

Land at 29a Cemetery Road, Hemingfield

Preliminary Ecological Appraisal

16th June 2017



Prepared by:

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Document ref : MEC/PEA/2017/12/1				
Purpose and Description	Originated	Checked	Reviewed	Date
For Planning	P Middleton MCIEEM <i>P Middleton</i>	R Bell MCIEEM <i>R Bell</i>	-	16/06/17

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Site Name Land at 29a Cemetery Road	Location Cemetery Road, Hemingfield S73 0PU
Document ref: MEC/PEA/2017/12/01	
Local Authority Barnsley Metropolitan Borough Council	Grid Reference SE 39159 01369
Surveyor Peter Middleton MCIEEM	Date of Survey 18/05/2017
Geology/soil type Coal Measures	Designation of Site None

Phase 1 Habitat Types on Site C3.1 Tall ruderal, B4 Improved grassland, A2.2 Scattered scrub, A1.1.1 Broad leaved woodland, J3.6 Buildings, J4 Bare ground, J1.2 Amenity grass
NVC Communities on Site Affinity with MG1
Protected/Notable Species, Constraints on Site Nesting birds, <i>Cotoneaster horizontalis</i> , foraging bats
HPis and SPIs under NERC Act 2006 Ponds
Barnsley BAP Ponds

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1. Summary

- 1.1.1 The preliminary ecological appraisal of land behind 29a Cemetery Road, Hemingfield was commissioned by architect Mark Booth on behalf of the client on 16th May 2017. The survey was commissioned to inform an outline planning application for a residential development indicative of 23 dwellings.
- 1.1.2 The pond on site is considered to be of local importance to nature conservation. No other site habitat or species group is considered to be of importance at greater than the site level.
- 1.1.3 The following ecological constraints and associated recommendations to avoid/mitigate/compensate for potential impacts have been identified, no further survey work is considered necessary:
- **Bats** – Increase in night-time lighting from security lights which has the potential to negatively affect foraging bats. Avoid lighting impacts through sensitive lighting design;
 - **Pond** – Potential loss of existing pond which is a HPI and Local BAP Habitat.
 - **Invasive flora** (presence of *Cotoneaster horizontalis* on site) – Avoid spread through development of a plan to control the species during construction works.
 - **Nesting birds** (Nesting opportunities across site) – Clearance of habitats outside nesting season or checks by an Ecological Clerk of Works (ECoW)
 - **Hedgerow** (along boundaries of site) – Retention of hawthorn hedgerow along site boundaries and protection through tree protection measures in accordance with BS5837:2012.
- 1.1.4 In addition to mitigation recommendations outlined above enhancement recommendations provided include:
- In-situ cavity boxes and house sparrow boxes integral to the fabric of the buildings.
 - Recommendation to retain and enhance the existing pond to include partial clearance of vegetation.
 - New tree and shrub plantings of locally native standard species of trees and shrubs.
 - Boundaries and fences that will not impede the free movement of hedgehogs throughout the site.
- 1.1.5 Providing the mitigation recommendations detailed in the report, including pond retention, are adopted then no ecological impacts of greater than site level importance are envisaged as a result of the proposed development.

2. Introduction

- 2.1.1 This preliminary ecological site appraisal was commissioned by architect Mark Booth on 16th May 2017 on behalf of the client IK & RE Barnes. The site is subject to an outline planning application for a residential development (indicatively for 23 dwellings).
- 2.1.2 The purpose of this report is to present the results of an extended Phase 1 habitat survey which includes determining the potential for, or presence of, protected and notable species, plus an appended map of the site showing the Phase 1 habitats present. Some sites require subsequent targeted species surveys but in many cases the preliminary ecological appraisal is sufficient to accompany the planning application. Therefore, recommendations in relation to avoiding, mitigating and compensating for ecological impacts are included in this report together with biodiversity enhancement recommendations.
- 2.1.3 Key legislation relating to designated sites and protected species and habitats is detailed in Appendix 3. The implications of legislation are detailed in the body of the report where necessary.

3. Site Description

- 3.1.1 The site comprises 29a Cemetery Road, Hemingfield and the land at the rear of the property. The largely rectangular shaped plot of 0.57ha is on a gentle slope running from northwest to south east and is surrounded on all sides by development. In addition to the dwelling and associated garage, there are several outbuildings including disused garages and pig sties. Habitats present on site include improved grassland, broad leaved woodland, tall ruderal vegetation, scattered and dense scrub and a pond.
- 3.1.2 Land adjacent to the application site supports the following habitats.
- Defunct unmanaged hedgerow (southwestern boundary)
 - Residential and associated gardens
 - Hard surface (roads)
- 3.1.3 The surrounding area is predominantly residential (see Figure 1). The site falls within Natural Area 24 Coal Measures which is characterised by dense populations centred on a number of towns and cities that developed largely as a result of the underlying coal fields. The topography of the Natural Area is gently undulating and the network of towns and cities is characterised by a matrix of acidic ancient and secondary woodlands, valley wetlands, neutral and acid grasslands, and mixed agriculture. Canals, mill-ponds and natural rivers are also important features.

