Greengage

Brighter strategies
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Client: Keepmoat Homes

Project: Keresforth Road

Report: Ecological Impact Assessment (EcIA)

QUALITY ASSURANCE

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1.0 EXECUTIVE SUMMARY

Greengage Environmental Ltd (Greengage) was commissioned by Keepmoat Homes (Keepmoat) to undertake an Ecological Impact Assessment (EcIA) for the proposed development at land north of Keresforth Road, Dodworth, Barnsley, South Yorkshire located within the Local Authority of Metropolitan Borough of Barnsley, hereafter referred to as 'the site'.

This EcIA has been produced to inform a planning submission for the site to progress proposed residential development. Previous ecological site surveys and reporting by Quants Environmental address a number of comments received from the Barnsley Council Local Planning Authority (LPA) Ecologist.

This EcIA report has been produced in order to address outstanding LPA comments, to establish the ecological value of the site and the potential presence of legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works. This report incorporates the findings of an update Preliminary Ecological Appraisal (PEA).

The site extends to 8.03 ha and comprised other neutral grassland, modified grassland (both with some areas of scattered scrub), bramble scrub, lowland deciduous mixed woodland, a line of trees, a native hedgerow, and a small area of developed land; sealed surface in the form of a road at the south of the site.

Habitats

- There are two statutory designated sites, Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) and Worsborough Country Park Local Nature Reserve (LNR), within a 2km radius of the site considered to be of National value.
- Records from Barnsley Biological Records Centre (BBRC) also identified six non-statutory Local Wildlife Sites (LWS) within 2km of the site and are considered to be of Local value.
- The other neutral grassland, modified grassland, bramble scrub, buildings, native hedgerow and line of trees are of value as habitats at the Site level.
- The lowland mixed deciduous woodland and the other rivers and streams are habitats of value at the Local level.
- Developed land; sealed surface area of was considered to have negligible value

Species

- The site has Negligible value for badgers, great crested newt (GCN), dormouse, barn owl;
- The site has value to the Site level for foraging and roosting bats, common amphibians, reptiles, water vole, otter, breeding and wintering bird species, invertebrates, protected plant species, brown hare and harvest mice; and,
- The site has value to the Local level for foraging, nesting and hibernating hedgehog.

Records of signal crayfish, which is listed as an invasive non-native species on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) (WCA), are present within 2km of the site, and an unidentified cotoneaster species was identified at the site, which, due to being an unidentified species, is to be treated as a Schedule 9 listed species on the WCA as precaution due to possessing characteristics of the Schedule 9 species hollyberry cotoneaster (Cotoneaster bullatus). Cherry laurel was also identified in the woodland which possesses invasive tendencies. It should be noted that due to being listed on Schedule 9 of the WCA, it is an offence to allow these species to spread in the wild and should be disposed of following biosecurity measures.

A Biodiversity Net Gain Assessment (BNGA) has been completed by Greengage[1].

Mitigation, enhancement and compensation measures are outlined within this report, and a Ecological Management Plan (EMP) and Construction Environmental Management Plan (CEMP) will be created to provide further detail.

Specific measures include:

- To minimise any potential impact from the construction works on retained habitats at the site, best practice control methods should be followed and fully described within a Construction Environmental Management Plan (CEMP);
- Mitigation, compensation and enhancement of habitats has been detailed within the Greengage Biodiversity Net Gain Assessment for the site which should be read in conjunction with this EcIA report
- Measures to control the amount and level of artificial lighting will be in place to minimise disturbance on foraging bats, during the construction phase and operational phase of development which will be set out in a CEMP and EMP respectively;
- To increase the availability of roosting habitat, 100% of all new residential dwellings will implement integrated bat boxes into the development design and 10 external bat boxes will be hung on trees in the woodland. These will be set out in an Ecological Management Plan (EMP) or similar;
- Clearance of the scrub and taller grassland that provides nesting opportunities for birds will be undertaken outside of the breeding bird season. Should this not be possible, clearance will only be undertaken after an ecologist conducts a Nesting Bird Check (NBC) of these areas and confirms the likely absence of nesting birds. Operational phase protection measures will be incorporated into an EMP. As compensation for habitat loss, additional nesting opportunities will be provided through the extensive tree planting with foraging habitat and scrub creation in the 'area for biodiversity', including fruit-bearing species. As an enhancement, 100% of the number of residential dwellings will implement integrated bird boxes into the development design, and 10 number of external bird boxes will be hung on trees in the woodland;
- Given the potential for reptiles and amphibians to be present at the site, vegetation clearance of grassland will be undertaken in a staged manner between mid-March and mid-October when reptiles/amphibians are generally considered active and daytime temperatures are above 10°C. A Precautionary Method of Works will be followed, which will be included as part of the CEMP. To

compensate for the loss of habitat, two reptile and amphibian hibernacula will be created in the 'area for biodiversity' in the south of the site;

- A Precautionary Method of Works (PMoW) will be followed for water vole and otter and will be detailed in the CEMP. Prior to any development on the Site, a pre-commencement site walkover should be undertaken no more than 3 months prior to the works being undertaken or a late summer check, as long as this is undertaken within the standard water vole survey season which is typically within April to September to observe for any signs of water vole and otter;
- To compensate for the loss of habitat of value to invertebrates, the biodiversity value of the remaining retained habitat will be enhanced including the incorporation of wildflower grassland areas in the 'area for biodiversity' and other planting areas. Habitat features will also be implemented as enhancement as detailed in an EMP;
- During the site clearance, areas of suitable hedgehog foraging habitat including areas of scrub and taller grassland will be lost. The clearance of these could result in the killing and/or injury of hedgehog. Measures to reduce killing and/or injury of hedgehog during site clearance would be secured through inclusion in a CEMP. To compensate for habitat loss, foraging habitat on site will be incorporate in the form of grassland and shrub planting. Hedgehog shelters will also be provided in the form of three hedgehog nest boxes located within areas of longer vegetation, in undisturbed locations and in the 'area for biodiversity' and hedgehog highways at the bottom of fencing. Detail on these measures would be secured within an EMP; and
- A CEMP will be followed for the removal of invasive species at the site to avoid the unlawful spread in the wild.

2.0 INTRODUCTION

Greengage Environmental Ltd (Greengage) was commissioned by Keepmoat Homes (Keepmoat) to undertake an Ecological Impact Assessment (EcIA) for the proposed development at land north of Keresforth Road, Dodworth, Barnsley, South Yorkshire located within the Local Authority of Metropolitan Borough of Barnsley, hereafter referred to as 'the site'.

This EcIA has been produced to inform a planning submission for the site to progress proposed residential development. Previous ecological site surveys and reporting by Quants Environmental address a number of comments received from the Barnsley Council Local Planning Authority (LPA) Ecologist.

This EcIA report has been produced in order to address outstanding LPA comments and incorporates the findings of an update Preliminary Ecological Appraisal (PEA).

This report assesses the ecological impacts of the proposed development following the approach set out in the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment[2].

