



Ecological Impact Assessment

Trinity Temporary School, Barnsley

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Comments

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1. Introduction

- 1.1. Waterman Infrastructure & Environment Ltd (Waterman) was commissioned by Department for Education to carry out an Ecological Impact Assessment (EcIA) of an area of land known as the Land at Keresforth Close, Barnsley (hereafter referred to as the 'Site').
- 1.2. The Site is approximately 0.95 hectares (ha) in area and centred on Ordnance Survey Grid Reference SE 33347 05515. The Site comprises large recreational field which is bordered by trees, scrub and hedgerow and is set adjacent to the A6133 Broadway and an area of hardstanding used as a carpark and highway as shown on **Figure 1**.
- 1.3. The Site is subject to a planning application for the "*Erection of Temporary School building, associated access road, parking, external play areas and associated works*" (hereafter referred to as the 'Development').
- 1.4. A Preliminary Ecological Appraisal (PEA) of the Site and a wider proposed development area to the north east was undertaken by Waterman in June 2020. The PEA was to inform a planning application for the development of a new school building, car parking and associated hard and soft landscaping. The temporary Development will be in place for two years whilst the permanent replacement school is built. The PEA included an ecological data search and an 'Extended' Phase 1 Habitat Survey, preliminary bat roost assessment at buildings (external only) and at trees (ground based only) and a survey for common invasive species.
- 1.5. This EcIA presents the methods and results of the PEA and an additional site visit undertaken in December 2020, which included a walkover of the Site and a Habitat Suitability Index (HSI) assessment of an off-Site pond.
- 1.6. Based on the findings of the surveys detailed above, this EcIA provides an assessment of any Important Ecological Features (IEFs) present within the Zone of Influence (Zoi) and assesses any potential significant effects that the Development may have on any such features identified. Environmental measures have been incorporated to provide mitigation, compensation and/or enhancement, as required.
- 1.7. The purpose of this EcIA is to:
 - Identify all IEF's present within the identified Zoi and describe any resulting constraints to or significant ecological effects from the Development;
 - Set out the environmental measures in line with the Mitigation Hierarchy¹ to ensure compliance with nature conservation legislation and planning policy (**Appendix A**) and to address any potential significant ecological effects; and
 - To provide an assessment of the significance of any residual effects.

¹ BS 42020:2013 Clause 5.2

2. Methodology

Scope of the Assessment

- 2.1. The scope of this EcIA is based on current guidelines². Consideration is applied to identifying IEFs within the ZoI, as detailed below. Where IEFs are identified, they have been subject to evaluation based on current guidelines as summarised in **Appendix B**.

Zone of Influence and Important Ecological Features

- 2.2. The ZoI is the area(s) over which ecological features may be impacted by the biophysical changes caused by the proposed Development. Based on the scale and nature of the Development, it has been assessed that the ZoI arising from these works is unlikely to be greater than 1km from the Site. Therefore, this distance has been used to collect the ecological data search information. The 'Extended' Phase 1 Habitat survey area comprised primarily the Site. However, adjacent land has been viewed where possible and aerial photography for the area has also been reviewed.
- 2.3. As referenced in industry guidance, IEF's that are anticipated to be affected by the Development have been identified and subject to assessment. In this report, designated sites, habitats and species that fall into the categories in **Table 1** and **Table 2** have been identified as being ecologically important and/or legally protected/controlled and form the scope of data gathering during the data search and Site surveys.

Table 1: Geographical Scale of Important Ecological Feature Categories

Geographical Level of Importance	Category
International	Statutory designated sites: Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites (including candidate SACs and proposed SACs, SPAs and Ramsar sites)
National	Statutory designated sites: Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR); Ancient Woodland; Habitats and species of principal importance for the conservation of biodiversity as listed on Schedule 41 of the NERC Act, 2006, including ecologically important hedgerows under the Hedgerows Regulations 1997; and Red List (using IUNC criteria³) and nationally rare or scarce species and Birds of Conservation Concern (Red List⁴)
County	Local Nature Reserves (LNR); Non-statutory designated wildlife sites: known as Local Wildlife Sites (LWS) in Barnsley; and Local Biodiversity Action Plan (LBAP) habitats and species.

²CIEEM (2018): 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine.' Chartered Institute of Ecology and Environmental Management, Winchester.

³ <http://www.iucnredlist.org/technical-documents/categories-and-criteria>

⁴ https://www.rspb.org.uk/birds-and-wildlife/bird-and-wildlife-guides/bird-guide/status_explained.aspx

Table 2: Legally Protected Species

Legislation (Summarised in Appendix A)
Species included on Schedules II and V of The Conservation of Habitat and Species Regulations 2017 (as amended);
Species included on Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended), excluding species that are only protected in relation to their sale (Section 9[5] and 13[2]); and
Badgers, which are protected under the Protection of Badgers Act 1992.

IEF Assessment

- 2.4. Data gathered as part of this EclA has been used to identify IEF's (i.e. designated sites, habitats and species as listed in **Tables 1** and **2**) that are anticipated to be affected by the Development within the ZoI (up to 1km from the Site).
- 2.5. However, not all the IEFs within the ZoI have the potential to be significantly affected by the Development, or the legislation pertaining to them to be contravened. Therefore, where features are unlikely to be affected by the Development, or where any effects that impact IEFs are unlikely to be significant, for the reasons⁵ listed below, such features have been scoped out of the assessment:
 - No pathway of effect has been identified, for example the feature is sufficient distance from the Site or there is the presence of a barrier between its location and the Site⁶ ; or
 - The feature is of insufficient biodiversity conservation value within the ZoI, due to its quality, extent or population size⁷.
- 2.6. For all remaining features scoped into the assessment, the pathway of effect (e.g. habitat loss, lighting, noise etc.) and potential impact of this on the feature have been identified.

Ecological Data Search

- 2.7. The aim of the ecological data search is to collate existing ecological records for the Site and adjacent areas. Obtaining existing records is an important part of the evaluation process, as it provides additional information that may not be apparent during a site survey.
- 2.8. An ecological data search was undertaken in July 2020, during which all records of protected species, and/or other notable fauna and flora within 1km of the Site, were requested from Barnsley Biological Records Centre (BBRC). Only those since the year 2000 have been considered within the report.
- 2.9. Records of important statutory and non-statutory sites designated as referred to in **Table 1** for their nature conservation value within 1km of the Site were also requested from BBRC and searched for

⁵ Positive or negative effects on ecological features that have the potential to influence a planning decision are considered to be significant

⁶ Whilst the ZoI of potential effects arising from the development is up to 1km from the Site, the ecological ZoI (within which the feature could be affected) for each feature may vary and for some features may be much less, e.g. great crested newts generally move up to a maximum of 500m from a breeding pond and movement can be restricted by barriers such as busy roads and fast flowing rivers

⁷ E.g. whilst a Priority Species such as skylark *Alauda arvensis* or house sparrow *Passer domesticus* is of National importance (**Table 2**), the impact of development on individual or a small population of such a species, which are generally commonly found, is unlikely to be assessed as significant

on the Multi-Agency Geographic Information for the Countryside (MAGIC)⁸. Granted European Protected Species Mitigation (EPSM) licences were also searched for on MAGIC.