Figure 1 The site indicated by red circle



4. Methodology

4.1 Data Consultation

4.1.1 Barnsley Biological Records Centre (BBRC) were contacted to request the following information for locations within a 1.5km radius of the site:

- Protected and notable species records
- The boundaries of non-statutory designated sites of nature conservation interest

4.1.2 A search of the Multi-Agency Geographical Information for the Countryside (MAGIC) website was undertaken to determine the following:

- The boundaries of statutory designated sites of nature conservation interest
- The locations of historic European Protected Species (EPS) licences granted by Natural England

4.2 Field Survey

4.2.1 The site was surveyed on 18th May 2017 using extended Phase 1 habitat survey methodology (JNCC, 2010) by the following personnel:

- Peter Middleton (MCIEEM)

4.2.2 Notable, rare or scarce plant species were highlighted if present. Evidence of protected species or species of nature conservation importance was recorded where present at the time of survey. Species recorded are included within the report as appropriate. Information is presented on the Phase 1 plan, using Target Notes (TN) to identify particular features of interest, where appropriate. Additionally, and where

possible, habitats were classified using the National Vegetation Classification (NVC), as described in the JNCC National Vegetation Classification – Users Handbook (Rodwell, 2006).

- 4.2.3 Ariel photographs (google earth) were studied to place the site in its wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This is particularly useful for identifying wildlife corridors and ponds but because the latter are often not apparent on aerial photographs, OS 1:25 000 scale maps are also used.
- 4.2.4 Habitats of Principal Importance (HPIs) and Species of Principal Importance (SPIs) are included on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 were noted together with priority species and habitats as included on the Local Biodiversity Action Plan (LBAP).
- 4.2.5 The value and sensitivity of ecological features present on site were determined based on the guidance given in 'Guidelines on Ecological Impact Assessment' (CIEEM, 2016). Individual ecological receptors (habitats and species that could be affected by the development) for the scheme were assigned levels of importance for nature conservation. The highest level is international, then decreasing in order of importance through national, regional, county, local and lastly site.

4.3 Survey Limitations

- 4.3.1 No limitation were identified.

5. Results

5.1 Data Consultation

- 5.1.1 Designated sites present within 1.5km of the site are detailed in Table 1.

Table 1. Designated sites

Designation	Name	Interest	Distance and direction to site
Local Wildlife Site (LWS)	Wombwell Wood	Ancient semi-natural broadleaf woodland	530m north west

- 5.1.2 No impacts are anticipated upon the designated site because of the distance from the application site.
- 5.1.3 Records of protected and notable species obtained are discussed in the species sections of the results.
- 5.1.4 No EPS mitigation licences have been obtained for locations within 2km of the application site.

5.2 Field Survey

- 5.2.1 The arrangement of site habitats is shown on the Phase 1 plan in Appendix 1, whilst a filtered species list to show amphibians, reptiles and terrestrial mammals are provided in Appendix 2.
- 5.2.2 All site habitats with the exception of the pond are considered to be of site level importance to nature conservation. The pond is considered to be of local importance to nature conservation. The site is not considered to be of greater than site level importance to any species group.
- 5.2.3 A detailed description of the site habitats and site's potential to support protected and notable species is provided below.

Habitats

B4 Improved grassland

The grassland is species poor and contains abundant cock'sfoot *Dactylis glomerata* and red fescue *festuca rubra* together with frequent false oat-grass *Arrhenatherum elatius* and Yorkshire fog *Hocus lanatus*. Herbs are poorly represented and the grassland shows signs of nutrient enrichment with occasional broad leaved dock *Rumex obtusifolius*, common sorrel *Rumex acetosa*, spear thistle *Cirsium vulgare* and creeping thistle *Cirsium arvense*. Other herbs include frequent meadow buttercup *Ranunculis acris*, cow parsley *Anthriscus sylvestris* and creeping buttercup *Ranunculus repens*.

Plate 1. Tall ruderal (nettle), improved grassland and pig sties



J4 Bare ground

- 5.2.4 Bare ground is present and includes the access and driveway to the dwelling and land at the rear.

C3.1 Tall ruderal

- 5.2.5 Tall ruderal vegetation dominated by either nettle *Urtica dioica* or great willowherb *Epilobium hirsutum* covers a large proportion of the site (see Plates 1 & 2).

Plate 2. Single brick garage with tall ruderal and bramble in the foreground



A2.2 Scattered scrub

There is occasional bramble *Rubus fruticosus* and rare hawthorn *Crataegus monogyna*, hazel *Corylus avellana* and elder *Sambucus nigra*. The latter three species being close to or at the boundary.

A1.1.1 Broad leaved woodland

- 5.2.6 There is a small area of self-set ash *Fraxinus excelsior* near the southeast corner of the site (see Plate 3). Trees within this small block are immature.