N.B. For guidance on the validity of reports/surveys, the CIEEM Advice Note 'On The Ecological Lifespan Of Ecological Reports and Surveys'[3] should be referred to. In summary, most reports/surveys are likely to be considered valid within 12 months of their undertaking. Within 12-18 months, also still likely to be valid but with some exceptions (refer to CIEEM Advice Note for details). Reports/surveys that are between 18 months and 3 years old are likely to require updating and reports/surveys that are more than 3 years old are unlikely to be considered valid and will need to be updated (subject to an assessment by a professional ecologist). This report/survey has been undertaken in May 2024.

2.1 SITE DESCRIPTION

The site extends to approximately 8.03 hectares (ha) and is centred on Ordnance Survey National Grid Reference (OS NGR) SE 32408 05304, OS Co-ordinates: 432408, 405304. The site boundary has been taken from the 'Application site boundary' denoted on the Keepmoat Homes Site Location Plan[4], see Figure A.1.

The site comprised other neutral grassland, modified grassland (both with some areas of scattered scrub), bramble scrub, lowland deciduous mixed woodland, a line of trees, a native hedgerow, a small area of developed land; sealed surface in the form of a road in the south of the site, and a stream (other rivers and streams) which is a tributary of Dodworth Dyke.

The site is situated north of Keresforth Road, and immediately to the east of the site is the slip road to Junction 37 of the M1. A small patch of woodland is present immediately to the south east of the Site. Woodland also surrounds the site on the western boundary, which includes a tributary of Dodworth Dyke which runs through the centre of the site, from under the M1 on the eastern boundary, towards and along the western boundary of the site to it entering the Dodworth Dyke. Residential housing is present at the west of the site beyond the woodland, as well as in the wider surrounding area. Agricultural land is present to the east of the Site, beyond the M1.

Further afield, House Carr Dike is located approximately 820m south of the site, South Yorkshire Forest is approximately 1.3km south west of the site, Bagger Wood Dike is approximately 1.3km south west of the site, National Trust Wentworth Castle is approximately 1.4km south west of the site, Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) is approximately 1.8km south east of the site, Worsborough Country Park Local Nature Reserve (LNR) LNR is approximately 1.9km south east of the site and, Silkstone Golf Club is approximately 1.4km north west of the site. Barnsley town centre is approximately 2.3km east of the site.

2.2 PROPOSED DEVELOPMENT

The 'Masterplan' produced by nineteen47[4], has been used as the basis for information regarding the proposed post-development layout. The proposed development anticipates delivery of a number of new residential dwellings with associated soft landscaping, a Sustainable Drainage System (SuDS) with associated wetland and riparian planting in the east of the site, grassland planting within the site, urban tree planting, woodland creation, and an 'area for biodiversity' which will include grassland, trees and scrub habitat. The locations of the residential dwellings have been given in the 'Masterplan' but numbers of dwellings have not be provided as part of this drawing.

3.0 METHODOLOGY

This EcIA was informed by an update Preliminary Ecological Appraisal (PEA) as detailed below.

3.1 PRELIMINARY ECOLOGICAL APPRAISAL

The PEA was undertaken in accordance with guidance in the UK Habitat Classification System (UKHab)[5] and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal[6], in accordance with BS42020:2013: Biodiversity[7]. The overall assessment consisted of:

- A desk top review of site-specific biological information gained from statutory and non-statutory consultation; and,
- A site walkover incorporating a protected species scoping assessment, UKHab survey and detailed woodland habitat assessment.

The site-specific consultation provided the ecological context for the site survey carried out on the 7th May 2024.

The site boundary is shown at Figure A.1.

Greengage undertook the site walkover during mild and sunny weather conditions. Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded using UKHab primary codes, and supplemented with UKHab secondary codes and target notes on areas or species requiring further commentary. Fauna using the area were recorded where seen and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

3.2 DESK TOP REVIEW

A review of readily available ecological information and other relevant environmental databases (including Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website[8]) was undertaken for the site and extended for up to 2km from the site.

In addition, local biological records received from the Barnsley Biological Records Centre (BBRC) (with data requests operated by Sheffield BRC) were reviewed to identify the location and citations of local non-statutory designated sites and presence of records for notable and protected species. Records received that were dated over 10 years old were considered to be historical.

Previous ecological site surveys and reporting carried out by Quants Environmental as listed below were also assessed:

- Preliminary Ecological Appraisal[9];
- Ecological Impact Assessment[10];
- Additional Ecological Surveys[11]; and,

- Additional Ecological Surveys[12].

Desk study data provided the overall ecological context for the site, to better inform the UKHab survey (site walkover).

In order to inform the assessment of the woodland as part of the UKHab survey, historic mapping and aerial imagery of the site was consulted. The sources of the mapping and aerial imagery were taken from the National Library of Scotland[13] and the National Collection of Aerial Photography[14].

Natural England's Great Crested Newt (GCN) Risk Zone dataset provides district zones for the distribution of GCN (*Triturus cristatus*) and thus the potential for their occurrence and level of impact that development is likely to have on this species. This dataset was consulted to inform the understanding of the potential presence of GCN on the site and within the local area.

3.3 SITE WALKOVER

Habitats

The extent and distribution of different habitats on the site were identified and mapped according to the standard UKHab survey methodologies, supplemented with target notes describing the dominant botanical species and any features of interest. Any protected, notable or rare plant species and invasive/non-native species were also noted. A habitat map, to illustrate the results, is provided at Figure A.1.

Species

The PEA specifically included assessments to identify the potential value for protected, notable and rare faunal species at the site. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas in the context of species known to be present locally and regionally.

The likelihood of occurrence is ranked as follows:

- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from desk top study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and,

- Present - Presence confirmed for the survey itself or recent, confirmed records from information gathered through desk top study.

This is with exception to bats where new guidance from the Bat Conservation Trust (BCT)[15], published in September 2023, ranks bat roosting and foraging suitability on a scale of none, negligible, low, moderate and high (as per Table 4.1 of the guidance). None relates to a site with *'no habitat features suitable for bats'* and negligible relates to a site with no *'obvious habitat features'* likely to be used by bats'. Low relates to a structure with *'one or more potential roost sites that could be used by individual bats opportunistically at any time of the year'* or a site with *'habitats that could be used by a small number of bats'*. Moderate relates to a *'structure with one of more potential roost sites that could be used by bat due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status'* or a site with *'continuous habitat connected to the wider landscape'*. High relates to a *'structure with one of more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time'*, they *'have the potential to support high conservation status roosts'* or a site with *'continuous, high-quality habitat that is well connected to the wider landscape'*.

Badger (*Meles meles*)

The potential for badger to inhabit or forage within the site was assessed. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals foraging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines and paw prints.

Bat Species (*Chiroptera*)

The site walkover was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on site that aimed to identify characteristics suitable for roosting, foraging and commuting bats. In accordance with Bat Conservation Trust's Good Practice Guidelines[16] and methods given in CIEEM's Bat Mitigation Guidelines[17] consideration was given to:

- The availability of access to roosts for bats;
- The presence and suitability of crevices and other places as roosts; and,
- Signs of bat activity or presence.

Definite signs of bat activity were taken to be:

- The bats themselves; and,
- Droppings;

Signs of possible bat presence were taken to be:

- Scratch marks;
- Urine spatter;
- Grease marks or staining; and,

- Moth and butterfly wings.

