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Whinney Close Farm Demolition

GCN Risk Assessment

Prepared for Thomas Crompton Demolition Ltd

April 2023

	Staff Member	Position
Extended Phase I Habitat Survey	Rob Frith BSc (Hons) MRSB	Principal Ecologist
Report prepared by	Rob Frith BSc (Hons) MRSB	Principal Ecologist
Approved by:	Dena Frith	Senior Ecologist
Notes:	This report contains sensitive information concerning protected species and caution should be exercised when copying and distributing to third parties.	

Report Status	Authorised for Release	Date	Position
Final	Rob Frith	5 April 2023	Principal Ecologist

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EXECUTIVE SUMMARY

Thomas Crompton Demolition Ltd is seeking planning permission for the demolition of Whinney Close Farm at Cockley Hill Lane, Kirkheaton. After demolition a new residential dwelling will be constructed.

The site lies to the north of Laneside Quarry, which is also owned and managed by the client, and previously supported a large population of great crested newts. Under licence from Natural England the great crested newt population within the quarry were relocated into a series of new ponds created to the site of the quarry.

RDF Ecology were appointed to undertake an extended phase I habitat and protected species walkover survey of the site to identify any habitats of potential value to breeding, resting, feeding or commuting GCN and report on the findings and the need for any further survey or licensing

Assessment Summary

Survey Item	Conclusions
Habitats	The habitats within the site comprise areas of hard standing and buildings with some areas of amenity grassland and ornamental flower beds. These habitats were considered to be of very low potential value to GCN
Amphibians	The assessment concludes that it is unlikely that GCN would be encountered during the demolition of the buildings and that a Natural England Licence would not be required for the building demolition.
Recommendations	
Amphibians	It is proposed that the demolition works be completed in accordance with a Reasonable Avoidance Measures Method Statement and supervised by a suitably qualified ecologist. In the unlikely event that GCN are encountered during the demolition works all operations would stop and it is proposed that the site be registered under the GCN Low Impact Class Licence prior to the demolition commencing.

1. INTRODUCTION

1.1. Project Background

1.1.1. Thomas Crompton Demolition Ltd (the 'client') is seeking planning permission for the demolition of Whinney Close Farm at Cockly Hill Lane, Kirkheaton (hereafter referred to as 'the site') whose location and extent is shown in Figure 1.

1.1.2. After demolition new residential dwelling will be constructed.

1.2. Ecological Background

1.2.1. There have been no previous ecological surveys of the site with regard to great crested newts *(Triturus cristatus)*.

1.2.2. However, as part of the current Natural England (NE) licence (reference 2017-32729-EPS-MIT) for Laneside Quarry, extensive monitoring of the great crested newt (GCN) population impacted by the development at Laneside Quarry have been completed. These surveys have been reviewed in the preparation of this report.

1.3. Project Brief and Objectives

1.3.1. ***RDF*** Ecology has been appointed to undertake a desktop study, extended phase I habitat and protected species walkover survey and report on the findings.

1.3.2. The objectives of the commission were to:

- To complete a review of existing information regarding great crested newts within 500m of the site boundary;
- To undertake an extended phase 1 habitat and protected species walkover survey of the site to identify any habitats of potential value to breeding, resting, feeding or commuting GCN;
- To identify and assess potential ecological constraints to the proposed development arising from GCN;
- To prepare a report to assess the potential for the development to impact upon GCN;
- To provide recommendations for further ecological surveys where necessary; and,
- Recommend appropriate mitigation measures to enable compliance with wildlife legislation or to advise on the appropriate licensing route for works impacting GCN.

1.3.3. This report describes the findings of the literature review and field survey work, considers the potential impacts arising from the proposed development and proposes appropriate mitigation measures.

2. THE DEVELOPMENT PROPOSALS

2.1. The developments proposals considered by this assessment are for the following:

- Demolition of the exiting farmhouse and outbuildings and associated enabling works
- Construction of a new replacement dwelling.

2.2. The new development will approximately occupy the area currently taken up by the existing farmhouse building, associated outbuildings and areas of surfaced driveway and parking areas.