Plate 3. Self-set immature ash trees with improved grassland in foreground



G1 Standing water

- 5.2.7 A small pond measuring 8 x 7m has an abundance of emergent vegetation (bulrush *Typha latifolia*) and the water is obscured (see Plate 4).

Plate 4. Pond obscured by bulrush



- 5.2.8 The pond fits loosely within the Ponds HPI and within the Ponds priority habitat in the Barnsley Local Biodiversity Action Plan. The pond therefore is considered to be of up to local importance to nature conservation.

J3.6 Buildings

- 5.2.9 There is a modern single storey brick built dwelling and garage plus several outbuildings. The buildings are discussed in more detail in relation to their potential to support bats within the Species section of the report.

Plate 5. North elevation of dwelling that fronts the highway



Plate 6. Garage, dwelling with improved grassland in foreground.



Amenity grassland

- 5.2.10 At both the front and rear of the dwelling are small areas of amenity grass dominated by perennial ryegrass *Lolium perenne*.

Species

Amphibians

- 5.2.11 A single Great Crested Newt (GCN) *Triturus cristatus* record was provided by BBRC for a location more than 700m northeast of the site which is north of the busy A6195 dual carriageway.
- 5.2.12 A HSI assessment was undertaken on the pond and water samples were taken for eDNA analysis on the 6th June (see Table 2). The results returned from Surescreen Scientifics proved a negative result for the presence of GCN (see Appendix 6).

Table 2. Pond HSI result

HSI Pond Results	Pond	HSI Scores to define pond suitability for GCNs		
Location 1	1	<0.5 = Poor 0.5 – 0.59 = Below average 0.6 – 0.69 = Average 0.7 – 0.79 = Good >0.8 = Excellent		
Pond Area 2	0.1			
Pond Permanence 3	0.9			
Water Quality 4	1			
Pond Shading 5	1			
No of Waterfowl 6	1			
Fish Presence ⁷	0.67			
Pond Density 8	1			
Newt Friendly Habitat 9	1			
Macrophyte 10	0.8			
Multiplication	0.0482			
Result Root (overall HSI)	0.7385			
	GOOD			

Badger

- 5.2.13 No badger records were provided by BBRC for a location more than 1.5km from the application site.
- 5.2.14 The application site and its environs were searched for any signs of badgers but none were found. No setts are currently present on site however the site may be used as part of wider badger foraging areas.

Bats

- 5.2.15 One dwelling, two pig sties and three garages are present on site. No signs of bat presence were recorded from any of these buildings.
- 5.2.16 The detached dwelling is single storey with a concrete tile roof with ridge and gables. It has no features whatsoever with potential to accommodate bats, the UPVC soffits and fascia's are totally sealed and the roof and wall of the building are devoid of features.
- 5.2.17 The loft-space of the dwelling has 200mm of glass fibre insulation at ceiling height and 1f bitumen hessian felt beneath the tiles, no signs of bats were found.
- 5.2.18 The double garage belonging to 29a Cemetery Road has a concrete tile roof with ridge and gables and a wood fascia along each side. The fascia was inspected with the aid of a torch and was found to be very 'cobwebby' and no signs of bats were found.
- 5.2.19 The remainder of the buildings comprise two pig sties and two garages all of which are brick built (4ins walls) with corrugated asbestos cement roofs. All are single skin and contain no crevices likely to support a bat roost.
- 5.2.20 The dwelling has been assessed as having negligible bat roost potential whilst the remainder of the buildings display features with no more than negligible bat roost potential.
- 5.2.21 No trees on site are old enough to have features with potential to accommodate bats.

Birds

- 5.2.22 House sparrow *Passer domesticus* which is a SPI bird species and a Red Listed Species of Conservation Concern (Eaton *et al.*, 2015) was recorded on site in abundance.
- 5.2.23 A typical assemblage of common resident birds were recorded at the sites boundaries, these included: robin *Erithacus rubecula*, blackbird *Turdus merula*, wren *Troglodytes troglodytes* and dunnoek *Prunella modularis*, The list is not exhaustive and several other common resident birds are likely to inhabit the site.
- 5.2.24 Scrub and derelict buildings on site have potential to be used by a range of species for nesting.

Water vole

- 5.2.25 No water vole records were provided by BBRC for a 1.5 kilometre radius of the application site.
- 5.2.26 No signs of water vole *Arvicola amphibius* were recorded from the site. Water vole are

unlikely to be present in the pond on site as it is small and has no connectivity with other wetlands or watercourses.

Reptiles

5.2.27 Two grass snake *Natrix natrix* records were provided by BBRC for locations 750m and 1.5km from the application site and both locations are north of the busy A6195 dual carriageway.

5.2.28 Whilst there is perhaps suitable habitat on site, the pond is small and the site is largely surrounded by the built environment and therefore there is no connectivity with suitable habitat elsewhere. Further survey work is not considered justified given the low likelihood of presence.

Invasive species

5.2.29 There is a single *Cotoneaster horizontalis* shrub near the northeast boundary.

6. Assessment

6.1 Proposals

6.1.1 The proposal development comprises the construction of a residential development (indicatively of 23 dwellings). The boundaries will remain intact and the pond will be retained.