- 2.10. In addition, Habitats of Principal Importance (HoPI) and Species of Principal Importance (SoPI) listed under Section 41 (S41) of the NERC Act, as well as Habitat Action Plans (HAPs) and Species Action Plans (SAPs), were consulted to assign an ecological context to the Site.

‘Extended’ Phase 1 Habitat Survey

- 2.11. An ‘Extended’ Phase 1 Habitat Survey of the Site was undertaken on the 22nd and 23rd of June 2020 using the Joint Nature Conservancy Council (JNCC, 2010)⁹ standard ‘Phase 1’ survey technique. The Phase 1 Habitat Survey methodology was ‘Extended’ by undertaking an assessment of the Site to support protected and notable faunal species. All habitat types within the Site were mapped (**Figure 1**) with target notes where appropriate. The survey of the Site was conducted under conditions deemed appropriate for survey, being dry and warm with a starting temperature of 22°C.
- 2.12. Where access allowed, adjacent habitats were also considered to assess the Site within the wider landscape, and to provide information with which to assess possible impacts of the proposed Development.

Invasive Plant Species Assessment

- 2.13. The list of invasive plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) is extensive and these plants are found in a range of different habitats, including aquatic habitats. The ‘Extended’ Phase 1 Habitat Survey checked for the presence of common invasive species including; Japanese knotweed *Reynoutria japonica*, giant knotweed *Fallopia sachalinensis*, hybrid knotweed *Fallopia baldschuanica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera*.

Habitat Suitability Index

- 2.14. Great crested newts (GCN) form meta-populations, whereby they will travel and breed within a network of ponds typically within 500m of each other (Great Crested Newt Conservation Handbook 2001¹⁰). Because of this, any waterbodies within 500m of the Site (**Figure 1**) with suitable terrestrial habitat connectivity were subject to a Habitat Suitability Index (HSI)¹¹ assessment, whereby an indication of the habitat suitability of these ponds to support GCN was made based on ten suitability indices. A score was obtained for each waterbody ranging between 0 – 1; with 0 indicating unsuitable habitat and 1 indicating optimal habitat (**Table 4**).

Table 3: Habitat Suitability Index Scores as a Measure of Pond Suitability for Supporting GCN

HSI Score	Pond Suitability	Chance of GCN Presence
>0.5	Poor	3%
0.5-0.59	Below Average	20%
0.6-0.69	Average	55%

⁸ Magic.defra.gov.uk. (2014). *Magic*. [online] Available at: <http://magic.defra.gov.uk/> [Accessed June 2020].

⁹ JNCC. (2010). *Handbook for Phase 1 Habitat Survey*. Nature Conservancy Council

¹⁰ Langton, T., Beckett, C. And Foster, J. (2001) *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

¹¹ Amphibian and Reptile Groups of the United Kingdom. (2010). ARG UK Advice Note 5 – Great Crested Newt Habitat Suitability Index.

HSI Score	Pond Suitability	Chance of GCN Presence
0.7-0.79	Good	79%
>0.8	Excellent	93%

Constraints and Limitations

- 2.32. All plants were identified through their floristic (where possible) and vegetative characteristics.
- 2.33. The majority of habitats within the Site could be fully accessed and inspected. However, access was limited in places within areas of particularly dense vegetation, and it is possible that instances of invasive non-native plants could have been missed in such areas.
- 2.34. The majority of habitats within the Site could be inspected for signs of badger activity. However, access was limited in places within areas of particularly dense vegetation, and it is possible that signs of badger activity could have been missed in such areas. The limitation has been addressed in Section 5.
- 2.35. All other contractors, designers and the client should be aware that the design recommendations within this report are assessed to be the most effective ecological solution at this stage of the project. No other pre-construction information has been provided, obtained or referred to during the preparation of this report (including, but not limited to, services information, geotechnical reports and ordnance reports). In deciding whether and how to progress with this project, it will be incumbent upon the client, designers and contractors to obtain and refer to relevant pre-construction and maintenance information, as required by the Construction (Design and Management) Regulations to ensure compliance.

3. Results

Data Search

Statutory Designated Sites

- 3.1. The Site is not located within 1km of any statutory designated sites.

Non-Statutory Designated Sites

- 3.2. The Site is not located within 1km of any non-statutory designated sites.

Ancient Woodland

- 3.3. There is no ancient woodland within 1km of the Site.

Protected, BAP and Other Notable Species

- 3.4. Records of legally protected or otherwise notable species of flora and fauna within 1km of the Site were provided by Barnsley Biological Record Centre. A summary of the most significant results of relevance to the Site and only those since the year 2000 are provided in **Table 4** below. Full results can be obtained from the data providers but cannot be presented in this report as a result of copyright. For some records only a four-figure grid reference has been provided by and therefore 'within 1km' has been stated in **Table 4**. It should be noted that the distances provided in **Table 4** below are taken from the central grid reference of the Site and therefore are approximate.

Table 4: Summary of Data Search records of flora and fauna within 1km of the Site

Species	Category of Importance*	Number of Records	Date Range of Records	Location of records relevant to the study area (km)
Great Crested Newt <i>Triturus cristatus</i>	Hab Regs, WCA, S41	3	2002-2019	0.6km south east
Bats common pipistrelle (<i>Pipistrellus pipistrellus</i>)	Hab Regs, WCA	3	2008-2014	Common pipistrelle 0.2km south
Birds Range of bird species within 1km of the Site, Schedule 1 species ¹² of relevance to the Site ¹³ included:	WCA, S41, Red	1090	2000-2020	Within 1km

¹² Birds listed on Schedule 1 Part 1 of the Wildlife and Countryside Act 1981 (as amended) which are afforded protection from disturbance whilst breeding

¹³ Range of data records with a limited grid reference.

Species	Category of Importance*	Number of Records	Date Range of Records	Location of records relevant to the study area (km)
barn owl (<i>Tyto alba</i>)				
brambling (<i>Fringilla montifringilla</i>)				
fieldfare (<i>Turdus pilaris</i>)				
merlin (<i>Falco columbarius</i>)				
Peregrine (<i>Falco peregrinus</i>)				

Hab Regs - Conservation of Species and Habitats Regulations 2017 (as amended)

WCA - The Wildlife and Countryside Act 1981 (as amended)

S41 – Species of Principal Importance under The Natural Environment and Rural Communities Act 2006

Red – Red list criteria (Bird of Conservation Concern)

‘Extended’ Phase 1 Habitat Survey

Habitats

- 3.5. The following habitat types, described in more detail below, were identified on or directly adjacent to the Site during the ‘Extended’ Phase 1 Habitat Survey:
- Species-poor semi-improved grassland;
 - Hardstanding;
 - Dense scrub; and
 - Defunct species-poor hedgerow.
- 3.6. The habitat descriptions given below should be read in conjunction with **Figure 1** and the photographs (Plates) presented in **Appendix C**.