3. SURVEY METHODOLOGY

3.1. Desktop Study

3.1.1. In preparing this report reference has been made to the following:

- ERAP (Consultant Ecologists) Ltd (2021) - Results of Great Crested Newt Monitoring Surveys 2021.

3.1.2. Additional information was obtained from:

- Multi Agency Geographic Information for the Countryside (MAGIC) website;
- Natural England web site and online SSSI database including

3.2. Field Survey

3.2.1. The extended phase I habitat study area covered the whole of the area potentially impacted by the proposed demolition works.

3.2.2. The survey was undertaken by Rob Frith B.Sc. (Hons), Principal Ecologist at RDF Ecology. Rob holds a Level 2 survey licence for GCN (Licence Reference 2016-20277-CLS-CLS) and is a Registered Consultant under the GCN Low Impact License (Registration Number RC049). Rob is also named ecologist on a number of GCN development licences.

3.2.1. Extended Phase I Habitat Survey Methodology

3.2.1.1. An extended phase 1 habitat survey of the site was completed on 31 March 2023. All habitats within the site were surveyed.

3.2.1.2. Habitats present on the site were classified and mapped according to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat survey methodology (JNCC, 2010).

3.2.1.3. The primary aim of the survey was to identify areas of habitat of potential value to breeding, resting, feeding or commuting GCN.

3.2.1.4. A phase 1 habitat survey provides sufficient information on the composition of the vegetation present to enable it to be characterised and assessed in terms of its potential value to GCN

3.2.1.5. Target notes were prepared for any features of ecological interest and their locations noted in Figure 2.

3.3. Protected Species—Amphibians

Ponds - Habitat Suitability Index Assessment

3.3.1. A review of Google Earth and OS maps was conducted to identity any potential ponds within 500m of the site boundary and linked to it by suitable habitats for commuting GCN.

3.3.2. All of the new GCN ponds created as part of the ongoing NE licensed works were subject to Habitat Suitability Index (HSI) assessment surveys in 2021 (ERAP 2021) using the criteria in the HSI assessment methodology developed by Oldham et al (2000) and modified further by the Amphibian and Reptile Groups of the United Kingdom (ARG 2010).

3.3.3. The ponds were all assessed to be either good or excellent suitability for use by GCN.

Habitat Assessment

3.3.4. During the site visit on 31 March 2023 the habitats within the site were mapped and assessed for their potential value for breeding, resting, feeding or commuting GCN.

3.3.5. Limited careful lifting of paving and other potential refugia within the site was undertaken to look for any resting GCN.

Population monitoring

3.3.6. As part of the ongoing NE licensed works, 18 of the newly created ponds were subject to population size class assessment surveys in 2021 (ERAP 2021).

3.4. Limitation of Field Survey

3.4.1. The extended phase 1 habitat survey was undertaken on 31 March 2023 and whilst this is outside of the period generally considered to be the optimal vegetation survey period (i.e. April to September), the aim of the survey was not to complete a detailed botanical assessment of the site but to identify habitats of potential value to GCN. Given the timings of the survey, the nature of the modified habitats recorded on site and the aim of the survey it is considered that no limitations are present in the assessment of the site for protected/notable species and habitats.

3.4.2. The baseline conditions described in this report are accurate at the time at which the survey was undertaken. Should a considerable time pass (e.g. more than 2 years) and/or conditions/land-use on the site change prior to the commencement of works, it is recommended that an up-date survey is undertaken.

4. SURVEY RESULTS

4.1. Literature Review

4.1.1. The 2021 GCN monitoring report prepared for the landside Quarry (ERAP 2021) was reviewed in the preparation of this assessment.

4.1.2. The 2021 survey included 18 ponds created as part of the ongoing GCN licence works for Laneside quarry and confirmed that a large population (greater than 100 individuals) was present with a peak count of 299 GCN recorded.

4.1.3. The Figure 3 (extracted from the ERAP 2021 population monitoring report) shows the locations of the ponds surveyed (ponds NP1-4 were dry and not surveyed in 2021).