6.1.2 The assessment of impacts is based upon the proposed plan entitled P1 REV B 16/06/2017.

6.2 Assessment of Impacts

6.2.1 The potential impacts of the development are considered to comprise:

- Loss of the pond which is a Habitat of Principal Importance and a local BAP Habitat.
- Loss of small copse which will negatively affect the overall diversity of the site.
- Increase in night-time lighting from security lights which has the potential to negatively affect foraging bats.
- Temporary increase in vehicle movements during the period of construction into and out of the site.
- Temporary increase in noise, dust and vibration caused by construction work.
- Loss of tall ruderal vegetation and scrub which will negatively affect invertebrates.
- Destruction of active bird nests during site clearance. It is an offence to damage or destroy active bird nests (see Appendix 3).
- Spread of cotoneaster as a result of development activities. It is an offence to plant or otherwise cause this plant species to grow in the wild (see Appendix 3)

6.2.2 Of the impacts detailed above, with the exception of the pond. Either a pollution incident or the loss of habitats would result in impacts to nature conservation at a site level only. The loss of the pond would result in impacts at a local level.

6.2.3 Methods to avoid or mitigate for the impacts detailed above is discussed in section 6.3.

6.3 Further Survey and Mitigation

6.3.1 In order to avoid or mitigate ecological impacts of the scheme it is advised that the following recommendations are adopted:

- Retain existing pond as it is a Habitat of Principal Importance under NERC Act 2006 plus a Barnsley BAP habitat.
- In order to minimise the risk of a pollution to the pond it is recommended that best construction practice and environmental management including CIRIA guidance (Conolly and Charles, 2005) and various DEFRA/Environmental Agency guidelines (2016), that have replaced the Pollution Prevention Guidelines (Environment Agency, 2007) are followed. In particular site compounds should be sited away from the watercourse and LWS, and any mechanical equipment used on site should be equipped with spill kits and operators should be trained in their usage.
- Development of a plan to eradicate *Cotoneaster horizontalis* from site prior to development in order to prevent seed spread. This can either be undertaken through removing plants prior to works commencing at an appropriate time of year. MEC can advise on appropriate control measures.
- Site clearance should take place at a time when it will not affect nesting birds (outside March to August). If works are to be undertaken during this time then they should be preceded by a nesting bird check.
- All boundaries and associated trees should remain intact. Taking a best practice approach to nature conservation issues, where boundary hedgerows and trees are to be retained, British Standard 5837 (2012): Trees in relation to design, demolition and construction, should be followed. Root Protection Zones (RPZ's) should be calculated and implemented to prevent harm to trees. This should also apply to any trees outwith the site, up to 5 m from the boundary.

6.3.2 No further survey is recommended providing that mitigation recommendations are adopted and works commence on site within 24 months of the field survey. If works commence after this date then MEC should be contacted to determine the need for further survey.

6.4 Recommended Enhancements

6.4.1 In accordance with the aims of planning policy NPPF: 11, it is suggested that the developer follows the recommendations detailed below. Please note that the enhancements have been informed by the results and findings of the field survey.

- Half of the properties should have in-situ cavity boxes or bat tubes integral to the fabric of the buildings situated high on the south and west facing gables but not over windows or doors. The remainder should have house sparrow boxes under eaves either integral to the fabric of the building or fastened to the wall surface.
- Enhancements to the existing pond should be made including partial clearance of vegetation.
- New tree and shrub plantings should be an integral component of the soft landscaping proposals for the site. Plantings within the site should be generous and be locally native standard species of trees and shrubs.
- Dwelling boundaries and fences should not impede the free movement of hedgehogs throughout the site.