Features offering potential as roost sites include mature trees with holes, crevices or splits, underground structures including caves, bridges, tunnels and buildings with cracks or gaps serving as possible access points to voids or crevices.

Additionally, natural linear features such as tree lines, hedgerows and river corridors are often considered valuable for commuting and semi-natural habitats such as woodland, meadows and waterbodies can provide important foraging resources. Consideration was given to the presence of these features both immediately within and adjacent to the site.

Great Crested Newt (*Triturus cristatus*)

An assessment was carried out to identify any potential habitats that may support GCN and other native amphibians. The aquatic and terrestrial habitats required generally include small, still waterbodies suitable for breeding; and woodland, scrub or tussocky grassland habitat where there is optimal invertebrate prey potential.

Reptiles

The potential for reptile species on the site was assessed during the site walkover. Native reptile species include grass snake (*Natrix helvetica*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizards (*Lacerta vivipara* and *L. agilis*) and slow worm (*Anguis fragilis*). These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or, in the case of grass snake, waterbody margins. Suitable well drained and frost-free areas are needed so they can survive the winter.

Dormouse (*Muscardinus avellanarius*)

During the site walkover the potential for dormouse to be present on the site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as honeysuckle (Lonicera periclymenum) and hazel (Corylus avellana), in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

Water Vole (*Arvicola amphibius*)

Water vole potential was assessed during the site walkover, identified by the presence of flowing water courses, e.g. ditches, rivers and dykes and waterbodies, e.g. lakes. Holes and runs along the banks, latrines, footprints or piles of food were noted where encountered.

Otter (*Lutra lutra*)

The presence of watercourses and waterbodies with good cover and potential holt (den) sites was noted during the site walkover. This included recording any evidence of spraint, footprints or food remains, where present.

Birds

During the site walkover, the potential for breeding, wintering and migratory birds was assessed. In particular, this includes areas of trees, scrub, open grassland and woodland that could support nests for common or notable species.

Invertebrates

As part of the site walkover the quality of invertebrate habitat and the potential for notable terrestrial and aquatic invertebrate species was considered. Habitats typically suitable for invertebrates include wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

Notable Species

Where consultation and desk study indicates the presence of Biodiversity Action Plan (BAP) priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the site to support these species.

3.4 ECOLOGICAL IMPACT ASSESSMENT

This EcIA was undertaken in line with guidance from CIEEM's 'Guidelines for Ecological Impact Assessment'[2] and in accordance with BS42020:2013 Biodiversity[18].

Criteria for Assessing Conservation Value of Ecological Receptors

The approach to ecological evaluation advocated by the CIEEM guidelines involves professional judgement, based on available guidance and information, together with advice from experts who know the locality of the project and/or the distribution and status of the species or features that are being considered. The analysis aims to assign value to an ecological feature with reference to a defined geographical scale, i.e.:

- International;
- National;
- Regional;
- Metropolitan/County; and,
- Local/Site.

Sites which are subject to statutory and/or non-statutory designation may be readily assigned a value on this scale, for example:

- Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's) are internationally important sites;
- Sites of Special Scientific Interest (SSSI) are nationally important sites; and,
- Sites of Importance for Nature Conservation (SINC) are considered to be of Metropolitan value.

Where an area has more than one designation, the highest of these has been used to assign value. Features of a site that are not the reasons for its designation(s) are assessed and valued according to their intrinsic value.

In assigning value to species, reference to a species' geographical distribution, population status (e.g. widespread, common, rare) and trends (e.g. declining, stable) has also been considered. A species that is rare and declining may be assigned a higher level of importance than one that is rare but known to be stable. Species which have a significant proportion of their European population in the UK may also be highly valued.

Assessment of Nature and Significance of Ecological Impacts

Impact Identification

The sensitivity (and recoverability) of receptors to an impact has been identified, as far as current knowledge allows. Generally, this is, by necessity, a qualitative assessment based on published literature and best available scientific information.

Impact Characterisation

Impacts were characterised by reference to the following terms and definitions where appropriate:

- Positive (a change that improves the quality of the environment);
- Negative (a change which reduces the quality of the environment);
- Extent (the spatial or geographical area over which the impact/effect may occur);
- Magnitude (size, amount, intensity and volume);
- Duration (should be defined in relation to ecological characteristics (such as species' lifecycle) as well as human timeframes);
- Timing (timing of an activity or change may result in an impact if it coincides with critical life-stages or seasons e.g. bird nesting season);
- Frequency (the number of times an activity occurs will influence the resulting effect); and,
- Reversibility (whether impact is permanent or reversible).

Consideration was given to the potential for impacts to interact with other impacts (either arising from the proposed development or a different (external) source), thus producing a cumulative effect (often of greater magnitude).

Significance

For the purpose of the assessment within this report, impacts are considered significant if they either support or undermine biodiversity conservation objectives for 'important ecological features' or for biodiversity in general.

Residual Impacts

The available means to avoid, minimise or mitigate for negative impacts have been identified. Then, subject to their acceptability, these means have been incorporated in the design of the proposal, so that the final assessment of impact identified impacts that would be left. The consequences for development control, policy guidance and legislative compliance were then identified from the predicted residual impacts.

Assessment of Potential Impacts/Effects

The following table sets out the primary terms used to describe impacts in each of the sections below covering impacts on ecology.

Table 3.1 Terms for Describing Ecological Impacts/ Effects

Severity	Periodicity	Extent
• Positive • Negative	• Temporary • Short-term • Medium-term • Long-term • Permanent - no recovery to previous state within lifespan of project.	• Local/Site • Metropolitan/County • Regional • National - National population context • International - international context

Further to the terms set out in the table above, 'Negligible' has been utilised where no significant change to existing nature conservation value would arise from the proposed development.

Zone of Influence (ZoI)

Given the nature of the proposals, there are two ZoI's:

- Statutory and non-statutory designated sites and habitats within 2km of the site; and,
- Protected and notable species within 2km of the site.

The ZoI for designated sites has been set at 2km, due to the proximity to the site, consideration to construction and operational impacts and presence of connectivity.

The ZoI for protected species has been set at 2km, due to the extent that bats and birds can travel to forage and commute. Therefore, developments have the potential to impact the behaviours of species travelling to the site from these distances.

3.5 COMPETENCIES

Chloe Peace, Consultant, has a BSc (Hons) in Zoology and is a Qualifying member of CIEEM. Chloe has two seasons of experience in ecological survey and assessment in consultancy. Her experience that spans the aquatic and terrestrial environments, with particular interest in Biodiversity Net Gain (BNG), natural capital, habitat management and conservation, and ornithology.

Francesca Thorley, Senior, has an undergraduate degree in Geography (BSc Hons) and a Master's degree in Biodiversity and Conservation (MSc), holds a Natural England Great Crested Newt Licence, is Certified to undertake River Condition Assessments and is an Associated Member of CIEEM. Francesca has over 6 years' experience in the commercial sector.

Jennie Caddick, Associate, holds a BSc (Hons) in Ecology and full CIEEM membership. She has 20 years consultancy experience working for a varied client base, with a focus on complex schemes where requirement for consultation and bespoke surveying has been used. Jennie holds Natural England

survey licences for bats (Class 2), GCN, water vole and white-clawed crayfish. In addition, she has also held mitigation licences for otter.