4.2. Habitat Descriptions

4.2.1. The results of the extended phase 1 habitat and protected species walkover surveys are presented below. Figure 2 illustrates the location and extent of all habitat types recorded on site.

4.2.2. The development site comprises a single large stone built former farmhouse with outbuildings a large, surfaced driveway and parking area with areas of garden, a tennis court and some mixed woodland planting on the steep bank above the property towards Crockley Hill Lane.

4.2.3. The adjacent habitats comprise areas of arable agricultural land and poor semi-improved grassland.

4.2.4. The following Phase 1 habitat types (JNCC codes in parenthesis) were recorded on site during the field survey:

- Mixed Plantation woodland (A1.3.2);
- Amenity Grassland (J1.2); and,
- Hard Surfaces and Buildings (J3.6 and J4).

4.2.1. Mixed Plantation woodland (A1.3.2)

4.2.1.1. On the steep slopes to the north of the property is an area of mixed plantation woodland with mown grass and ornamental shrubs forming the understorey and ground vegetation.

4.2.2. Amenity Grassland and Ornamental Planting Areas (J1.2 and J1.4)

4.2.2.1. The grassland within the site comprises areas of short mown amenity grassland.

4.2.2.2. Within the garden are a number of small, raised planting beds supported by low dry stone walls with gaps between stones that would allow entry to amphibians. There is also a large rockery on the south of the building with large stones, which did contain some small gaps that would allow access points for amphibians.


Photograph 1and 2—Raised planting beds and garden rockery

4.2.3. Hard Surfaces and Buildings (J3.6 and J4)

4.2.3.1. The majority of the site comprises the former farmhouse and areas of stone flagged patio and surfaced driveway. The gaps between the stone flags have been sealed with mortar and provide very little opportunity for amphibians to gain access to shelter under the flags.


Photograph 3 and 4—Hard Surfaced driveway and stone flags with mortared joints

4.2.3.2. One small area of poorly laid concrete flags was located on the western edge of the property and several of these were lifted to check for the presence of amphibians and none were recorded.


Photograph 5 and 6—Concrete flags adjacent to outbuildings

4.2.3.3. To the south of the concrete flagged area is a dry stone revetment wall supporting the land to the north. It is understood that this would be retained. It provides habitat accessible to amphibians and is located adjacent to an area of poor semi-improved grassland that appears to have developed from neglected amenity grassland.

Photograph 7—Dry Stone Revetment Wall

4.3. Protected Species

4.3.1. Amphibians

4.3.1.1. The site does not contain any ponds suitable for breeding amphibians including great crested newts.

4.3.1.2. The closest pond to the site is located approximately 90m north east of the site boundary in the garden of an adjacent property and is known to support ornamental Koi carp.

4.3.1.3. The only other ponds within 500m of the site boundary are those created as part of the NE licence for Laneside Quarry and their locations are shown in Figure 3. Some of the most southerly ponds are more than 500m form the site boundary.

4.3.1.4. The site is separated from these compensation ponds by the active Laneside Quarry site which is surrounded by amphibian exclusion fence that has been in place for more than 10 years as part of the NE licence agreement.

4.3.1.5. Examination of OS maps and satellite imagery indicates that there are no other ponds located within 500m of the site boundary that are connected to the site by areas of suitable terrestrial habitat

4.3.1.6. No amphibians were recorded during the field survey despite searches of suitable habitat and careful lifting or potential refuges.

5. EVALUATION AND RECOMMENDATIONS

5.1. Great Crested Newts and the Law

5.1.1. All UK native amphibians are afforded partial or full protection under Section 9 of the *Wildlife and Countryside Act 1981* (as amended) through their inclusion on Schedule 5 of the Act and Great Crested newts *(Triturus cristatus)* are provided the highest level of protection under The Conservation of Habitats and Species (as amended) Regulations 2017.

