notice. For further information please visit www.naturalengland.org.uk

The *Natural Environment and Rural Communities (NERC) Act,* 2006 (as amended)

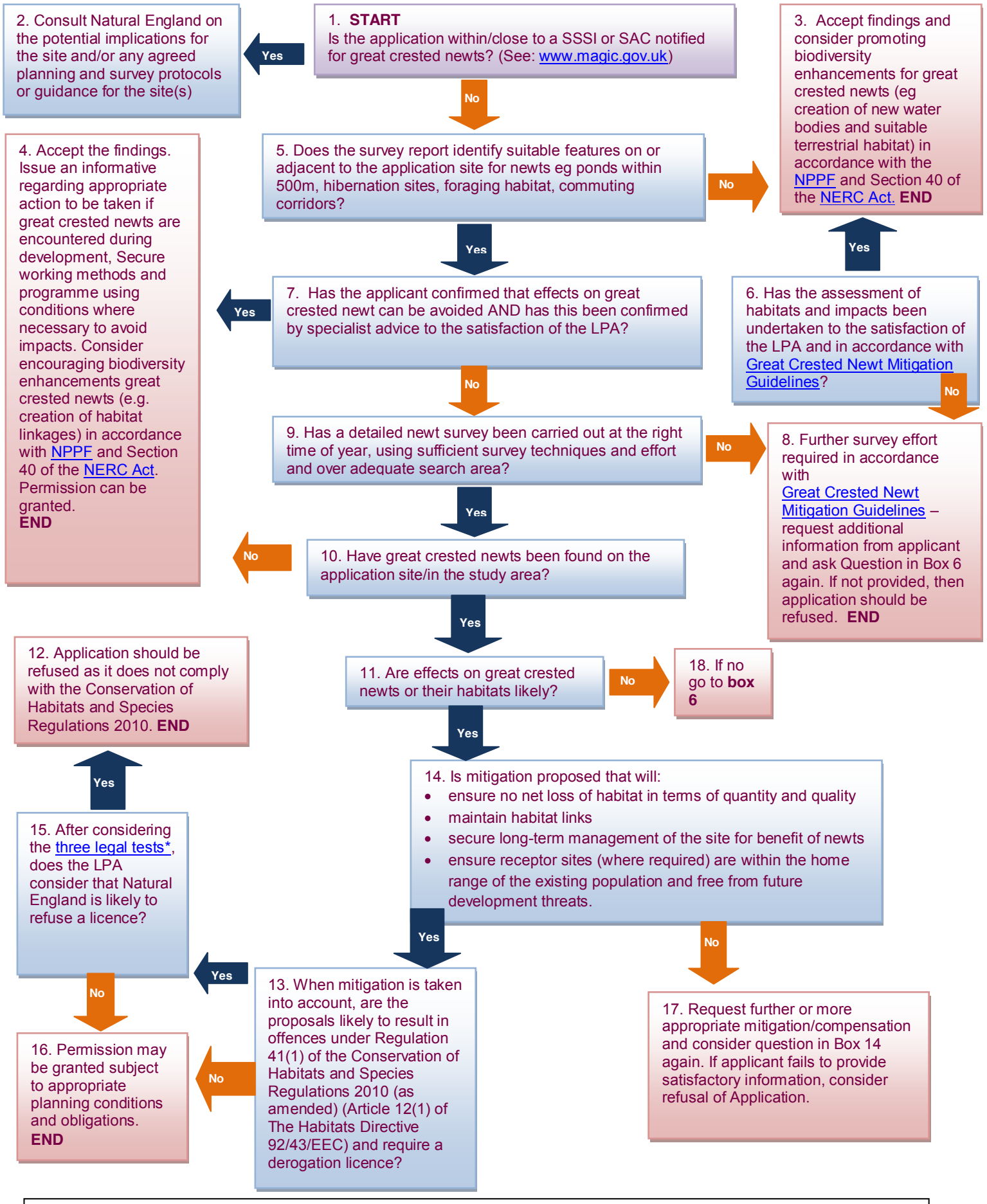
The following is a summary of the *Natural Environment and Rural Communities (NERC),* Act, 2006 (as amended), the *NERC Act* itself should be referred to for the exact and current wording:

- Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity;
- In complying with the above, a Minister of the Crown, government department or the National Assembly for Wales must in particular have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992;
- Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat.