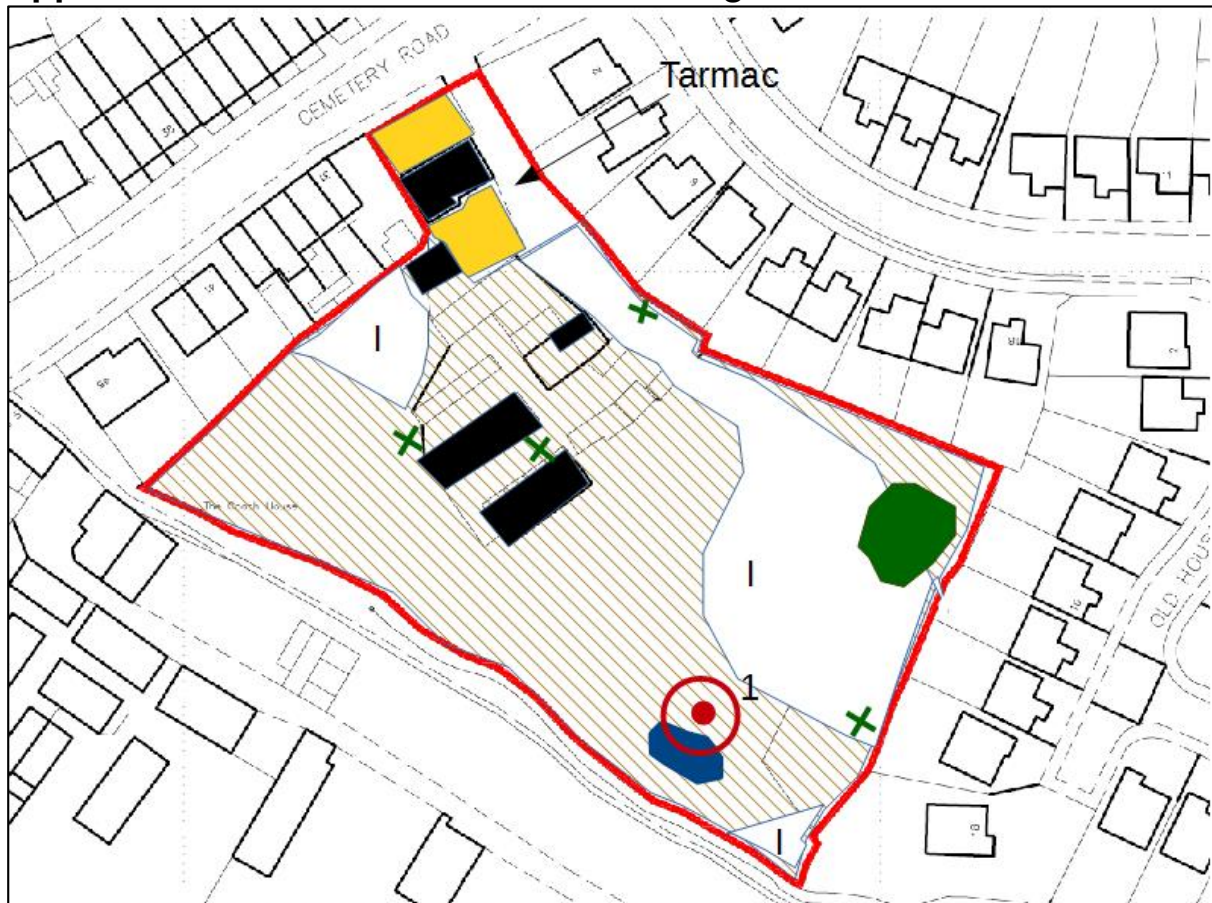
6.5 Conclusion

- 6.5.1 Provided the mitigation options detailed in section 6.3, including pond retention, are adopted then no significant impacts on nature conservation are envisaged.
- 6.5.2 No further survey is recommended providing works commence on site within 24 months of the field survey.

7. References

- Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines. The Bat Conservation Trust.
- Connolly, S and Charles, P. (2005) Environmental Good Practice Pocket Book. CIRIA, London.
- Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. British Birds 108, 708–746.
- Environment Agency (2007) Pollution Prevention Guidelines – Works and maintenance in or near water: PPG5. Now retracted, but available from: <https://www.gov.uk/government/collections/pollution-prevention-guidance-ppg>
- Froglife (1999). Froglife Advice Sheet 10: reptile survey. Froglife, London.
- Gent T and Gibson S (2003). Herpetofauna Workers Manual. JNCC, Peterborough.
- Gunnel K, et al 2013, Designing for Biodiversity: A technical guide for new and existing buildings, RIBA Publishing.
- Harris S, Cresswell P and Jefferies D (1989). Surveying Badgers. Mammal Society.
- Institute of Environmental Management (2006) Guidelines for Ecological Impact Assessment in the United Kingdom.
- Institute of Environmental Management (2013) Guidelines for Preliminary Ecological appraisal.
- Joint Nature Conservation Committee (2010). Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit. Reprinted by JNCC, Peterborough.
- Gunnel K, et al 2013, Designing for Biodiversity: A technical guide for new and existing buildings, RIBA Publishing.
- Mitchell-Jones AJ, 2004, Bat Mitigation Guidelines, English Nature.
- Rodwell, J.S, (2006), NVC Users' Handbook. JNCC