This report was written by Chloe Peace, reviewed by Francesca Thorley and verified by Jennie Caddick who confirms in writing (see QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and,
- Avoids invalid, biased and exaggerated statements.

3.6 CONSTRAINTS

The PEA was undertaken during an optimal time of year during ideal conditions by a suitably qualified ecologist.

Some areas of the woodland were inaccessible due to being steep and following recent rainfall causing a slippery surface which was avoided due to health and safety concerns. Despite this, the assessment of the remainder of the woodland is deemed appropriate and acceptable to make a judgement on the habitat as a whole and therefore the restricted access was not considered a constraint to the survey.

No significant constraints that stand to impact conclusions drawn in this report therefore presented themselves.

4.0 BASELINE CONDITIONS

4.1 NATURE CONSERVATION DESIGNATIONS

Statutory Designations

Consultations with the local biological record centre BBRC and the MAGIC dataset have confirmed that there are no statutory designation within the site boundary.

There are, however, two statutory designated sites within a 2km radius of the site. These comprise Dearne Valley Wetlands Site of Special Scientific Interest (SSSI), located approximately 1.8km south east of the site, and Worsborough Country Park Local Nature Reserve (LNR), located approximately 1.9km south east of the site. The SSSI and LNR are considered to be of **National** value.

Table 4.1 below gives the locations and descriptions of a selection of the statutory designations.

Table 4.1 Statutory Designated Sites within Search Radius

Site Name	Approximate Distance and Direction from the site	Description
Statutory Designations		
Dearne Valley Wetlands SSSI	1.8km south east	Dearne Valley Wetlands SSSI comprises a network of 22 wetland, scrub and woodland areas that extends through the catchment of the River Dearne. The site lies within the local authority areas of Barnsley, Rotherham and Doncaster and is within the Dearne Valley Green Heart Nature Improvement Area. Dearne Valley Wetlands SSSI is of special interest for the following nationally important features: • Breeding gadwall (*Mareca strepera*), shoveler (*Spatula clypeata*), garganey (*Spatula querquedula*), pochard (*Aythya ferina*), bittern (*Botaurus stellaris*), black- headed gull (*Chroicocephalus ridibundus*) and willow tit (*Poecile montanus klienschmidti*); • Non-breeding gadwall and shoveler; and, • Diverse assemblages of breeding birds of lowland damp grasslands, lowland scrub and a mixed assemblage of lowland open waters and their margins and lowland fen.
Worsborough Country Park LNR	1.9km south east	There is no citation available for this site, however, it is noted that the LNR has good habitat for waterfowl bird species, with habitats including; reservoir, willow carr, managed grassland/meadowland, reed bed and woodland.

Non-statutory Designations

Records from BBRC identified six non-statutory Local Wildlife Sites (LWS) within 2km of the site. LWSs are recognised by LPAs as important wildlife sites and are considered to be of **Local** value.

Table 4.2 below gives the locations and descriptions of the local designations within 2km of the site.

Table 4.2 Non-Statutory Designated Sites within Search Radius

Site Name	Approximate Distance and Direction from the site	Description
Non-Statutory		
Faithwaite and Lowe Wood LWS	1.4km south west	This is a large site with a diverse array of habitats stretching between two former collieries that lie to the north-west of the Wentworth castle estate in the broad shallow valley of the House Carr Dike and its tributaries. Land-ownership is quite complex and survey was carried out mainly from the public footpath system. Important species at the LWS include; bluebell (*Hyacinthoides non-scripta*), Dog's mercury (*Mercurialis perennis*), yellow archangel (*Lamiastrum galeobdolon*), remote sedge (*Carex remota*), yellow pimpernel (*Lysimachia nemorum*), greater stitchwort (*Stellaria holostea*), wood sorrel (*Oxalis acetosella*), bush vetch (*Vicia sepium*) are all present on the LWS and are considered as ancient woodland indicator species in South Yorkshire. Great crested newt occurs on the LWS, as well as a number of nationally notable invertebrate species. Breeding UKBAP bird species are dunnock (*Prunella modularis*), bullfinch (*Pyrrhula pyrrhula*) and song thrush (*Turdus philomelos*).
Stainborough Park LWS	1.5km south west	This site comprises a large part of the historic parkland and ornamental gardens of the Wentworth Castle estate. Important species at this LWS include; Ancient woodland indicator species, sessile oak (*Quercus petraea*) and sweet woodruff (*Galium odoratum*) were recorded in the western plantations in 2010. European hares (*Lepus europaeus*) were seen using the site and there are numerous mature/veteran trees. Fallow (*Dama dama*) and red deer (*Cervus elaphus*)

Site Name	Approximate Distance and Direction from the site	Description
		graze grasslands. This site has rich herptile fauna, with records for grass snake, viviparous lizard great crested newt and other amphibians. Brown long-eared bats (*Plecotus auritus*) and Daubenton's bats (*Myotis daubentonii*) are reported to roost in some of the outlying buildings and to forage over the site. Leisler's bats (*Nyctalus leisleri*) are also recorded foraging and possibly roosting in some of the parkland's veteran trees. Recorded UKBAP breeding bird species include yellowhammer (*Emberiza citrinella*), reed bunting (*Emberiza schoeniclus*), spotted flycatcher (*Muscicapa striata*), willow tit, dunnock (*Prunella modularis*) and song thrush.
Red Brook Pastures LWS	1.5km north east	This site lies on the western side of the settlement of Gawber and to the east of the course of Red Brook. It consists of two fields lying north and south of the Church Lane (lane leading into Gawber from the west). Each field possess clearly visible traces of ridge and furrow. Important species at this LWS include; bluebell and wood millet (*Milium effusum*) were found on site, which are considered to be ancient woodland indicator species for South Yorkshire. Other locally important species are devilsbit scabious (*Succisapratensis*) and quaking grass (*Briza media*).
Hugset Wood LWS	1.8km north west	Hugset Wood lies between the settlements of Silkstone, Higham and Dodsworth, on the western side of Barnsley. Occupying a low hill between the valley of Silkstone Beck and the M1 motorway, to the east, most of this site is classed as replanted ancient woodland. The eastern and western flanks are on the register of ancient and semi-natural woodlands. Until the 1930s the wooded area extended further to the west, up to Low Mill on the banks of Silkstone Beck, at its westernmost extent. Important species at the LWS include; Dog's mercury, wood millet, yellow archangel, sessile oak, remote sedge, wood horsetail (*Equisetum sylvaticum*), bluebell, wood sorrel, greater stitchwort, wood speedwell (*Veronica montana*), bush vetch, wood melick (*Melica uniflora*), yellow pimpernel are all