Species-poor semi-improved grassland

- 3.7. The Site is predominately formed by part of a large recreational field comprising species-poor semi-improved grassland (**Plate 1; Appendix C**). The recreational field is used regularly by dogwalkers and appears to be subject to some levels of management and rabbit grazing. Grass verges along the boundaries of the field, which are not subject to management, supported a greater sward length and a richer species diversity. Grass species include cocks-foot *Dactylis glomerata*, annual meadow-grass *Poa annua*, false oat grass *Arrhenatherum elatius*, Yorkshire fog *Holcus Lanatus* and perennial rye grass *Lolium perenne*. Forb species include ragwort *Jacobaea vulgaris*, creeping thistle *Cirsium arvense*, hogweed *Heracleum sphondylium*, cleavers *Galium aparine*, white clover *Trifolium repens*, creeping buttercup *Ranunculus repens*, dandelion *Taraxacum officinale*, common vetch *Vicia sativa*, selfheal *Prunella vulgaris*, ribwort plantain *Plantago lanceolata*, broad-leaved dock *Rumex obtusifolius*, creeping buttercup *Ranunculus repens* and greater plantain *Plantago major*. The habitat often forms a mosaic with scattered and dense scrub.

Hardstanding

- 3.8. A small area of hardstanding used for car parking and small section of the road leading to the car park are located at the east of the Site. In addition, a small section of Keresforth Road is included within the Site boundary at the north of the Site.

Dense scrub

- 3.9. Dense scrub is located adjacent to the north and east of the Site, on the periphery of the semi-improved grassland field. The habitat is dominated by bramble *Rubus fruticosus* with field rose *Rosa arvensis*, elder *Sambucus nigra*, late cotoneaster *Cotoneaster lacteus* and wild cherry and ash saplings are also present.

Defunct species poor hedgerow

- 3.10. One defunct hedgerow is located adjacent to the east of the Site along the eastern boundary of the semi-improved grassland field (**Plate 2; Appendix C**). This hedgerow is subject to some management. Species present include hawthorn *Crataegus monogyna*, bramble, late cotoneaster, elder, sapling ash sapling, willow sp. *Salix sp.*, wild cherry and field rose.
- 3.11. This hedge is not classified as 'ecologically important' under the Hedgerow Regulations 1997.

Protected, BAP and other Notable Fauna and Flora

- 3.12. As a result of the 'Extended' Phase 1 Habitat Survey and a review of the ecological data search, an assessment is made below on the potential of the Site to support:
- Amphibians;
 - Badgers;
 - Bats;
 - Birds;
 - Invertebrates; and
 - Reptiles.
- 3.13. The fauna descriptions provided below should be read in conjunction with **Figure 1** and the photographs (Plates) presented in **Appendix C**.

Amphibians

- 3.14. The BBRC data contained three records of GCN from one location within 1km of the Site. Records are located 0.6km to the south east of the Site (2019). These records are likely to be form a waterbody within Locke Park that is isolated from the Site by the busy A6133 road. In addition, no EPSM licences for GCN have been granted within 1km of the Site.
- 3.15. No waterbodies are present on Site. Two waterbodies are visible on aerial photography from within 500m of the Site. One waterbody identified, located approximately 130m north east of the Site from OS mapping, was found to be dry and no longer present during the 'Extended' Phase 1 Habitat Survey (**TN1; Figure 1 and Plate 3; Appendix C**).
- 3.16. The second waterbody, visible on aerial photography is located approximately 190m north east of the Site within Joseph Locke School (**TN3; Figure 1 and Plate 4; Appendix C**). No access to the waterbody was possible during the 'Extended' Phase 1 Habitat Survey, although access was granted for the Site visit undertaken on 15th December 2020. An indication of the suitability of this

waterbody to support GCN was made using a HSI assessment¹⁴. As a result of the HSI assessment, this waterbody was assessed as being of 'average' suitability to support GCN, as detailed in **Table 5** below. Anecdotal evidence suggested that GCN had never been 'uncovered' in the pond during the regular netting surveys undertaken by the school. During these surveys it was noted that frogs were regularly recorded but no fish or newts had been seen.

- 3.17. No other waterbodies were identified within 500m of the Site.
- 3.18. The species poor semi-improved grassland on Site and scrub and hedgerows adjacent to the Site provide potential foraging and sheltering opportunities for GCN and other amphibian species during the terrestrial phase of their life cycle.

Table 5: Habitat Suitability Index Results

HSI Index	Pond 1
1 – Location	1.0
2 – Pond Area	0.05
3 – Pond Drying	0.90
4 – Water Quality	0.33
5 – Shade	1.0
6 – Water Fowl	1.0
7 – Fish	1.0
8 – Ponds	0.68
9 – Terrestrial Habitat	0.67
10 – Macrophytes	0.90
TOTAL	0.60
CATEGORY	Average

Badgers

- 3.19. The BBRC data contained no records of badger within 1km of the Site.
- 3.20. The Site is considered to offer foraging opportunities for badger in the form of the species poor semi-improved grassland. No evidence of badger activity, such as latrines, foraging evidence or pathways were recorded during either Site visit. Some signs of digging and mammal pathways were recorded at the Site but are considered to be due to the presence of rabbit.

Bats

- 3.21. The BBRC data contained one record of bat roosts within 1 km of the Site). The roost record is a common pipistrelle roost located 1km to the north east of the Site (2014). Bat activity by common pipistrelle has also been recorded within 1km of the Site. No EPSM licences for bats have been granted within 1km of the Site.

¹⁴ Oldham, R.S. et al. (2000). *Evaluating the Suitability of Habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal, 10, 143-155.

- 3.22. A ground-based tree inspection of trees on Site was undertaken during the 'Extended' Phase 1 Habitat undertaken in June 2020 and during the Site visit undertaken on 15th December 2020. One mature sycamore tree south east of the Site (**T1; Figure 1**) was assessed as having moderate potential to support roosting bats, due to the presence of a branch tear wound and access to a potential cavity. All other trees on Site were assessed to have negligible bat potential as a result of the PRA.
- 3.23. Habitats at the Site provide limited foraging opportunities. A review of aerial photography and Defra's MAGIC map shows that the Site is not connected to any notable potential feeding sites.