Appendix 1. Phase 1 Plan and Aerial Image



Target Note 1: pond with abundant bulrush



Appendix 2. Plant Species Recorded on Site

Full Species List		
English Name	Scientific Name	DAFOR Rating
Yorkshire fog	<i>Holcus lanatus</i>	F
Red fescue	<i>Festuca rubra</i>	A
Broad leaved dock	<i>Rumex obtusifolius</i>	O
Red valerian	<i>Centranthus ruber</i>	Loc A
Spear thistle	<i>Cirsium vulgare</i>	O
Lesser trefoil	<i>Trifolium dubium</i>	O
Daisy	<i>Bellis perennis</i>	R
Dandelion	<i>Taraxicum officinale</i>	O
Red clover	<i>Trifolium pratense</i>	O
Nettle	<i>Urtica dioica</i>	Loc D
Elder	<i>Sambucus nigra</i>	R
Ragwort	<i>Senecio jacobea</i>	O
Cock's foot	<i>Dactylis glomerata</i>	A
Common sorrel	<i>Rumex acetosa</i>	O
Cotoneaster horizontalis	<i>Cotoneaster horizontalis</i>	R
Hawthorn	<i>Crataegus monogyna</i>	R
Bramble	<i>Rubus fruticosus</i>	O
Meadow buttercup	<i>Ranunculus acris</i>	F
Creeping buttercup	<i>Ranunculus repens</i>	F
Ribwort plantain	<i>Plantago lanceolata</i>	O
Soft rush	<i>Juncus effusus</i>	Loc A
Bulrush	<i>Typha latifolia</i>	Loc A
False oat-grass	<i>Arrhenatherum elatius</i>	F
Creeping bent	<i>Agrostis stolonifera</i>	R
Smooth meadow-grass	<i>Poa pratensis</i>	O
Barren brome	<i>Anisantha stelleris</i>	Loc A
Hedge mustard	<i>Sisymbrium officinale</i>	R
Hazel	<i>Corylus avellana</i>	R
Great willowherb	<i>Epilobium hirsutum</i>	Loc D
Hogweed	<i>Heracleum sphondylium</i>	O
Cow parsley	<i>Anthriscus sylvestris</i>	F
Ash	<i>Fraxinus excelsior</i>	Loc D
Meadow foxtail	<i>Alopecurus pratensis</i>	O
Bearded couch	<i>Elymus caninus</i>	O
Tufted vetch	<i>Vicia cracca</i>	A
Creeping thistle	<i>Cirsium arvense</i>	O
Cleavers	<i>Gallium aparine</i>	O

Appendix 3. Relevant Legislation

Wildlife legislation relating to statutory designated sites and species is summarised in Table A1 and A2 below. This legal information is intended for summary only, and the original legal documents should be consulted if a detailed understanding is required.

Table A1. Legislation relating to designated sites and habitats

Designated Site	Legal Status
Local Wildlife Site (LWS)	While they have no direct legal status, Local Wildlife Sites are considered important enough to receive recognition within the planning system. National planning policy requires local authorities to identify Local Wildlife Sites and provide for their protection through local policy.
Hedgerows	Hedgerows that meet certain criteria are protected by The Hedgerows Regulations 1997, under which it is an offence to remove or destroy such hedgerows without permission from the Local Planning Authority.

Table A2. Legislation relating to species

Species	Legal Status
European protection	
European Protected Species (EPS) (including bats, Great Crested Newt (GCN), otter and hazel dormouse)	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: • Intentionally or deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; • Deliberately disturb such an animal; • Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed: • The development is for reasons of overriding public interest; • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed. Natural England also allow sites to be registered on the Bat Low Impact Class Licence to permit activities that would otherwise be unlawful under the Conservation Regulations where the 3 tests can

Species	Legal Status
	be passed and the bat roosts to be impacted are of low conservation status.
National protection	
European Protected Species and other species including: water vole and white clawed crayfish	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any such animal; • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Common amphibians and reptile species	These animals receive limited protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal to intentionally kill or injure any such animal.
Badger	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and also make it illegal to intentionally or recklessly interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted by Natural England to permit sett closure and/or disturbance between July and November inclusive.
Schedule 1 birds	Special penalties relate to offences concerning birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to intentionally or recklessly disturb any Schedule 1 bird or their dependent young while nesting.
All bird species	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird; • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Invasive species	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act. In relation to Schedule 9 plants it is an offence to plant or otherwise cause these plant species to grow in the wild.

Species and Habitats of Principal Importance

Planning authorities have a duty under Section 40 of the NERC Act 2006 to have regard to priority species and habitats in exercising their functions including development control and planning. In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI). The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