Appendix D: Natural England GCN Standing Advice Flowchart

Guidance on how to assess a great crested newt survey and mitigation strategy

(The numbers in each box are to assist in referencing a decision trail rather than being a numerical sequence through the flow chart)



* **See also:** https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/82706/habitats-simplify-guide-draft-20121211.pdf

Appendix E: GCN Appraisal/Survey Methods

GCN Appraisal & Survey

The EN GCN MG and Natural England advise that, if access permission can be obtained, a GCN aquatic survey should consist of four or six visits, carried out on non-consecutive nights, in appropriate weather conditions, at the appropriate time of year (mid-March to mid-June) and should ideally include all of the water bodies identified as relevant within the survey area. At least half of the visits should be undertaken between mid-April and mid-May.

Natural England advises that a GCN 'Habitat Suitability Index' score is calculated for all water bodies subject to a GCN survey (refer to Appendix C: GCN Survey Methods; Oldham *et al*, 2000).

The 'traditional' GCN aquatic survey methods include egg search, torch survey, bottle trapping and hand netting. The EN GCN MG and Natural England advise that, where practicable to do so, a combination of three of the four traditional survey methods should be employed at each water body.

The EN GCN MG indicate that four non-consecutive visits, using traditional survey methods and resulting in consistent negative findings, undertaken in accordance with current GCN survey guidance represents sufficient effort to reliably establish GCN 'likely absence' at a water body.

The EN GCN MG advise that a GCN population size class assessment aquatic survey (generally required to inform a GCN mitigation licence application) should comprise six non-consecutive visits, using traditional survey methods, at the appropriate time of year (mid-March to mid-June) to all the water bodies within the survey area where GCN presence has been established. At least three of the visits should be undertaken between mid-April and mid-May.

The GCN population size class is derived from the peak count. This is the combined sum of the highest number of adult GCN observed or captured during the same visit. GCN population size class based on the EN GCN MG categorisations are shown below.

- Small population size class: 1 to 10 individual adult GCN
- Medium population size class: 11 to 100 individual adult GCN
- Large population size class: 100 plus individual adult GCN

GCN presence or 'likely absence' can also be reliably established at a water body between mid-April and the end of June using the Natural England approved eDNA analysis method; whereby samples of the surveyed water body are collected by a suitably trained ecologist and analysed by an approved agent for the presence of GCN DNA.

Aquatic GCN Appraisal/Survey Methods

Egg Search: All native newts lay their eggs singly on submerged leaves of water plants and other suitable submerged substrates. Careful examination of pond vegetation can therefore be used to establish the presence of newts in a pond during the breeding season. GCN eggs can be distinguished from those of smooth and palmate newts by their size and colour therefore enabling species-specific presence/absence to be determined. When GCN eggs have been identified (establishing that the pond is a breeding site) no further egg search effort should be undertaken at that pond, as additional disturbance could result in egg predation and/or reduce viability.

Torch Survey: Using 'Clulite' 1-million candlepower torches, this is a reliable method of establishing the presence/absence and counting the number of newts in ponds during the breeding season. Weather conditions can limit surveying, dry, still nights are required to

allow effective observation as can the condition of the pond, i.e. deep, weedy or turbid ponds may require other survey methods to be employed.

Bottle Trapping: This method is useful where water is turbid or where vegetation restricts torch searching. It can help establish presence or absence and give an idea of population size. Ideally, traps are set at 2 metre intervals around the shallow margins of the pond during the early evening and collected the following morning; this method allows accurate identification of species, sex and life stage to be recorded. Where areas of the pond are inaccessible due to steep sides, deep water/silt or overhanging trees, etc., the bottle traps can sometimes be set in random transects, utilising the same number of traps as for the 2 metre intervals whenever possible (e.g. 15 traps for a 30m circumference pond). Bottle trapping should not be used in areas where there are health and safety concerns i.e. steep banks and deep water/silt or where there is a risk of vandalism or disturbance from animals.

Netting: This method can be useful in confirming GCN presence within a pond; however it should not be regarded as particularly reliable because adult GCN and their larvae may evade capture, especially in deep, large or thickly vegetated ponds.

eDNA Testing: GCN presence or likely absence can be reliably established at a water body between mid-April and the end of June using the eDNA analysis method; whereby samples of the surveyed water body are collected by the appointed ecologist and analysed by an approved agent for the presence of GCN DNA. All GCN eDNA sampling surveys should be undertaken by suitably trained, experienced and licensed ecologists in strict accordance with sampling protocol and the DEFRA published eDNA survey Technical Advice Note WC1067: Appendix 5 technical advice note for field & laboratory sampling of great crested newt (Triturus cristatus) environmental DNA, 2014.