5.1.2. Under Regulation 43 of the Conservation of Habitats and Species Regulations 2017 (as amended) it is illegal to:

- Deliberately capture, injure or kill any wild animal of a European Protected Species (EPS) such as a GCN,
- Deliberately disturb wild animals of an EPS (affecting ability to survive, breed or rear young) — disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young,
- Deliberately disturb wild animals of an EPS (impairing ability to migrate or hibernate) — disturbance of animals includes in particular any disturbance which is likely to impair their ability in the case of hibernating or migratory species to hibernate or migrate,
- Deliberately disturb wild animals of an EPS (affecting local distribution and abundance) – disturbance of animals includes in particular any disturbance which is likely to affect significantly the local distribution or abundance of the species to which they belong,
- Damage or destroy a breeding site or resting place of a wild animal an EPS.

5.1.3. Under the Wildlife and Countryside Act 1981 (as amended) it is illegal to:

- Recklessly or intentionally obstruct access to any structure or place which any GCN uses for shelter or protection,
- Recklessly or intentionally disturb any GCN while it is occupying a structure or place which it uses for shelter or protection

5.1.4. If GCN or their breeding sites or resting places are considered reasonably likely to be on site and impacts upon the species cannot be avoided such that one or more of the Conservation of Habitats and Species Regulations 2017 (as amended) offences is reasonably likely to be committed a European Protected Species Licence from Natural England is required in order to allow the proposals to proceed (the licence allows derogation from the offences). (Licences cannot be obtained to provide protection against

offences under the Wildlife & Countryside Act 1981). As part of the licence application process a number of 'Tests' have to be met by the application.

5.1.5. Natural England Guidance Note: European Protected Species and the Planning Process –Natural England's Application of the 'Three Tests' to Licence Applications (March 2011) states: "In determining whether or not to grant a licence Natural England must apply the requirements of Regulation 55 of the Habitat Regulations 2017 and, in particular, the three tests set out in sub-paragraphs (2)(e), (9)(a) and (9)(b)

(1) Regulation 55(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment".

(2) Regulation 55(9)(a) states: the appropriate authority shall not grant a licence unless they are satisfied "that there is no satisfactory alternative".

(3) Regulation 55(9)(b) states: the appropriate authority shall not grant a licence unless they are satisfied "that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range."

5.1.6. Conservation status is defined as "the sum of the influences acting on the species concerned that may affect the long term distribution and abundance of its population within its territory". It is assessed as favourable when:

- population dynamics data on the species concerned indicate that it is maintaining itself on a long term basis as a viable component of its natural habitats, and
- the natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- there is, or will probably continue to be, a sufficiently large habitat to maintain its populations on a long term basis.

5.1.7. Where an offence under the Conservation of Habitats and Species Regulations 2017 (as amended) is reasonably likely to be committed by works envisaged in a planning application then the planning authority must also engage with these tests when determining a planning application.

5.1.8. It is possible to avoid offences through the provision of mitigation which minimises the potential for offences to be committed. Such mitigation may include undertaking works at an appropriate time of the year and

completing works in accordance with methods that will minimise or avoid potential disturbance or destruction of habitats. In such circumstance it is sensible for works to be completed under a working method statement.

5.2. Risk Assessment

5.2.1. The site does not contain any ponds suitable for breeding amphibians including great crested newts and none were recorded from the site during the field survey. **The demolition will not result in the loss of breeding ponds for GCN.**

5.2.2. The closest pond to the site is located approximately 90m north east of the site boundary in the garden of an adjacent property and is known to support ornamental Koi carp and is therefore unlikely to support breeding GCN.

5.2.3. More than 20 ponds are located within 500m of the site boundary and these are to the south of Laneside Quarry and were created as part of the agreed habitat compensation for the licensed loss of ponds within Laneside Quarry.

5.2.4. Between these ponds and the site is the amphibian exclusion fence around the active Laneside Quarry and the extent of this is shown in figure 3. This fence has been in place for more than 10 years and is regularly inspected and maintained as a requirement of the current NE licence. This fence will act as a very significant barrier to the movement of GCN from the compensation ponds to the site. The closest route for GCN to take from pond NP23 to the site would involve a journey of approximately 650m and would take GCN through areas of good terrestrial habitat further reducing the likelihood of them reaching the site.