Site Name	Approximate Distance and Direction from the site	Description
		found on this site and are considered to be ancient woodland indicator species in South Yorkshire. UKBAP breeding bird species include willow tit, dunnock, bullfinch and song thrush. Additionally, white-letter hairstreak (Satyrium w-album), a UKBAP species have colonised the wood and this is probably the largest colony in Barnsley.
Kendal Green Scrub LWS	1.8km south east	The LWS is located to the west of Worsbrough and northwest of Worsbrough Reservoir. A dismantled railway, now forming part of the Trans-Pennine Trail, is immediately adjacent to the site on the northern side and Haverlands Lane is adjacent to the site in the south. The M1 (Junction 37/38) is to the west of the site. Important species at the LWS include; Four species of orchid are found on the grassland habitat of the site with bee orchid (*Ophrys apifera*) and pyramidal orchid (*Anacamptis pyramidalis*) being of local significance. Bush vetch and dog's mercury are present beneath the tree line on the southern boundary. These are considered to be ancient woodland indicator species in South Yorkshire. 48 species of bird have been recorded in the area, including a number of nationally important UKBAP species such as yellowhammer, linnet (*Carduelis cannabina*) and song thrush.
Silkstone Fall Wood LWS	1.9km west	This site lies to the west of Dodworth and the M1, occupying an area that is on the register of replanted ancient woodland sites. The site slopes from the southeast to the northwest, from about 150m above sea level to around 90m above sea level in the valley of Silkstone Beck on its northwest edge. The site is crossed in the north by the A628 Barnsley Road and in the south by the railway between Penistone and Barnsley. Important species at the LWS include; Remote sedge , bluebell, wood millet, dog's mercury, sessile oak, greater stitchwort, wood speedwell, wood melick, wood sorrel, yellow archangel and yellow pimpernel are all present on this site. These ancient woodland indicator species for South Yorkshire. UKBAP breeding bird species include willow tit,

Site Name	Approximate Distance and Direction from the site	Description
		dunnock, bullfinch and song thrush. Lesser spotted woodpecker (*Dendrocopos minor*) has been recorded a few years ago and may still breed in the area and is overlooked. UKBAP species European/brown hare was noted in the south of the site during a 2010 survey.

Biodiversity Action Plans

UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.

The UK BAP was succeeded in 2012 by the UK-Post 2012 Biodiversity Framework which informed the creation of the Biodiversity 2020 strategy; England's contribution towards the UK's commitments under the United Nations Convention of Biological Diversity.

Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

The following UK BAP priority habitats were present at site or in the immediate vicinity:

- Deciduous woodland, present in the centre of the site, immediately west of the site and immediately south east of the site.

Further afield, the following UKBAP priority habitats were present within 2km of the site:

- Traditional orchards, with the closest area being approximately 840m south east of the site;
- Woodpasture and parkland, with the closest area being 1km east of the site;
- Ancient woodland, with the closest area at 1.1km south east of the site; and,
- Open mosaic habitat, with the closest area at 1.1km north east of the site.

Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

Further details of relevant policy and legislation is provided in Appendix B.

Barnsley BAP[19]

Barnsley BAP sets out action plans for priority habitats and species within Barnsley within Habitat Action Plans (HAPs) and Species Action Plans (SAPs). The following HAPs and SAPs are relevant to this assessment:

- Hedgehog SAP;
- Bats SAP;
- Water vole SAP;
- Otter SAP;
- Kestrel SAP;
- Barn owl SAP;
- Great crested newt SAP;
- White-clawed crayfish SAP;
- Bluebell SAP;
- Lowland mixed deciduous woodland HAP;
- Rivers HAP; and,
- Hedgerows HAP.

The South Yorkshire Nature Recovery Strategy would also be important to the site, however is not yet available at the time of writing.

Species Records

The information provided in the biological data search from BBRC identified records of a number of protected,BAP priority species, and invasive non-native species within 2km search radius of the site. Among others, these include the following species of relevance to the site:

- Bat species including, Leisler's bat, unidentified bat species, Natterer's bat (*Myotis nattereri*), noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and whiskered/Brandt's bat (*Myotis mystacinus/brandtii*);
- Other mammals including, badger, brown hare, hedgehog (*Erinaceus europaeus*) and otter;
- Amphibians including, great crested newt, common frog (*Rana temporaria*), smooth newt (*Triturus vulgaris*), palmate newt (*Triturus helveticus*) and common toad (*Bufo bufo*);
- Reptiles including, adder, common lizard and grass snake;
- Birds including, barn owl (*Tyto alba*), blackbird (*Turdus merula*), blackcap (*Sylvia atricapilla*), blue tit (*Cyanistes caeruleus*), brambling (*Fringilla montifringilla*), bullfinch, buzzard (*Buteo buteo*), Canada goose (*Branta canadensis*), carrion crow (*Corvus corone*), chaffinch (*Fringilla coelebs*), chiffchaff (*Phylloscopus collybita*), coal tit (*Parus ater*), collared dove (*Streptopelia decaocto*), cuckoo (*Cuculus*

canorus), dunnock, fieldfare (*Turdus pilaris*), garden warbler (*Sylvia borin*), goldcrest (*Regulus regulus*), goldfinch (*Carduelis carduelis*), grasshopper warbler (*Locustella naevia*), great spotted woodpecker (*Dendrocopos major*), great tit (*Parus major*), green woodpecker (*Picus viridis*), greenfinch (*Chloris chloris*), grey wagtail (*Motacilla cinerea*), greylag goose (*Anser anser*), hawfinch (*Coccothraustes cocothraustes*), house martin (*Delichon urbicum*), house sparrow (*Passer domesticus*), jackdaw (*Corvus monedula*), jay (*Garrulus glandarius*), kestrel (*Falco tinnunculus*), kingfisher (*Alcedo atthis*), lapwing (*Vanellus vanellus*), lesser redpoll (*Acanthis cabaret*), lesser spotted woodpecker, lesser whitethroat (*Sylvia curruca*), linnet, little owl (*Athene noctua*), long-tailed tit (*Aegithalos caudatus*), magpie (*Pica pica*), mallard (*Anas platyrynchos*), meadow pipit (*Anthus pratensis*), mistle thrush (*Turdus viscivorus*), nuthatch (*Sitta europaea*), pheasant (*Phasianus colchicus*), pied flycatcher (*Ficedula hypoleuca*), pied wagtail (*Motacilla alba subsp. Yarrellii*), raven (*Corax corax*), redpoll (*Acanthis flammea*), redwing (*Turdus iliacus*), robin (*Erithacus rubecula*), rock dove (*Columba livia*), rook (*Corvus frugilegus*), siskin (*Spinus spinus*), skylark (*Alauda arvensis*), song thrush, sparrowhawk (*Accipiter nisus*), spotted flycatcher, starling (*Sturnus vulgaris*), stock dove (*Columba oenas*), swallow (*Hirundo rustica*), swift (*Apus apus*), tawny owl (*Strix aluco*), treecreeper (*Certhia familiaris*), whitethroat (*Sylvia communis*), willow tit, willow warbler (*Phylloscopus trochilus*), woodcock (*Scolopax rusticola*), woodpigeon (*Columba palumbus*) and wren (*Troglodytes troglodytes*);

- Invertebrates on the UKBAP including white letter hairstreak (which is also protected under Schedule 5 of the Wildlife and Countryside Act (as amended) 1981 (WCA)), small heath butterfly (*Coenonympha pamphilus*), wall butterfly (*Lasiommata megera*), dingy skipper (*Erynnis tages*), latticed heath moth (*Semiothisa clathrata*), cinnabar moth (*Tyria jacobaeae*), and shaded broad-bar (*Scotopteryx chenopodiata*); and,
- Invasive non-native species included on Schedule 9 of the WCA American mink (*Mustela vison*) and American signal crayfish (*Pacifastacus leniusculus*).