National Planning Policy Framework

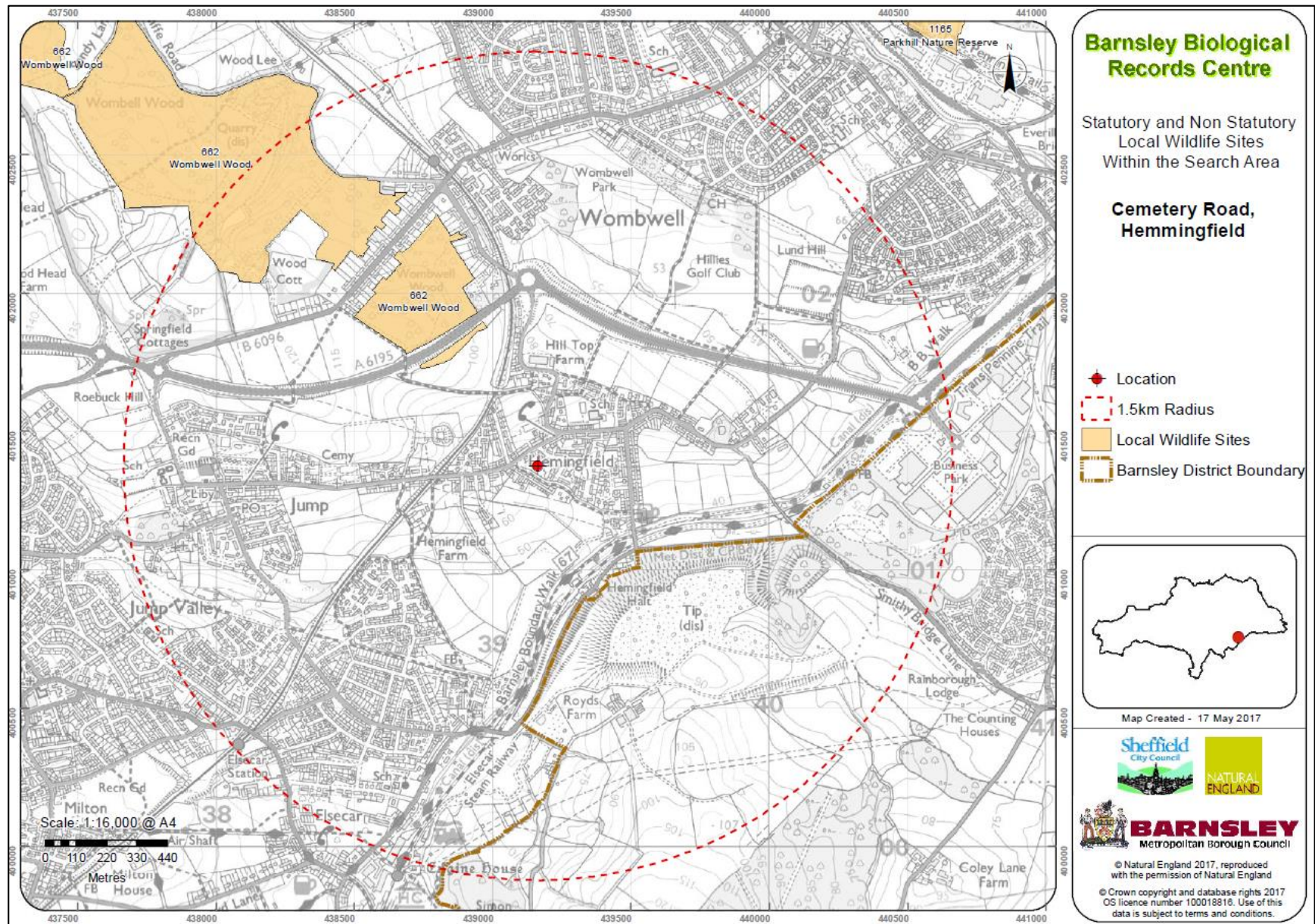
The National Planning Policy Framework for England was introduced in March 2012. The NPPF's policy on biodiversity has been summarised by the Government as: "The Framework underlines that the planning system should seek not just to protect, but, where possible to

enhance biodiversity – making sure we don't just have isolated pockets of wildlife, but rich and connected green spaces for all kinds of species to thrive. Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland."

Local Biodiversity Action Plans

The HPI/SPI list included on Section 41 of the NERC Act 2006 is supported by a series of Local Biodiversity Action Plans (LBAPs), usually set up on a local authority local authority administrative boundary basis. Each LBAP identifies those habitats and species considered to be most important in that area (usually referred to as priority habitats and species). Commonly, an LBAP will identify a number of habitats and species for which "action plans" have been prepared.