5.2.5. Between the site and the exclusion fence at Laneside Quarry are extensive areas of arable agricultural land known to be of very low value to foraging and commuting GCN and is likely to act as a further barrier to GCN movement from the compensation ponds to the site. This site itself provides very little habitat of potential value to GCN.

5.2.6. Whilst GCN are known to move considerable distances from their breeding ponds, the vast majority of GCN will remain much closer to their breeding ponds (NE 2001). The quality of terrestrial habitat near to breeding ponds is an important factor in determining how far they are likely to travel. Where good quality terrestrial habitat is found close to their breeding ponds, GCN are unlikely to travel large distances, whereas poor quality habitat close to the ponds may force them to travel greater distances to find suitable terrestrial foraging habitat.

5.2.7. In contrast, the compensation ponds are located within areas of high value habitat that has been specifically created for and is being managed for the benefit of great crested newts. The monitoring work completed by ERAP between 2008 and 2021 (ERAP 2021) indicates that the compensation ponds and habitats have been very successful and still support a large population of great crested newts. It is therefore likely that GCN breeding in these ponds are unlikely to travel the large distance to the site boundary, given the availability of high value habitat surrounding to the ponds.

5.2.8. This analysis is supported by the conclusions of English Nature (EN) Research Note 576 (2004), an assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus,* which notes that

"The most comprehensive mitigation, in relation to avoiding disturbance, killing or injury is appropriate within 50m of a breeding pond. It will also almost always be necessary to actively capture newts 50-100m away. However, at distances greater than 100m, there should be careful consideration as to whether attempts to capture newts are necessary or the most effective option to avoid incidental mortality. At distances greater than 200-250m, capture operations will hardly ever be appropriate."

5.2.9. The research report also notes:

"Where there were no obvious features to 'target' with fencing, capture success along fences declined sharply with distance from ponds, and captures within the 50-100m zone were generally inefficient. Captures on fences (and by other methods) at distances between 100m and 200-250m from breeding ponds tended to be so low as to raise serious doubts about the efficacy of this as an approach, although a small number of projects did report captures on significant linear features at distances of approximately 150-200m from ponds."

5.2.10. Given the distances between the site and the nearest known breeding ponds south of Laneside Quarry, the high quality of habitats in the immediate area around those ponds, the presence of the exclusion fence around Laneside Quarry and the areas of arable agricultural land around the site boundary and the lack of other suitable ponds within 500m of the site, it is assessed that GCN are highly unlikely to be encountered during the proposed demolition.

5.2.11. When assessing the potential risk of an offence being committed with regard to GCN and to assist in identifying whether an EPS licence is

required, Natural England provides a rapid assessment tool in the method statement spreadsheet used in the licence application process.

5.2.12. The loss of habitats within the site will amount to approximately 0.005ha and comprises areas of dry stone wall associated with the raised planting beds attached to the farmhouse that are to be removed as part of the demolition works. These area located more than 250m away from the nearest GCN breeding pond and assuming that GCN are not likely to be encountered during the demolition works, the risk assessment indicates that an offence is highly unlikely to occur and an EPS licence would not be required.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	0.001 - 0.01 ha lost or damaged	0.0005
Individual great crested newts	No effect	0
	Maximum:	0.0005
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Figure 1—Natural England Rapid Risk Assessment Tool

5.2.13. With this assessment conclusion, it is not recommended that any further survey work for this species be conducted and that an EPS licence would not be required for the development as proposed and that the works would not kill, injure or disturb GCN and would not have a negative impact upon their favourable conservation status as outlined above provided the recommendations below are implemented.

5.2.14. It has been assessed that the scheme would be eligible to be registered under the GCN Low Impact Class Licence scheme in the unlikely event that GCN were to be encountered during the demolition works.