The species listed above are primarily those known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in the following chapter.

4.2 DETAILED DESCRIPTION OF SITE: HABITATS

The habitats presented across the site consist of the following UKHab categories, as mapped at Figure A.1:

- Grassland - other neutral grassland (g3c) [10 - scattered scrub, 15 - rushes dominant, 16 - tall forbs];
- Grassland - modified grassland (g4) [103 - horse-grazed, 10, 847 - introduced shrub];
- Woodland and forest - other lowland mixed deciduous woodland (w1f7) [30 - semi-natural woodland, 213 - complex woody structure, 502 - seasonally wet, 510 - bare ground, 521 - unmanaged];

- Heathland and shrub - bramble scrub (h3d) [32 - scattered trees];
- Urban - developed land; sealed surface (u1b);
- Urban - developed land; sealed surface - buildings (u1b5);
- Heathland and shrub - native hedgerow (h1a) [11 - hedgerow with trees],
- Woodland and forest - other broadleaved woodland (w1g) [33 - line of trees]; and
- Other rivers and streams (r2b).

Other Neutral Grassland

Five areas of other neutral grassland were present across the site. A general list of species characterising the habitat areas are included and described below in relation to each allocated parcel reference number (see Figure A.1).

The largest area of other neutral grassland was present in the north of the site, split into three parcels due to the variation in species composition (Parcels 1- 3 below).

Parcel Reference 1

Plate 4.1 Facing north east of parcel reference 1

Parcel reference 1 was located at the very north west of grassland in the north of the site and included varying sward heights with scattered scrub [10] across the area. Of the grasses and herbaceous vegetation, species included; frequent Yorkshire fog (*Holcus lanatus*) and false oat (*Arrhenatherum elatius*), occasional red fescue (*Festuca rubra*), annual meadow grass (*Poa annua*), dandelion (*Taraxacum sp*), geranium (*Geranium sp*), and common hogweed (*Heracleum sphondylium*), and rare common spotted-orchid (*Dactylorhiza fuchsii*). Of the scattered scrub vegetation, species included; abundant silver birch (*Betula pendula*), frequent ash (*Fraxinus excelsior*), occasional field maple (*Acer campestre*), goat willow (*Salix caprea*) and hawthorn (*Crataegus monogyna*) and rare field rose (*Rosa arvensis*).

Parcel Reference 2

Plate 4.2 Facing south of parcel reference 2

Parcel reference 2 was present in the centre of the large grassland area in the north of the site. As for parcel reference 1, this included grassland and scattered scrub [10], however rushes were dominant [15] in this parcel. Sward height of vegetation was varied. Of the grasses and herbaceous vegetation, species included; abundant soft rush (*Juncus effusus*), occasional glaucous sedge (*Carex flacca*) and tufted hair grass (*Deschampsia cespitosa*) and rare vetchling species (*Vicia sp*). Of the scattered scrub, species included; abundant silver birch, frequent goat willow, occasional ash and alder (*Alnus glutinosa*), and rare honeysuckle (*Lonicera periclymenum*) and hawthorn.

Parcel Reference 3

Plate 4.3 Facing north west of parcel reference 3

At the south east of the northern area of grassland, parcel reference 3 was less diverse in species numbers, but still included grassland and some scattered scrub species. Sward height of vegetation was varied. Species observed here included; abundant bramble scrub (*Rubus fruticosus agg.*), frequent red fescue, occasional Yorkshire fog, false oat grass and pale willowherb (*Epilobium roseum*), and rare vetchling species, prickly lettuce (*Lactuca serriola*) and field rose.

Parcel Reference 4

Plate 4.4 Facing north of parcel reference 4

To the south of the centre of the site, another area of other neutral grassland was present. Sward height was more variable across this area consisting of grassland and herbaceous vegetation. Species included; abundant Yorkshire fog and red fescue, frequent perennial rye grass (*Lolium perenne*) creeping buttercup (*Ranunculus repens*), occasional common chickweed (*Stellaria media*), geranium, common knapweed (*Centaurea nigra*), pale willowherb, Cock's foot (*Dactylus glomerata*), and rare vetchling species and spear thistle (*Cirsium vulgare*).

Parcel Reference 5

Plate 4.5 Facing south west of parcel reference 5

A smaller pocket of other neutral grassland was present in the south west of the site, which included tall forbs [16]. Species observed included; abundant Yorkshire fog and cock's foot, frequent smooth meadow grass (*Poa pratensis*), perennial rye grass, red fescue, pale willowherb, meadow foxtail (*Alopecurus pratensis*) and common nettle (*Urtica dioica*), occasional cow parsley (*Anthriscus sylvestris*), rosebay willowherb (*Chamaenerion angustifolium*) and creeping thistle (*Cirsium arvense*), and rare

common hogweed, yarrow (*Achillea millefoilum*), cleavers (*Galium aparine*) and brassica species (*Brassica sp.*).

Due to the location of the site and the presence of similar habitat in the wider local area, as identified on the MAGIC Living England Habitat Map, the other neutral grassland on the site is considered to have **Site** value as a habitat. Furthermore, there are indicators of suboptimal condition present within the habitat, including common nettle, creeping thistle, and creeping buttercup, and thus the quality of this habitat on the site is likely replicated or of better quality elsewhere in the local area.

Modified Grassland

Parcel Reference 6

Plate 4.6 Facing west of northern section of parcel reference 6

Plate 4.7 Facing south of southern section of parcel reference 6

In the south east of the site a horse-grazed [103] field of modified grassland was present which had a consistently very short sward height. Species observed included; dominant perennial rye grass, frequent creeping buttercup, and occasional Yorkshire fog, Cock's foot, white clover (*Trifolium repens*) and thyme-leaved speedwell (*Veronica chamaedrys*).

The southern section of parcel reference 6 included horse stables and storage containers (see parcel references 13- 15).

Parcel Reference 7

Plate 4.8 Facing east of parcel reference 7

In the south west of the site a small area of modified grassland was present which appeared to be heavily managed to retain the grassland at a short sward. Scattered scrub [10] was also present here, including; rare rowan (*Sorbus aucuparia*) and hawthorn. Species observed included; frequent perennial rye grass, red fescue, Yorkshire fog, and occasional dandelion, creeping buttercup and white clover.

Parcel Reference 8

Plate 4.9 Facing south of parcel reference 8

Separated by a road, this parcel of modified grassland included the same species as detailed for parcel reference 7 (above) as well as some unidentified non-native introduced shrub [847] species.

Similar to the other neutral grassland habitat, due to the location of the site, the presence of similar habitat in the wider local area, as identified on the MAGIC Living England Habitat Map, and indicators of suboptimal condition present within the habitat, including creeping buttercup and white clover, the

quality of the modified grassland on the site is likely replicated or of better quality elsewhere in the local area. Therefore, modified grassland on site is considered to have **Site** value as a habitat.