Appendix 4. Designated Sites Map



Appendix 5. Data Search

Grid Ref	Location	Date	Group	Scientific Name	Common Name
SE395021	Wombwell Golf Course pond	23/06/1991	amphibian	<i>Triturus cristatus</i>	Great Crested Newt
SE395021	Wombwell Golf Course pond	23/06/1991	amphibian	<i>Triturus cristatus</i>	Great Crested Newt
SE3800	Elsecar	24/09/2016	amphibian	<i>Bufo bufo</i>	Common Toad
SE3800	Elsecar	09/09/1985	terrestrial mammal	<i>Nyctalus leisleri</i>	Leisler's Bat
SE400011	'BARNSELY MBC'	17/03/2015	terrestrial mammal	<i>Microtus agrestis</i>	Field Vole
SE377013	Jump Primary School	01/06/2015	terrestrial mammal	<i>Apodemus sylvaticus</i>	Wood Mouse
SE3923300951	Barnsley Canal Elsecar to Hemingfield	17/03/2015	terrestrial mammal	<i>Micromys minutus</i>	Harvest Mouse
SE3985401223	Barnsley Canal Elsecar to Hemingfield	17/03/2015	terrestrial mammal	<i>Micromys minutus</i>	Harvest Mouse
SE3986701220	Barnsley Canal Elsecar to Hemingfield	17/03/2015	terrestrial mammal	<i>Micromys minutus</i>	Harvest Mouse
SE3989501222	Barnsley Canal Elsecar to Hemingfield	17/03/2015	terrestrial mammal	<i>Micromys minutus</i>	Harvest Mouse
SE4001901176	Barnsley Canal Elsecar to Hemingfield	17/03/2015	terrestrial mammal	<i>Micromys minutus</i>	Harvest Mouse
SE3802	Worsbrough	21/05/2004	terrestrial mammal	<i>Lepus europaeus</i>	Brown Hare
SE388015	Jump	05/03/2014	terrestrial mammal	<i>Lepus europaeus</i>	Brown Hare
SE3801	'BARNSELY MBC'	29/06/2014	terrestrial mammal	<i>Oryctolagus cuniculus</i>	Rabbit
SE386027	Wombwell	07/03/2014	terrestrial mammal	<i>Oryctolagus cuniculus</i>	Rabbit
SE392022	Former Wombwell Foundry Site	05/04/2016	terrestrial mammal	<i>Oryctolagus cuniculus</i>	Rabbit
SE385015	Jump	05/03/2014	terrestrial mammal	<i>Oryctolagus cuniculus</i>	Rabbit
SE379021	Wombwell Wood LWS	11/04/2011	reptile	<i>Natrix natrix</i>	Grass Snake
SE39190229	Former Wombwell Foundry Site	31/05/2016	reptile	<i>Natrix natrix</i>	Grass Snake
SE390004	'BARNSELY MBC'	12/03/2015	terrestrial mammal	<i>Sciurus carolinensis</i>	Grey Squirrel
SE405015	Brampton pond 2	01/01/2008	amphibian	<i>Rana temporaria</i>	Common Frog
SE377013	St. John's Primary School	22/06/2015	amphibian	<i>Rana temporaria</i>	Common Frog
SE399014	'BARNSELY MBC'	11/11/1984	terrestrial mammal	<i>Erinaceus europaeus</i>	Hedgehog
SE396011	Trans Pennine Trail, Barnsley	21/06/2016	terrestrial mammal	<i>Talpa europaea</i>	Mole
SE3900	'BARNSELY MBC'	09/10/2013	terrestrial mammal	<i>Talpa europaea</i>	Mole
SE395011	'BARNSELY MBC'	12/03/2015	terrestrial mammal	<i>Talpa europaea</i>	Mole
SE392022	Former Wombwell Foundry Site	05/04/2016	terrestrial mammal	<i>Sorex</i>	Sorex

SE399012		31/08/1983	terrestrial mammal	<i>Mustela nivalis</i>	Weasel
SE4001		21/06/1981	terrestrial mammal	<i>Nyctalus</i>	Nyctalus Bat species
SE3800	Elsecar	24/09/2016	amphibian	<i>Triturus vulgaris</i>	Smooth Newt
SE401023	'BARNLEY MBC'	24/06/2004	terrestrial mammal	<i>Pipistrellus pipistrellus</i>	Pipistrelle
SE402014	Barnley Canal Elsecar to Hemingfield	19/10/1999	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE401013	Barnley Canal Elsecar to Hemingfield	19/10/1999	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE392009	Barnley Canal Elsecar to Hemingfield	19/10/1999	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE391006	Barnley Canal Elsecar to Hemingfield	19/10/1999	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE391005	Barnley Canal Elsecar to Hemingfield	19/10/1999	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE400013	Barnley Canal Elsecar to Hemingfield	01/01/2001	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE400013	Barnley Canal Elsecar to Hemingfield	01/01/2000	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE400013	Barnley Canal Elsecar to Hemingfield	01/01/2001	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE400013	Barnley Canal Elsecar to Hemingfield	01/01/2000	terrestrial mammal	<i>Arvicola terrestris</i>	Water Vole
SE380022	Wombwell Wood LWS	16/06/2012	terrestrial mammal	<i>Mustela vison</i>	American Mink
SE395011	'BARNLEY MBC'	12/03/2015	terrestrial mammal	<i>Clethrionomys glareolus</i>	Bank Vole
SE401013	Trans Pennine Trail, Barnley	21/06/2016	terrestrial mammal	<i>Clethrionomys glareolus</i>	Bank Vole

Appendix 6. GCN eDNA Results



Folio No: E1046
Report No: 1
Order No: 06/06
Client: Middleton Ecological
Consultancy
Contact: Peter Middleton
Contact Details: pmiddleton630@btinternet.com
Date: 15/06/2017

TECHNICAL REPORT

ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS

Date sample received at Laboratory: 08/06/2017
Date Reported: 15/06/2017
Matters Affecting Results: None

RESULTS

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
30170	MID/06/06, Cemetery Rd, Hemingfield	SE 39171 01339	Pass	Pass	Pass	Negative	0

SUMMARY

When Great Crested Newts (GCN); *Triturus cristatus* inhabit a pond, they deposit traces of their DNA in the water as evidence of their presence. By sampling the water, we can analyse these small environmental DNA (eDNA) traces to confirm GCN habitation, or establish GCN absence.

The water samples detailed below were submitted for eDNA analysis to the protocol stated in DEFRA WC1067 (Latest Amendments). Details on the sample submission form were used as the unique sample identity.

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