5.3. Recommendations

5.3.1. Reasonable Avoidance Measures Method Statement

5.3.1.1. Whilst no GCN were recorded on site and this assessment concludes that GCN are unlikely to be encountered during the demolition and construction works, it is recommended that a precautionary approach be adopted given the size of the GCN population recorded at Laneside Quarry to the south.

5.3.1.2. Consequently, the demolition works would be completed under the guidance of a Reasonable Avoidance Measures Method Statement and supervised by a suitable licenced and qualified ecologist.

5.3.1.3. The method statement will include details of the following:

- Methods to be adopted for the hand dismantling of all raised bed dry stone walls and areas of paving potentially accessible to resting GCN.
- How the works will be supervised by a suitably qualified and licenced ecologist
- Timing of works to ensure that they only occur during the GCN active season and that not work is undertaken when the night time temperature is below 5^0C
- The actions to be taken if GCN are encountered at any point during the demolition works.

5.3.2. Action to be taken upon discovery of GCN

5.3.2.1. In the unlikely event that GCN are encountered during the demolition works all works will stop and the site would be registered under a GCN Low Impact Class Licence site registration and any appropriate mitigation works completed prior to recommencing the demolition works.

5.3.2.2. ***RDF*** Ecology have determined that the proposed development would be compatible with a GCN LICL site registration if GCN were to be encountered.

6. FIGURES

Figure 1—Site Location

Figure 2—Phase I Habitats

Figure 3—GCN Mitigation

Cockley Hill Building Demolition

419000

418000

Cockley Hill

Lane

B6118

Cockley Hill Farm

Bellstring Lane

Cockley Hill Lane

Willow Court

N

419000

KEY

Site Boundary

Scale: 1:5,000 @A4

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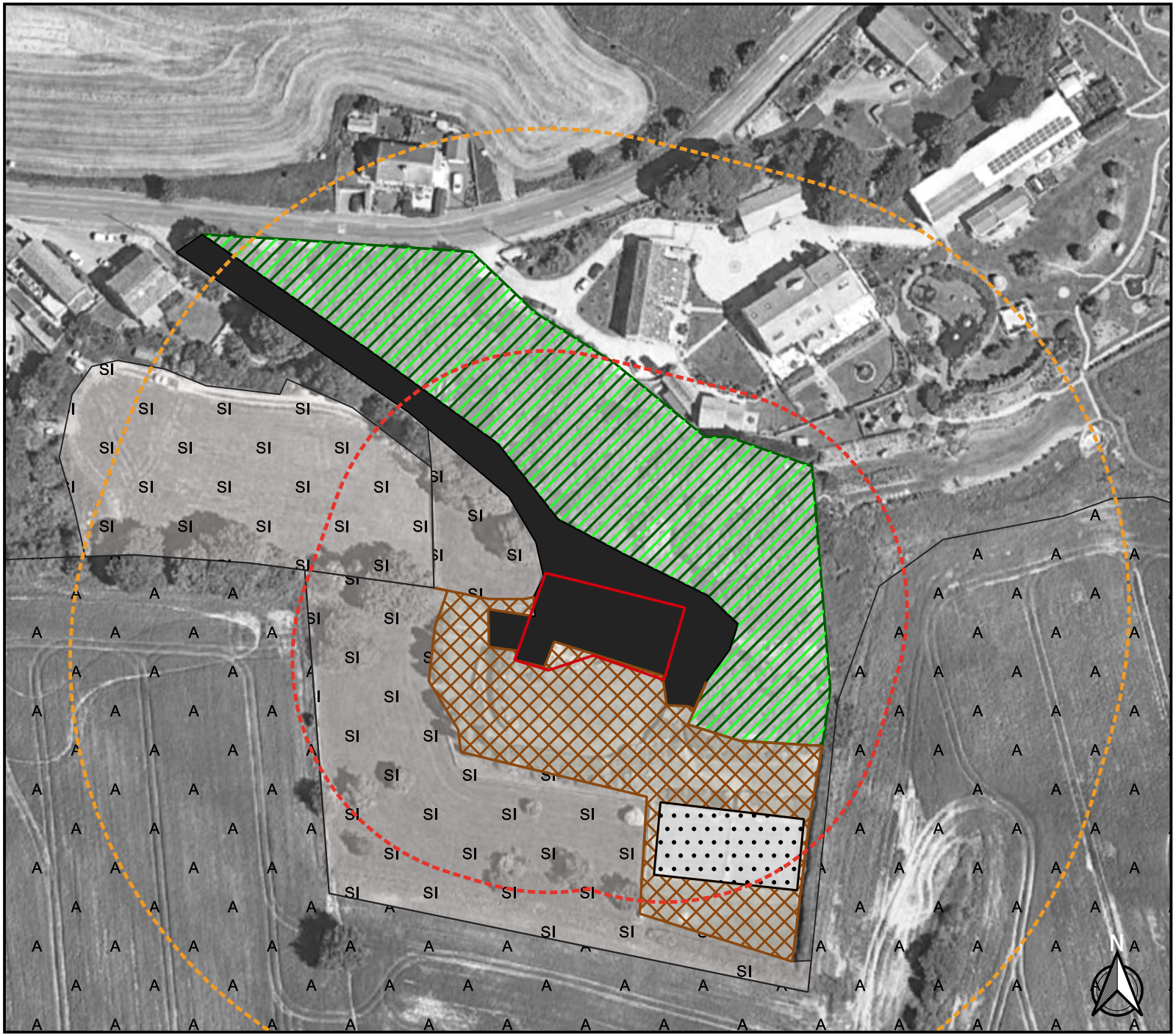
Fig 1 - Site Location