Birds

- 3.24. The BBRC data contained records of a wide range of bird species within 1km of the Site, reflecting the variety of habitats and designated sites present. These included the following Schedule 1 species of relevance to the Site: barn owl, brambling, fieldfare, merlin and peregrine within 1km of the Site.
- 3.25. Hedgerow and scrub habitat directly adjacent to the Site provide nesting opportunities for common species of birds. The presence of breeding Schedule 1 bird species or notable assemblages of breeding birds is considered unlikely given the extent and age of habitats within the Site, and the high level of disturbance within the semi improved grassland field from dog walkers and runners. Habitats within the Site are unsuitable for any significant populations of birds.

Invertebrates

- 3.26. The BBRC data contained no records of invertebrate within 1km of the Site.
- 3.27. Habitats on or directly adjacent to the Site including hedgerows, scrub habitat and semi-improved grassland provide opportunities for common species of invertebrates. Common invertebrate species may provide a food resource for other protected and/notable species that may be present at the Site such as bats. The Site is not considered to be of significant value for protected and/or notable invertebrate species.

Reptiles

- 3.28. The BBRC data contained no records of reptile within 1km of the Site.
- 3.29. The Site and adjacent habitats offers suitable foraging and basking habitat for reptiles due to the presence of semi-improved grassland, dense scrub and hedgerows forming a mosaic of habitats suitable for common species of reptile such as common lizard *Zootoca vivipara* and grass snake *Natrix natrix*. Additional suitable reptile habitat is located outside the Site boundary within the remaining semi-improved grassland field.

Invasive Plant Species

- 3.30. The BBRC data contained no records of invasive plant species listed under Schedule 9 of the WCA 1981 (as amended).
- 3.31. Small leaved cotoneaster *Cotoneaster horizontalis* was recorded adjacent to the Site within dense scrub on the periphery of the field (**TN2; Figure 1** and **Plate 5; Appendix C**). This species is listed under Schedule 9 of the WCA 1981 (as amended). No invasive species were recorded within the Site boundary itself and so is not discussed further within this report.

4. Assessment

- 4.1. As a result of the ecological surveys undertaken, the Site and ZOI are not considered to support any IEFs that would likely be significantly affected by the proposed Development. All IEFs have therefore been scoped out of further impact assessment because the population or area likely to be affected by the Development is of insufficient size or diversity to be of ecological value, no potential effect pathway between the Development and these features has been identified; and/or contravention of the legislation relating to the feature is unlikely to occur. The rationale for scoping out features is provided in **Table 6** below.

Table 6: Ecological Features Scoped out of the Assessment

Ecological Feature	Rationale
Designated Sites	No direct impacts. Potential indirect impacts (such as pollution of air/water, dust generation, disturbance) are not expected to be significant with the implementation of standard environmental control measures.
Site Habitats	Habitat types are both nationally and locally common. As such no significant impacts are anticipated as a result of the Development.
Great Crested Newt	The records of GCN returned for the data search are likely to be from a waterbody within Locke Park that is isolated from the Site by the busy A6133 road. No waterbodies are present on Site. The only waterbody (that supports water) known to be present within 500m of the Site has been assessed to be of 'average' suitability to support GCN. However anecdotal evidence suggests the presence of GCN in this waterbody is very unlikely. Precautionary mitigation measures are also proposed within Section 5. As such, no significant impacts are anticipated as a result of the Development.
Bats (Roosting)	No habitats of value to roosting bats are present on or directly adjacent to the Site. As such no significant impacts are anticipated as a result of the Development.
Bats (Foraging and Commuting)	The Site provides limited foraging habitat and is considered common and widespread in the wider area. As such, no significant impacts are anticipated as a result of the Development.
Badgers	No evidence of badger activity recorded at the Site. No significant impacts are anticipated as a result of Development.
Birds	Habitats directly adjacent to the Site are likely to offer nesting and foraging opportunities for common bird species. No notable or significant bird populations are anticipated to be present owing to the limited extent of habitats of notable value for birds. No significant impacts are anticipated as a result of Development.
Invertebrates	Any population(s) present at the Site is likely to be of insufficient size or diversity to be of significant ecological value. No significant impacts are anticipated as a result of the Development.
Reptiles	Given the extent of suitable habitats on it is considered that if the Site supports reptiles, it is likely that a low population is present. Mitigation measures detailed within Section 5 below. No significant impacts are anticipated as a result of the Development.

5. Assessment of Effects and Mitigation Measures

- 5.1. The EcIA has not identified any potential IEFs that are anticipated to be significantly affected by the Development. As such the Development is unlikely to result in significant ecological effects and an assessment of effects is therefore not required.
- 5.2. Although ecological features have been scoped out of the assessment (**Table 7**), mitigation measures to ensure the Development meets legal compliance are still required, along with good practice environmental measures. These measures are set out below.

Designated Sites

- 5.3. No designated sites are located within 1km of the Site. In view of this, the proposed works are not anticipated to result in any adverse effects on any designated sites and are therefore not assessed to be an IEF.
- 5.4. The proposed Development will however be subject to best practice measures to minimise any indirect impacts. Such measures will be set out within a Construction Environmental Management Plan (CEMP) in accordance with BS 42020: 2013 (Biodiversity: Code of Practice for Planning and Development).

Habitats

- 5.5. No habitats within the Site are considered to be an IEF. Notwithstanding, mitigation in the form of protection measures will be adhered to during the construction phase of the Development. These measures would be documented within a Construction Environmental Management Plan (CEMP) to ensure legal compliance and that good practice is adopted. The measures include:
 - The protection of adjacent retained trees. Any trees to be retained should be appropriately protected in accordance with BS 5837:2012 - *"Trees in relation to design, demolition and construction – Recommendations"* in line with Local Planning Policy BIO1 Biodiversity and Geodiversity and Policy GI1 Green Infrastructure; and
 - Timing constraints associated with Site clearance works, particularly the clearance of those habitats considered to provide nesting habitat for breeding birds.

Protected and Notable Fauna

Amphibians

- 5.6. Although amphibians including GCN are not assessed to be an IEF, precautionary methods of working (**Appendix D**) would be undertaken to ensure legal compliance.

Badger

- 5.7. No evidence of badger was found at the Site during the 'Extended Phase 1 Habitat Survey undertaken in June 2020 and the Site visit in December 2020 as such no mitigation measures are proposed. Enhancement of the Site for badgers is not considered necessary due to the temporary nature of the Development

Bats

- 5.8. Although bats are not assessed to be an IEF, any light spill from night-time working during the construction phase would be controlled as part measures within the CEMP. During the of the operation period of the temporary a lighting strategy sensitive to wildlife would be prepared to

prevent any unnecessary spill on adjacent commuting / foraging habitats on the periphery of the field.

- 5.9. Enhancement of the Site for bats is not considered necessary due to the temporary nature of the Development.