Other Lowland Mixed Deciduous Woodland

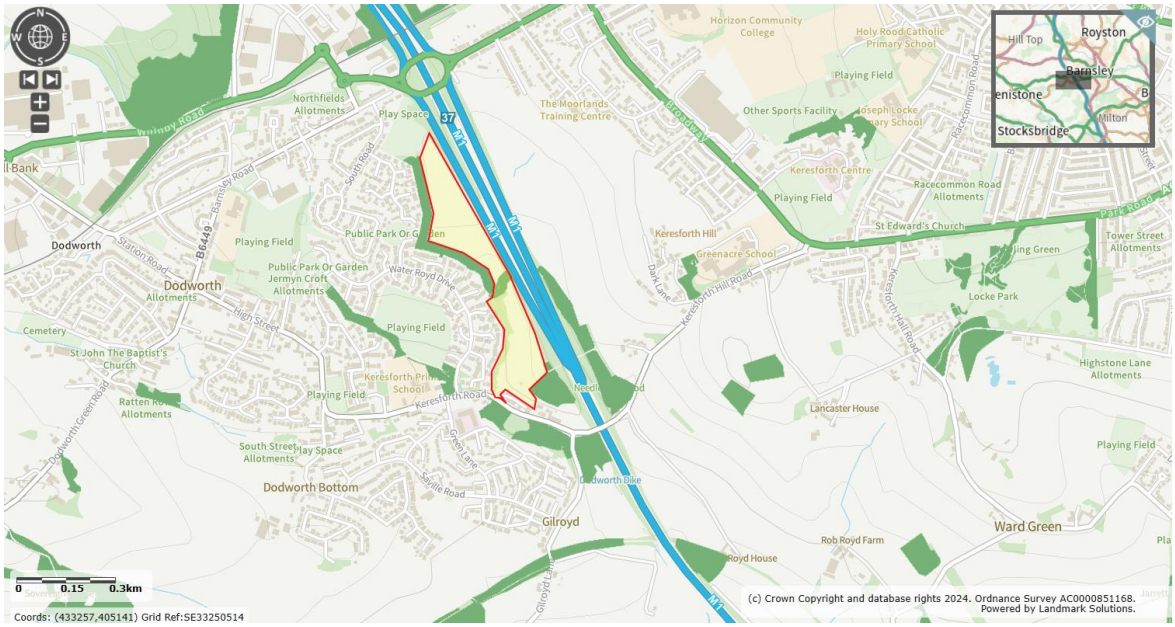
Parcel Reference 9

Plate 4.10 General image of parcel reference 9

Other lowland mixed deciduous woodland present on the site is partially identified as priority deciduous woodland, as identified on MAGIC and annotated at Figure 4.1, below. This woodland follows the tributary of the Dodworth Dyke (see below).

Species within the woodland canopy contained frequent sycamore (*Acer pseudoplatanus*), sessile oak and ash, occasional crack willow (*Salix fragilis*), wild cherry (*Prunus avium*) and field maple and rare beech (*Fagus sylvatica*), rowan (*Sorbus aucuparia*) and silver birch. Understory vegetation in the woodland included frequent sessile oak, sycamore, ash, hawthorn, and elder (*Sambucus nigra*), occasional blackthorn (*Prunus spinosa*), crack willow, goat willow, hazel (*Corylus avellana*), field maple, dog rose (*Rosa canina*), bramble (*Rubus fruticosus*) and rare holly (*Ilex aquifolium*), cherry laurel (*Prunus laurocerasus*) and rowan. The ground flora comprised of frequent bluebell, and ivy (*Hedera helix*), occasional ramsons (*Alium ursinum*), lords-and-ladies (*Arum maculatum*), lesser celandine (*Ficaria verna*), fringe cups (*Tellima grandiflora*), common nettle, creeping forget me not (*Myosotis secunda*), Yorkshire fog and cleavers, and rare male fern (*Dryopteris filix-mas*), wild strawberry (*Fragaria vesca*), bush vetch, hart's tongue fern (*Asplenium scolopendrium*) and herb Robert (*Geranium robertianum*).

Figure 4.1 Location of priority deciduous woodland



Several of the species identified in the ground flora are ancient woodland indicator species including bluebell, male fern, bush vetch, ramsons, hart's tongue fern and lords-and-ladies. Further ancient woodland indicator species were identified by Quants Environmental in May 2023[20] and included broad buckler-fern (*Dryopteris dilatata*), wood millet and yellow archangel. However, presence of these indicators does not specifically highlight that the woodland is ancient woodland. In order for a woodland to be ancient it must have been continuously wooded since at least 1600 CE as defined by UKHab[5].

After investigation, the other lowland mixed deciduous woodland has been found to not be ancient woodland. Figure 4.2 shows the location of the woodland where the woodland borders the M1 today (blue pin). It clearly shows that this location was not continuously wooded. It does appear to have been part of a tree avenue in the 1800's. Further investigation using aerial imagery from the 1900's has also found that this location was also not wooded as seen in Figure 4.3.

Figure 4.2 Ordnance Survey Maps from 1840s to 1880s

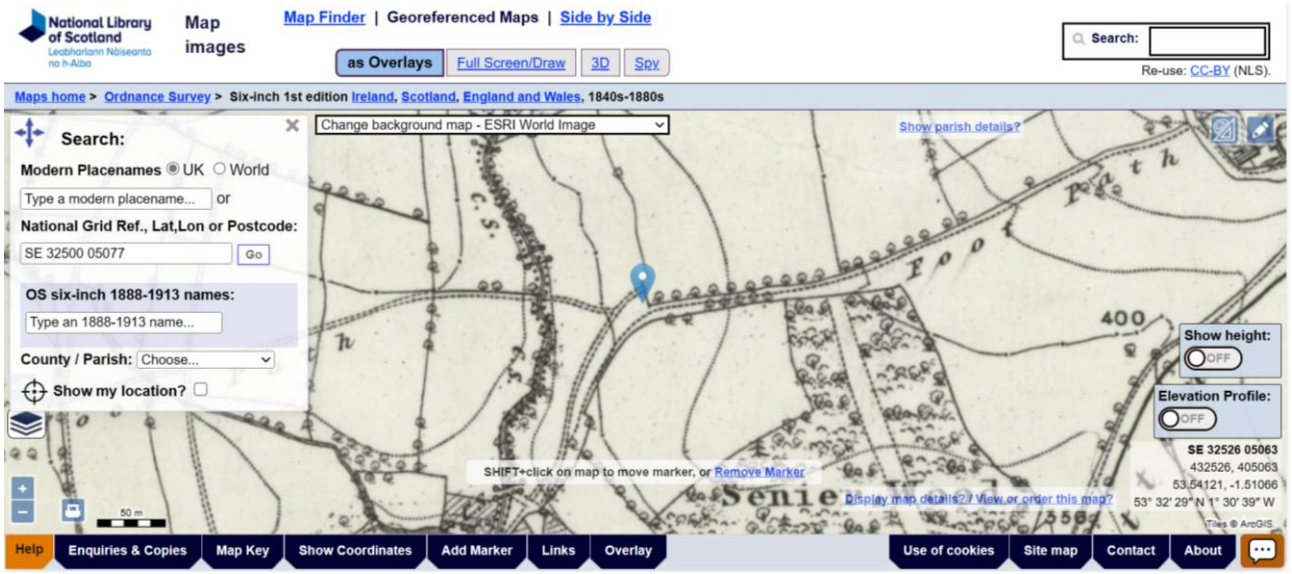


Figure 4.3 Aerial Image over Dodworth from 1954. Date flown:September 29, 1954bSortie:RAF/540/1424 Photographer:RAF

It is possible that over time this wood has become wooded due to lack of management and dispersal of vegetation from other woodlands in the local area. The closest known ancient woodland in present day is Silkstone Fall South which is ancient, replanted woodland. As such it is concluded that whilst part of the parcel reference 9 identified on the site as other lowland mixed deciduous woodland is priority habitat, it should not be identified as ancient woodland as it has not been continuously wooded since the 1600's.