Cockley Hill Building Demolition

KEY

- Site Boundary

Site Buffers

- 50m
- 100m
- 250m
- 500m

Phase 1 Habitats

- Mixed plantation woodland
- Poor semi-improved grassland
- Arable
- Buidings and sealed surfaces
- Bare ground
- Gardens

Scale: 1:1,250 @A4

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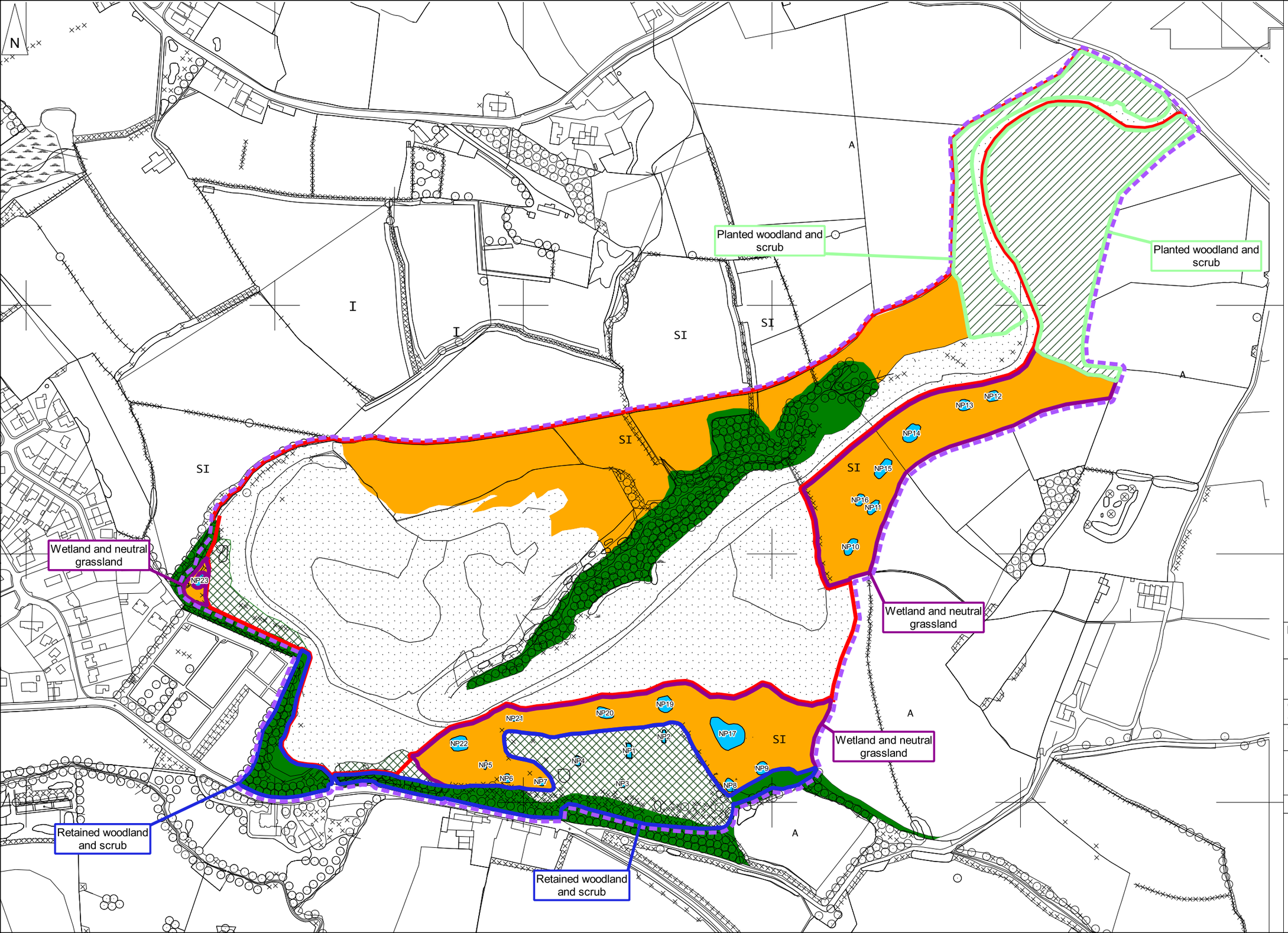
Fig 2 - Phase 1 Habitats