Birds

- 5.10. Although birds are not assessed to be an IEF (as habitats on Site are considered unlikely to support any significant populations of notable or protected bird species), there are opportunities on / directly adjacent to the Site to support common species of breeding birds. As such the following mitigation measure would be provided to ensure legal compliance:
- Where habitats of value to nesting birds require removal to facilitate the Development, this will be undertaken outside of the breeding bird season (March to August inclusive). However, if works cannot be undertaken outside the breeding bird season an ecologist will inspect any vegetation to be removed. An experienced ecologist will be deployed to carry out an inspection no more than 24 hours prior to the clearance. If an occupied nest is detected, an appropriate buffer zone will be created around the nest, and clearance of this area delayed until the young have fledged.
- 5.11. Enhancement of the Site for birds is not considered necessary due to the temporary nature of the Development.

Reptiles

- 5.12. Although reptiles are not assessed to be an IEF, a population of reptiles may be present on Site and therefore a method statement would be followed as a precautionary measure to ensure legal compliance (**Appendix D**).

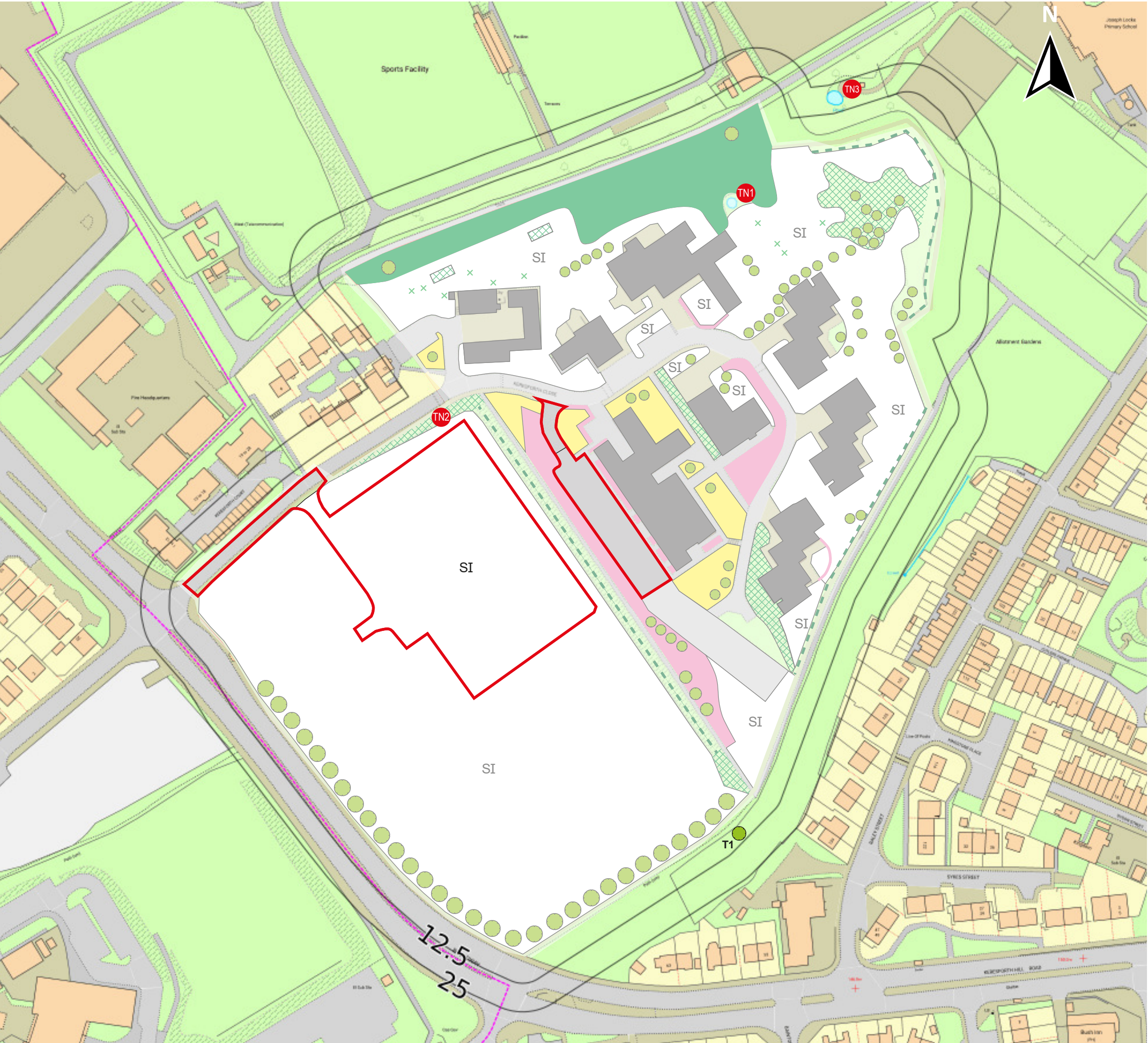
6. Conclusions

- 6.1. As a result of this EcIA, no IEFs are anticipated to be significantly affected by the proposed Development due to insufficient biodiversity conservation value or a lack of an identified pathway for potential effects to occur.
- 6.2. To ensure legal and planning policy compliance, mitigation measures will be provided as part of the scheme.
- 6.3. It should be noted that this EcIA is relevant to the legislation detailed in Section 2 and **Appendix A** at the time of writing. If there are any changes to legislation prior to the Development being completed, the advice within this EcIA may require amending / updating in line with any legislative updates.
- 6.4. If there is a significant period (most LPAs consider this period to be to 18 months) between this EcIA and the Development commencing, the ecological value of the Site may change and the Site should therefore be subject to an update survey.

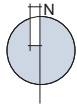
Figures

Figure 1: Habitat Features Plan (ref. WIE17125-105_GR_EC_1B)

Figures



- Site Boundary
- Building
- Hardstanding
- Ornamental Planting
- Amenity Grassland
- SI Poor Semi-improved Grassland
- Dense Scrub
- Semi Natural Broadleaved Woodland
- Defunct Hedge Species Poor
- Hedge
- Scattered Scrub
- Broadleaved Scattered Trees
- TN1 Offsite pond
- TN2 Small leaved cotoneaster
- TN3 Offsite pond



Project Details	WIE17125-105: Trinity Temporary School
Figure Title	Figure 1: Habitat Features Plan
Figure Ref	WIE17125-105_GR_EC_1B
Date	December 2020
File Location	\\s-mr\wiel\projects\wie17125\105\graphics\leclissued figures



APPENDICES

Appendices

Ecological Impact Assessment
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A. Planning Policy and Summarised Legislation

National Planning Policy

National Planning Policy Framework, 2019

The National Planning Policy Framework¹⁵ (NPPF) was published in February 2019. Section 15 (outlined below) of the NPPF, 'Conserving and Enhancing the Natural Environment', replaces Section 11 of the previous NPPF 2012 revision¹⁶ and NPPF 2018¹⁷. However, Government Circular 06/2005¹⁸ - Biodiversity and Geological Conservation: Statutory Obligations and Their Impact within the Planning System, remains valid and is referenced within the NPPF.