Habitat Suitability Index: As part of all GCN surveys, a 'Habitat Suitability Index' (HSI) score should be calculated for each pond surveyed. The HSI score is a measure of GCN habitat suitability and can be used to help determine the likelihood of GCN presence within a pond. The HSI score is determined by assessing 10 factors, i.e. the likely presence of fish, water quality, etc. The results obtained are converted to a number and a calculation performed to give a figure between 0 and 1. This number can then be used to categorise GCN pond habitat with 0 representing unsuitable and 1 optimal habitat. 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.

NB: Where access permission to inspect a water body cannot be obtained and/or it is not possible to undertake appraisal/survey effort at the appropriate time of year (mid-March to mid-June) likely GCN presence or absence and the population size class associated with a site can generally be reliably predicted, by an experienced GCN ecologist, using historic records and/or the local status of the species combined with an assessment of the availability and suitability of aquatic and terrestrial habitats at and neighbouring the site.

As ponds frequently differ in terms of vegetative cover, water depth and clarity it is not always physically possible to utilise three or more survey methods at each individual pond. Constraining factors such as steep sides, deep water/silt, the risk of bottle traps being disturbed or damaged by livestock or the public, or torch survey being restricted by turbid or weedy ponds, determine which methods can be reliably and safely used.

Terrestrial GCN Appraisal/Survey Methods

Terrestrial Refugia Hand Searches

Natural England recommends that terrestrial refugia searches for sheltering GCN/amphibians is only appropriate for distinct habitat features i.e. artificial refugia and/or 'natural' refugia that can be carefully lifted/dismantled by hand with minimal risk of harm to GCN/amphibians. Examples: include corrugated tin sheets, wooden boards/planks, plastic sheeting, fallen/old timbers, small rubble piles, topsoil mounds and areas of fractured hard-standing. Refugia searches should not be undertaken in winter when GCN/amphibians are inactive or in extremely hot periods in summer. Searches should only be carried out in suitable weather conditions as per the *Great crested newt mitigation guidelines*.

Terrestrial night torch searches

Natural England recommends that terrestrial torch searches for foraging and/or migrating GCN/amphibians should be carried out by highly experienced amphibian ecologist/s using high power torches (at least 1 Million candle power). The searches should be undertaken on relatively mild nights during rain or shortly after rain when GCN/amphibian prey species such as earthworms and slugs are active above ground. All searches should ideally start around 22.00 (even if dark earlier) and should last for approximately 3 hours (more on very large sites). The effort should involve repeat scanning of all areas to check for GCN/amphibians emerging from the ground with checks made at ground level along linear features such as fence lines and/or the exterior walls buildings (first and last checks). Walk slowly scanning torch in front; check refuges. Cease search if much leaf fall as this makes GCN/amphibians difficult to detect. Take great care to avoid stepping on GCN/amphibians.

Appendix F: Photographic Plates

Plate 1: View of the proposed development looking east

Plate 2: View towards the proposed development site (looking west)

Plate 3: View towards the proposed development site from the site access

Plate 4: Pond 2

Plate 5: Pond 3 within the area of woodland owned/controlled by the developer (GCN breeding site)