Key to Map Symbols

- Site boundary
- Perimeter amphibian exclusion fencing
- Broadleaved woodland - semi-natural
- Broadleaved woodland - plantation
- Dense continuous scrub
- SI — Neutral grassland - semi-improved
- I — Improved grassland
- SI — Poor semi-improved grassland
- A — Arable
- Ponds (NP1 to NP23 are under the Habitat Management Plan)
- Bare ground and hard standing

Figure A:
Plan to Show Areas and Habitats Under the Habitat Management Plan

Project Name:
Laneside Quarry, Kirkheaton

Central Grid Ref:
SE 18896 17529

Reference No.
ERAP Ltd. 2021-021b

Version & Date:
v1 (BR)29/09/2022

Scale: 1:4,000.@A3

0 50 100 150 200 m

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7. REFERENCES

7.1. Project References

ERAP (2021) Laneside Quarry, Kirkheaton Results of Great Crested Newt Monitoring Surveys 2021.

7.2. Technical References

CIEEM (2018)—Guidelines for Ecological Impact Assessment in the UK and Ireland— Terrestrial, Freshwater, Marine and Coastal. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal (second edition). Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2016) Guidelines for Accessing and using Biodiversity Data. Chartered Institute of Ecology and Environmental Management, Winchester.

Department for Communities and Local Government (2012), National Planning Policy Framework. Department for Communities and Local Government, London.

English Nature (2004) An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus* Research Report Number 576. Peterborough

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

HMSO Conservation of Habitats and Species (Amendment) Regulations 2017.

HMSO Wildlife and Countryside Act 1981 (as amended).

HMSO (2006) Natural Environment and Rural Communities Act.

HMSO (2005) Biodiversity and Geological Conservation – Statutory Obligations and Their Impact within the Planning System. Office of the Deputy Prime Minister (ODPM) Circular 06/2005 HMSO, Norwich.

JNCC (2010) Handbook for Phase 1 Habitat Survey: A technique for environmental audit (reprint). Joint Nature Conservation Committee, Peterborough.

Stace, C. (1997) New Flora of the British Isles 2nd Edition. Cambridge University Press, UK.