The NPPF encourages the planning system to contribute to and enhance the natural and local environment. This should be achieved by:

- *"Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- *maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- *Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate".*

The NPPF also stipulates that Local Planning Authorities (LPAs), when determining planning applications, should apply the following principles:

- *"If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

¹⁵ Ministry of Housing, Communities and Local Government. (2019). *National Planning Policy Framework*.

¹⁶ Department of Communities and Local Government. (2012). *National Planning Policy Framework*.

¹⁷ Ministry of Housing, Communities and Local Government. (2018). *National Planning Policy Framework*.

¹⁸ Department of Communities and Local Government. (2005). *Circular 06/05: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*.

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- *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
- *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”*

National Planning Practice Guidance, 2019

The Government's National Planning Practice Guidance 2016¹⁹, updated in 2019²⁰ (NPPG) is intended to provide guidance to local planning authorities and developers on the implementation of the planning policies set out within the NPPF. The guidance of most relevance to ecology and biodiversity is the Natural Environment Chapter, which explains key issues in implementing policy to protect biodiversity, including local requirements.

Local Planning Policy

Barnsley's Local Plan 2019

The Local Plan sets out how the Council will manage physical development of the borough on behalf of residents and businesses. This includes providing sufficient land in the right places to attract more businesses into the borough and to allow existing businesses to grow. The aim of this is to create more and better jobs to improve earnings and increase opportunities for local residents. It also aims to provide improved housing to meet existing need and the needs of future generations whilst at the same time protecting what is special about the borough. The document contains policies related to biodiversity and are thus of relevance to this report. Specifically, the following policies are considered relevant:

Policy GI1 Green Infrastructure - We will protect, maintain, enhance and create an integrated network of connected and multi-functional Green Infrastructure assets that: Enhances biodiversity and landscape character.

Policy BIO1 Biodiversity and Geodiversity - Development will be expected to conserve and enhance the biodiversity and geological features of the borough by: Protecting and improving habitats, species, sites of ecological value and sites of geological value with particular regard to designated wildlife and geological sites of international, national and local significance, ancient woodland and species and habitats of principal importance identified via Section 41 of the Natural Environment & Rural Communities Act 2006 (for list of the species and habitats of principal importance) and in the Barnsley Biodiversity Action Plan. Maximising biodiversity and geodiversity opportunities in and around new developments. Conserving and enhancing the form, local character and distinctiveness of the boroughs natural assets such as the river corridors of the Don, the Dearne and Dove as natural floodplains and important strategic wildlife corridors. Proposals will be expected to have followed the national mitigation hierarchy (avoid, mitigate, compensate) which is used to evaluate the impacts of a development on biodiversity interest. Protecting ancient and veteran trees where identified. Encouraging provision of biodiversity enhancements. Development which may harm a biodiversity or geological feature or habitat, including ancient woodland and aged or veteran trees found outside ancient woodland, will not be permitted unless effective mitigation and/or compensatory measures can be ensured. Development which adversely effects a

¹⁹ Department for Communities and Local Government. (2016). *National Planning Practice Guidance*. DCLG, London.

²⁰ Department for Communities and Local Government. (2019). *National Planning Practice Guidance*. DCLG, London.

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European Site will not be permitted unless there is no alternative option and there are imperative reasons of overriding public interest (IROPI).

Biodiversity Action Plans

UK Post-2010 Biodiversity Framework

The Environment Departments of all four governments in the UK work together through the Four Countries Biodiversity Group. Together they have agreed, and Ministers have signed, a framework of priorities for UK-level work for the Convention on Biological Diversity. Published on 17 July 2012, the 'UK Post-2010 Biodiversity Framework'²¹ covers the period from 2011 to 2020. This now supersedes the UK Biodiversity Action Plan (UK BAP)²². However, many of the tools developed under UK BAP remain of use, for example, background information about the lists of priority habitats and species. The lists of priority species and habitats agreed under UK BAP still form the basis of much biodiversity work in the countries.

Although the UK Post-2010 Biodiversity Framework does not confer any statutory legal protection, in practice many of the species listed already receive statutory legal protection under UK and / or European legislation. In addition, the majority of Priority national (English) BAP habitats and species are now those listed as Habitats of Principal Importance (HoPI) and Species of Principal Importance (SoPI) in England listed under Section 41 (S41) of the NERC Act 2006. For the purpose of this report, habitats and species listed under S41 of the NERC Act are referred to as having superseded the UK BAP. All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under S41.

Based on the results of the PEA the following SoPIs listed under S41 are considered to be of potential value on and/or immediately adjacent to the Site:

- Bats (all species; SoPI);
- Great crested newt (SoPI);
- Grass snake (SoPI);
- Common lizard (SoPI); and
- Slow-worm (SoPI).

No HoPI are considered to be of potential value on and/or immediately adjacent to the Site.

Local Biodiversity Action Plan

At a local level, the Site is covered by the Barnsley Biodiversity Trust²³ (LBAP). This document identifies habitats and species of importance locally and contains local targets relevant for planning and mitigation.

Based on the results of the PEA a number of LBAP priority species (SAPs) are considered to be of potential value on and/or immediately adjacent to the Site, including:

- Bats (all species²⁴; SAPs);
- Great crested newt (SAPs); and

²¹ JNCC and DEFRA (on behalf of the Four Countries' Biodiversity Group). (2012). *UK Post-2010 Biodiversity Framework*.

²² HMSO. (1994) *Biodiversity The UK Action Plan*.

²³ Barnsley Biodiversity Trust. [online] [Accessed June 2020]. Available at barnsleybiodiversity.org.uk

²⁴ All species that occur within Barnsley

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- Reptiles (all species; SAPs).

Guidance

Biodiversity 2020: A strategy for England's wildlife and ecosystem services

In October 2010, over 190 countries signed an historic global agreement in Nagoya, Japan to take urgent and effective action to halt the alarming global declines in biodiversity. This agreement recognised just how important it is to look after the natural world. It established a new global vision for biodiversity, including a set of strategic goals and targets to drive action. England's response to this agreement was the publication of '*Biodiversity 2020: A strategy for England's wildlife and ecosystem services*'²⁵. The mission for this strategy is:

"to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people."

BS 42020: 2013 Biodiversity: Code of Practice for Planning and Development

The UK commitment to halt overall loss of biodiversity by 2020 in line with the European Biodiversity Strategy and UN Aichi targets²⁶, is passed down to local authorities to implement, mainly through planning policy. To assist organizations affected by these commitments, BSI has published BS 42020 which offers a coherent methodology for biodiversity management.

This British Standard sets out to assist those concerned with ecological issues as they arise through the planning process in matters relating to permitted development and activities involved in the management of land outside the scope of land use planning, which could have site-specific ecological implications.