Plate 6: Pond 4 within the area of woodland owned/controlled by the developer

Plate 7: Pond 5 waterfowl and likely fish presence established

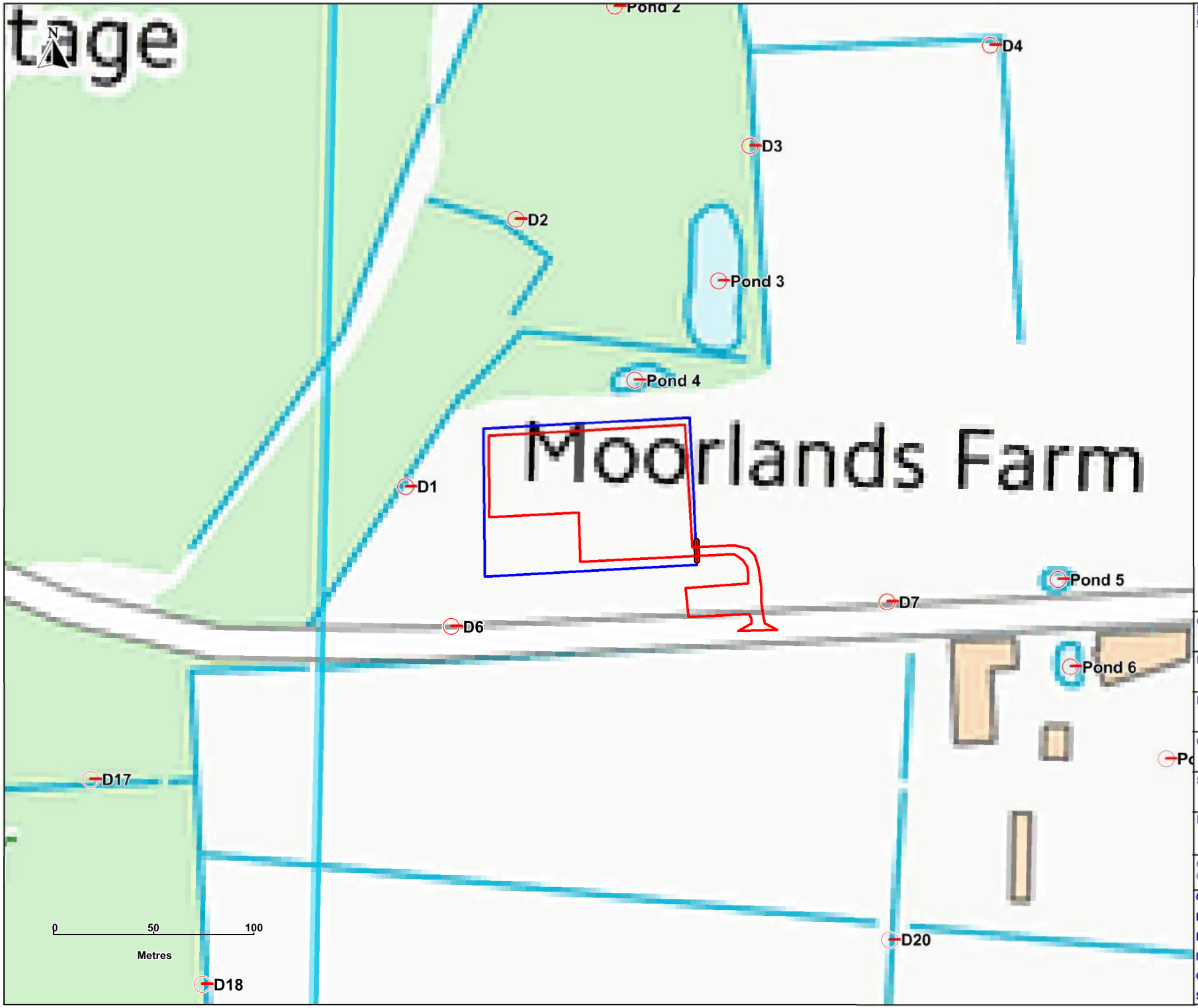
Plate 8: Pond 6 likely fish presence established

Plate 9: Pond 7

Appendix G: Terrestrial Habitat Suitability Index (THSI)

GCN Habitat Type	Example Habitats	Suitability for GCN
No shelter/hibernation sites No foraging habitat No habitat connectivity Complete barrier to GCN dispersal	Extensive areas of intact hard standing Compacted sports field Built environs Industrial/commercial sites	Very Poor
No shelter/hibernation sites Limited foraging habitat No/restricted habitat connectivity Significant restrictions/barriers to GCN dispersal	Compacted hard-standing Intensively managed farmland Closely mown amenity grassland School playing field Industrial/commercial sites	Poor
Limited availability of shelter sites No obvious hibernation sites Some foraging habitat Restricted habitat connectivity Restrictions/barriers to GCN dispersal	Managed arable farmland High density grazing Intensively managed grassland Areas of formal planting Industrial/commercial sites	Below average
Some shelter and hibernation sites Some foraging habitat Some habitat connectivity Some restrictions/barriers to GCN dispersal	Managed semi-improved grassland Grazed pasture Infrequently mown grassland Hedgerows narrow buffer zone Brownfield sites abandoned <5yrs Gardens	Average
Shelter and hibernation sites Varied foraging habitat Habitats linked/connected Few barriers to GCN dispersal	Unimproved grassland Unmanaged semi-improved grassland Mature hedgerows wide buffer zone Low density grazing Established gardens Brownfield site abandoned >5yrs	Above average
Range shelter & hibernation sites Varied and diverse foraging habitat Habitats connected Few/no restrictions/barriers to GCN dispersal	Rough/tussocky grassland Areas of scrub New woodland Organically managed farmland Railway embankments Mature gardens Allotments Mineral workings	Good
Widespread shelter and hibernation sites Extensive varied and diverse foraging habitat Habitat extensive and well connected No restrictions/barriers to GCN dispersal	Mature deciduous woodland Managed wildlife areas/reserves Old mineral workings	Excellent

Appendix H: Indicative TAF Layout



Legend
(Indicative locations)

Proposed development site boundary

Indicative temporary amphibian fence (TAF) layout

Amphibian resistant site access

Application No. DC/16/01276/OUT/EASTSE

Client:	Ian Todd	
Project:	Land West of Moor Farm, Cliffe Rd Yorkshire	
Map:	Indicative temporary amphibian fence (TAF) Layout	
CES Ref:	CES/1326/PS	
Scale:	Not to scale / Indicative	
Date/Rev:	Jan 2017	0