The standard has been produced with input from a number of organisations including the Chartered Institute of Ecology and Environmental Management (CIEEM) and the Association of Local Government Ecologists (ALGE) and provides:

- Guidance on how to produce clear and concise ecological information to accompany planning applications;
- recommendations on professional ethics, conduct, competence and judgement to give confidence that proposals for biodiversity conservation, and consequent decisions/actions taken, are sound and appropriate; and
- direction on effective decision-making in biodiversity management a framework to demonstrate how biodiversity has been managed during the development process to minimize impact.

Legislation

Specific habitats and species receive legal protection in England under various pieces of legislation, including:

- The Conservation of Habitats and Species Regulations 2017 (as amended)²⁷;
- The Wildlife and Countryside Act (WCA) 1981 (as amended)²⁸;

²⁵ Defra. (2011) *Biodiversity 2020: A strategy for England's wildlife and ecosystem services*.

²⁶ <https://www.cbd.int/sp/targets/>

²⁷ HMSO (2017) The Conservation of Habitats and Species Regulations 2017 (as amended)

²⁸ HMSO (1981) 'Wildlife and Countryside Act 1981 (as amended)'

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- The Natural Environment and Rural Communities Act 2006²⁹;
- The Hedgerows Regulations 1997³⁰;
- The Protection of Badgers Act 1992³¹; and
- Wild Mammals (Protection) Act 1996³²

Further details of legislation in respect of legally protected and notable flora and fauna of relevance to the Site are provided below;

Amphibians

Common species of amphibian (smooth newt *Lissotriton vulgaris*, palmate newt *L. helveticus*, common frog *Rana temporaria* and common toad *Bufo bufo*) are partially protected by the WCA 1981. This prohibits the trade (i.e. sale, barter, exchange, transporting for sale and advertising to sell or to buy) of these species.

Great crested newts are protected under the Conservation of Habitats and Species Regulations 2017 (as amended) and the WCA 1981 (as amended). In summary, taken together, it is an offence to deliberately, intentionally or recklessly:

- Kill, injure or capture a great crested newt;
- Disturb great crested newts in such a way as to be likely significant to affect:
- (i) the ability of any significant group of great crested newts to survive, breed, or rear / nurture their young; or
- (ii) the local distribution of great crested newts;
- Damage or destroy any breeding or resting place used by great crested newts; or
- Obstruct access to any place used by great crested newts for shelter or protection and disturbing great crested newts while occupying such as place.

Badger

The Protection of Badgers Act, 1992 aims to protect badgers *Meles meles* from persecution, rather than being a response to an unfavourable conservation status. As well as protecting the animal itself, the 1992 Act makes the intentional or reckless destruction, damage or obstruction of a badger sett an offence. A sett is defined as “any structure or place which displays signs indicating current use by a badger”. In accordance with Natural England guidance, ‘current use’ is not synonymous with current occupation³³. In addition, the intentional elimination of sufficient foraging area to support a known social group of badgers may, in certain circumstances, be construed as an offence by constituting ‘cruel ill treatment’. Badgers are also protected under the WCA 1981 (as amended).

Bats

In summary, all UK bat species are protected by the Conservation of Habitats and Species Regulations 2017 (as amended) and by the WCA 1981 (as amended). Taken together it is an offence to deliberately, intentionally or recklessly:

²⁹ ODPM (2006) ‘Natural Environment and Rural Communities Act (2006)’

³⁰ ODPM (1997) ‘The Hedgerow Regulations’

³¹ ODPM (1992) ‘The Protection of Badgers Act’

³² HMSO. (1996). *Wild Mammals (Protection) Act*.

³³ Natural England (2009): ‘Guidance on ‘Current Use’ in the definition of a Badger Sett’. Natural England

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- Kill, injure or capture a bat;
- Disturb bats in such a way as to be likely significant to affect
 - (i) the ability of any significant group of bats to survive, breed, or rear / nurture their young; or
 - (ii) the local distribution of that species;
- Damage or destroy any breeding or resting place used by bats; or
- Obstruct access to any place used by bats for shelter or protection and disturbing bats while occupying such as place.

Birds

The level of protection afforded to birds under the law varies from species to species. A few game and pest species may lawfully be hunted and killed, usually under licence, whilst the rarest species are listed on Schedule 1 of the WCA 1981 and are protected by special penalties for offences.

All of the native bird species of Britain are additionally covered by the European Union (EU) Directive on the Conservation of Wild Birds 2009³⁴ ('The Birds Directive'). The Birds Directive applies to all wild birds, their eggs, nests and habitats, and provides for the protection, management and control of all species of birds naturally occurring within each member state of the European Union. It requires the UK to take measures to ensure the preservation of sufficient diversity of habitats to maintain populations of all wild birds at ecologically and scientifically sustainable levels. The requirements of the Birds Directive are implemented in the UK primarily through the WCA 1981 (as amended) and Conservation of Habitats and Species Regulations 2017 (as amended).

Statutory protection is given to all nesting birds in the UK under the WCA 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition to this, for species listed on Schedule 1 of the WCA 1981 (as amended), it is an offence to intentionally or recklessly disturb birds while they are nest building, or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

In addition to statutory protection, the bird species of Britain are also subject to various conservation designations intended to indicate their rarity, population status and conservation priority. These do not have statutory force but may be instrumental in determining local, regional and national planning and development policy. The main categories of designation comprise the British Trust for Ornithology (BTO) 'Species Alert' lists, the Royal Society for the Protection of Birds (RSPB) 'Birds of Conservation Concern' lists and species listed under Section 41 of the NERC Act 2006 and local Biodiversity Action Plans (BAPs).

The BTO Conservation Alert System lists of 'Birds of Conservation Concern' include a 'Red List' for birds of high conservation concern and an 'Amber List' for birds of medium conservation concern. Red List species are those that are globally threatened and Amber List species are those with an unfavourable conservation status in Europe, according to the International Union for Conservation of Nature (IUCN) criteria³⁵. An updated list of 'Red' and 'Amber List' species was published in 2009 (Eaton et al., 2009)³⁶.

³⁴ Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds

³⁵ IUCN (2000): 'The revised Categories and Criteria (IUCN Red List Categories and Criteria version 3.1)'.

³⁶ Eaton et al (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.

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Invertebrates

The majority of invertebrate species are not legally protected. However, a total of seventy-two terrestrial and aquatic invertebrate species are protected under the WCA 1981 (as amended). Certain species of invertebrate are also protected under the Conservation of Species and Habitats Regulations 2017 (as amended).

Reptiles

All native British reptiles are protected in accordance with the WCA 1981 (as amended). There are two levels of protection afforded to reptiles through the WCA 1981 (as amended); these result from different parts of the Act applying to the different species.

In summary, common species of reptile such as common lizard *Zootoca vivipara*, slow worm *Anguis fragilis*, grass snake *Natrix natrix* and adder *Vipera berus* are partially protected under the WCA 1981 (as amended); this prohibits the intentional killing and injuring and trade (i.e. sale, barter, exchange, transporting for sale and advertising to sell or to buy). It is not an offence under the WCA 1981 (as amended) to disturb or possess these species.