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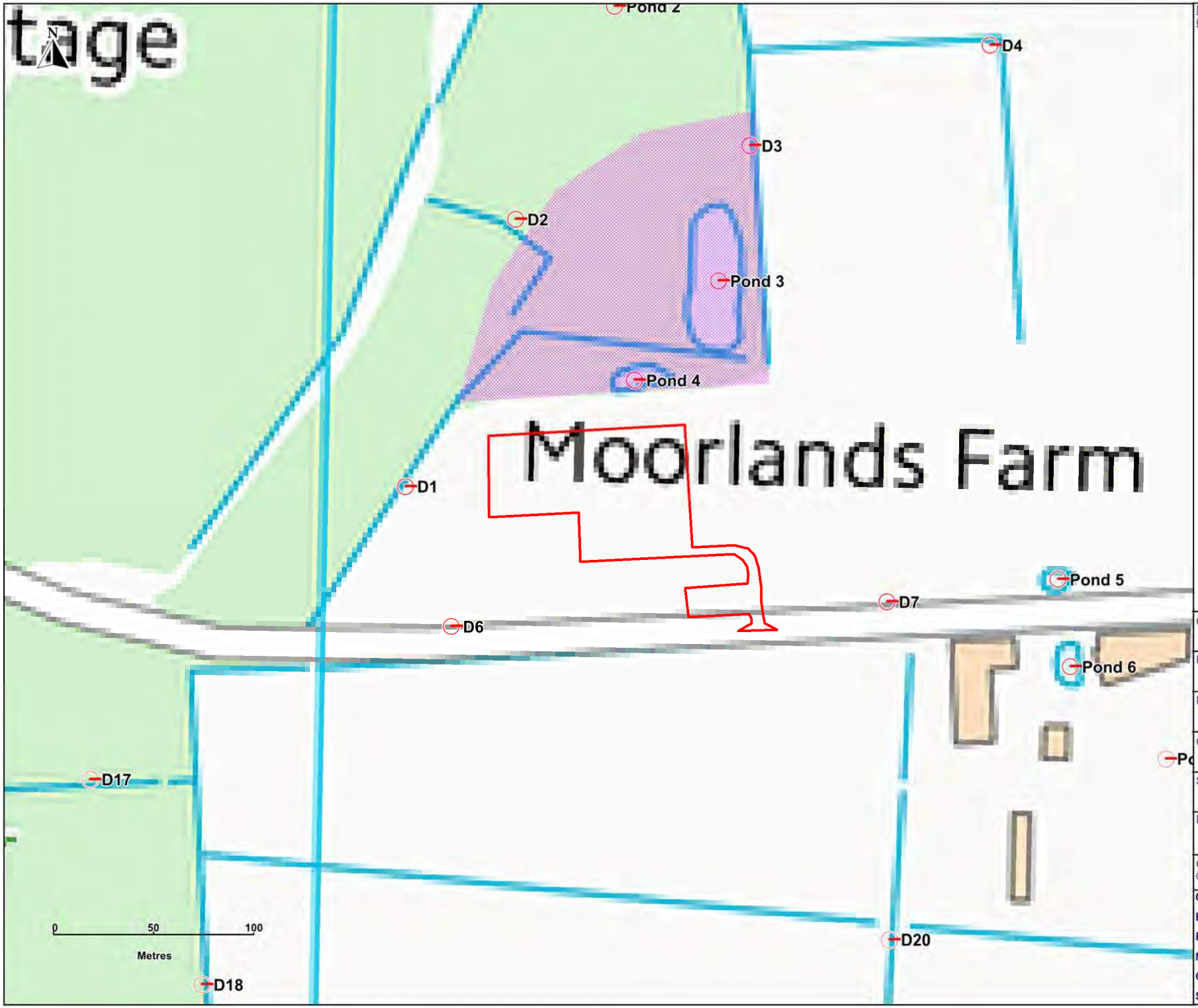
Appendix I: Habitat Enhancement Plan



Legend
(Indicative locations)

Proposed development site boundary

Pond /ditch

GCN habitat enhancement area (1.60ha)

Application No. DC/16/01276/OUT/EASTSE

Client:	Ian Todd
Project:	Land West of Moor Farm, Cliffe Rd Yorkshire
Map:	Habitat Enhancement Plan
CES Ref:	CES/1326/PS
Scale:	Not to scale / Indicative
Date/Rev:	Jan 2017 — 0

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