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B. EclA Significance Criteria

The scope of this EclA is based on current guidelines⁶. Consideration is applied to identifying IEFs within the Zol is detailed in the methodology section. If IEFs are identified they have been subject to the following significance criteria as summarised below.

Geographic Context

The importance of the identified IEFs, as well as the significance of any likely impacts and their effects, are considered here within a defined geographic context:

- International
- National
- Regional
- County
- Local

The size, conservation status and the quality of features are all relevant in determining their importance and assigning this to the geographic scale.

Characterising Ecological Impacts and their Effects

Where likely impacts are identified to IEFs in connection with the proposed project and within the identified Zol, these are considered and described with reference to the following characteristics:

- Positive or negative (i.e. does the anticipated change accord with nature conservation policies and objectives?)
- Extent (i.e. the spatial area over which the impact or effect may occur)
- Magnitude (i.e. the quantified size, amount, intensity or volume)
- Duration (i.e. the timeframe over which the impact or effect may occur, in both human and ecological terms)
- Frequency and timing (i.e. the number of times an activity occurs, where this is likely to influence the effect)
- Reversibility (i.e. is spontaneous recovery possible or may the effect be counteracted by mitigation?)

An effect is considered to be significant where this either supports or undermines biodiversity conservation objectives for an important ecological feature.

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C. Photographs



Plate 1 – Species Poor Semi-improved grassland habitat at the Site. Photograph shows large recreational field at the Site. Photograph facing north west.



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Plate 2 – Defunct species poor hedge present adjacent to the eastern boundary of the Site. Photograph facing north west.



Plate 3 – Dry remnant pond identified on aerial photography located approximately 130m to the north east of the Site. Photograph facing east



Plate 4: Pond within Joseph Locke School, located approximately 190m north east of the Site.

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Plate 5 – Small leaved cotoneaster located adjacent to the east of the Site (TN2; **Figure 1**). Photograph facing east.

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D. Ecological Method Statement

The detail presented in this method statement is intended to reduce to an acceptable level any potential for injury or mortality to reptiles during the construction period as far as is reasonable practicable.

The evidence collated as part of the EcIA would reasonably demonstrate that GCN are absent from the Development area. However and as a precautionary measure for legal compliance, in the extremely unlikely scenario that GCN are uncovered as part of the reptile strategy detailed below, all vegetation clearance works would cease and the planning authority and/or Natural England would be contacted to determine a suitable way forward.

Toolbox Talk

A toolbox talk will be undertaken to all ground workers employed to undertake the ground clearance works that have the potential to impact both reptiles and as a precautionary approach GCN. Each worker will be required to sign a copy of this toolbox talk, acknowledging their understanding of it. The toolbox talk will cover basic amphibian and reptile ecology, identification, legislation (outlined in **Appendix A**) and what to do in the unlikely event that a reptile or newt is uncovered during the clearance works.

Transporting Equipment and Materials

The hedgerow and scrub to be retained adjacent to the north and eastern boundaries will be fenced off prior to clearance activities to ensure no unnecessary trafficking or clearance occurs.

Machinery to be used in the vegetation clearance comprises light, tracked plant (a Norcar quad tracked utility vehicle with flail attachment or similar).

Pollution Measures

Given the habitats present within and adjacent to the Site, the following measures, in line with the Environment Agencies Pollution Prevention Guidance Notes, will be implemented to minimise any potential impacts from potential pollution incidents during the works as detailed below;

- All machinery to be used to undertake the works would be in good working order to reduce the likelihood of any pollution spills to terrestrial habitats;
- All machinery will be fuelled the night before or that morning before entering the Site;
- If refuelling is necessary, this would be undertaken on existing hardstanding located off Site using the necessary equipment to reduce the potential for spills; and
- In the unlikely event any pollution incidents occur, clean-up strategies would comply with the guidelines.

Timing of Works

Cold weather conditions can immobilise reptiles and newts making them vulnerable to harm during construction works. Similarly, very warm weather may mean that these animals aestivate to avoid desiccation and this also results in them being vulnerable to injury.

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All works will be undertaken during the period when reptiles are active, between 1st April and 31st October and during suitable weather conditions; considered to be a temperature of 9-18°C, with intermittent or hazy sunshine and little or no wind (Froglife, 1999³⁷). All works would be undertaken with a suitably qualified ecologist present.

Vegetation Clearance Works

Suitably experienced personnel and equipment would be contracted by the client to facilitate the vegetation clearance works.

The vegetation clearance works will occur prior to any other Site preparation or construction activities to reduce the likelihood of killing or injuring reptiles and newts which may be present.

Given the abundance of suitable connected off-Site habitat for this species (the surrounding area of semi-improved grassland field and adjacent scrub, hedgerow and tree line) habitat manipulation is considered to be the most suitable method in order to free the construction zone of reptiles.

A suitably qualified ecologist will oversee the vegetation clearance through sensitive strimming of vegetation on Site down to 100mm (to avoid killing or injuring reptiles), working from the north east of the Site to south west of the Site. The suitably qualified will walk in front of the flail, checking for signs of reptiles or amphibians. Once the first cut is complete and the ecologist has inspected the area for reptiles and amphibian or any other animals present, after 24 hours the vegetation will then be taken down to ground level. Any reptiles which have not been encouraged off-Site via strimming works and are instead found would be transferred immediately to suitable adjacent off-Site habitat by the ecologist. If any GCN are found during the works a separate protocol will be followed (see below). The sward will subsequently be maintained at ground level via repeated cuts, prior to the removal of topsoil (see below).

Topsoil Removal

Following vegetation clearance works (and maintenance of a short sward height), topsoil removal will be undertaken. An experienced ecologist will undertake a Site visit prior to topsoil removal to confirm the Site remains unsuitable for reptiles or amphibians following the vegetation clearance works. The ecologist will then supervise the topsoil removal works to prevent the killing or injury of any opportunistic reptiles or amphibians which may be present at the Site, although the presence of such species is considered unlikely following the vegetation clearance works.

All soil and material should be stockpiled in an area of negligible value to reptiles (bare ground or hardstanding located on or off-Site) to prevent producing opportunities for sheltering reptiles or newts.

Destructive Search

Any suitable features of value to reptiles and newts for shelter such as log piles will be sensitively dismantled by hand and stockpiled in an area of negligible value to reptiles (bare ground or hardstanding located on or off-Site).

³⁷ Froglife (1999). Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife Advice Sheet 10. Froglife, Halesworth.

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Protocol if GCN are Encountered

In the event that GCN are encountered during vegetation works, all works would stop immediately, and Natural England and/or the Local Planning Authority contacted to agree a suitable way forward.

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UK and Ireland Office Locations