Parcel Reference 10

Parcel reference 10 of other lowland mixed deciduous woodland is a small pocket of woodland bounding the M1 with a public footpath running through the centre. The vegetation includes abundant sessile oak and hawthorn with frequent hazel, occasional elder and field maple, and rare bramble and dog rose. The

ground flora had occasional lesser celandine, but the woodland floor was mainly bare ground and leaf litter.

The other lowland mixed deciduous woodland on the site encompasses priority woodland and has ancient woodland indicator species present. There are other areas of woodland within the local area, including woodland to the south of the site, which is also identified as deciduous priority woodland. Whilst it is common in the local area the woodland is still important as it is a priority habitat therefore the other lowland mixed deciduous woodland is of **Local** value.

Bramble Scrub

Parcel Reference 11

Plate 4.11 Facing north of bramble scrub at parcel reference 11

An area of bramble scrub was present surrounding the other neutral grassland of parcel reference 5, present in the south west of the site. Scattered trees [32] were also present including occasional ash and hawthorn, however the area was dominated by bramble. Nettle was also present.

Bramble scrub is considered to have **Site** value due to its importance for providing nesting habitat for species such as breeding birds.

Developed Land; Sealed Surface

Parcel Reference 12

Plate 4.12 Facing east of parcel reference 12

A road in the south west of the site, between parcel references 7 and 8, was present comprising of hardstanding tarmacadum.

This habitat is considered to have **negligible** value as it provides no ecological value.

Parcel References 13- 15

Plate 4.13 Horse stable and metal storage container at parcel reference 13 and 14

Plate 4.14 Metal storage container at parcel reference 15

Three structures were present in the south of the modified grassland habitat (parcel reference 6) comprising an open fronted barn structure for horses (parcel reference 13) and two metal storage containers (parcel references 14 and 15.

This habitat is considered to have **Site** value as they could provide nesting habitat for swifts (Apus apus) or house martins (Delichon urbicum) where eaves are present on in the horse stable, however there is likely better and more suitable habitat in the wider area.

Native Hedgerow [11 - Hedgerow with trees]

Plate 4.15 Native hedgerow with trees

A native hedgerow with trees (H1) [11] was present in the horse grazed modified grassland (parcel reference 6) as an overgrown hedgerow. Species included; frequent hawthorn, ash and elder (*Sambucus nigra*), and occasional sycamore (*Acer pseudoplatanus*).

Native hedgerows provide ecological value, however due to there being a woodland adjacent which provides similar ecological value, and further hedgerows and woodland in the wider local area, this habitat is considered to have up to **Site** value only.

Other Broadleaved Woodland [33 - Line of trees]

Plate 4.16 Far south of line of trees

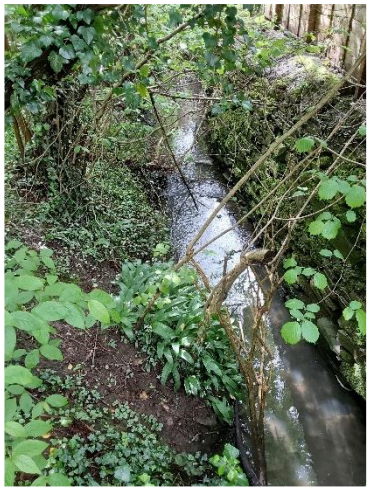
A line of trees (H2) [33] was present along the western boundary of parcel reference 6, and continued down alongside the bramble scrub (parcel reference 11) and modified grassland (parcel reference 7) in the south west of the site. Species included abundant ash, frequent hawthorn and sycamore, and rare horse chestnut (Aesculus hippocastanum).

Similarly to native hedgerows, lines of trees provide ecological value, however this is replicable in the adjacent woodland and those in the wider local area. Therefore, this habitat is considered to have **Site** value.

Other Rivers and Streams

Plate 4.17 Upper Reach of the Tributary of the Dodworth Dyke

Plate 4.18 Lower Reach of the Tributary of the Dodworth Dyke



One stream, a tributary of the Dodworth Dyke, was identified as running through the centre of the site and flowed towards the western boundary of the site eventually following the western site boundary. The stream was no more than 3 m at the widest point and the water depth varied but was on average 0.3 m deep with primarily a silt substrate. Banks were naturalised along the eastern bank but was artificial on the western banks, where a retaining wall is present along the residential properties and the site boundary. There were no plant species in the channel of the stream and bank vegetation was primarily made up of the woodland ground flora.

There are other rivers and streams within the local area which are connected to the Dodworth Dyke. Whilst it is common in the local area the other rivers and stream habitat on site is still important as it connects to other multiple potential ecosystems and is therefore considered to be of **Local** value.

4.3 DETAILED DESCRIPTION OF SITE: SPECIES

Badger

Twelve records of badger were returned from the data search from BBRC, five being records of setts, however all but three records were historical. Recent records pertained to two sett records and one of activity. Whilst the exact location of these records remains classified due to protection of this species, it should be noted that they were located over 500m from the site.

No evidence of badger was observed at the site.

The site does have suitability for foraging and commuting badger due to the presence of woodland and scrub habitats across the site. However, there was a lack of records within 500m of the site and absence of evidence of badger using the site during the site walkover. The site is considered to be of **moderate** value for badgers at the **Site** level.

Bats

Foraging

There were records of 6 bat species, including one unidentified bat species, returned from the data search with the BBRC. The closest record pertained to a roost of approximately 34 common pipistrelle bats located approximately 680m north west of the site in 2006.

The woodland, line of trees, native hedgerow, and scattered scrub amongst the northern grassland habitats all provide foraging habitat for bats. The woodland also connects to further woodland habitats around the site. The earlier Quants Environmental report assessed that the grassland, tall ruderal, hardstanding and introduced shrubs as having low value for foraging bats. Previous bat activity surveys (Quants Environmental) concluded low to moderate levels of bat activity across the site, pertaining to four common bat species; common pipistrelle, soprano pipistrelle, noctule and *Myotis* sp. All data collected pertained to individual bats foraging or commuting.

Bat activity surveys undertaken by Quants Environmental also concluded low levels of bat activity throughout the site, with only two bat species recorded; common pipistrelle and soprano pipistrelle. The majority of foraging/commuting bats were recorded in association with woodland and hedgerows at the site.

Bat static monitoring surveys also revealed low to moderate levels of bat activity at the site, with a total of four bat species recorded during the surveys: noctule, common pipistrelle. Soprano pipistrelle and myotis sp.

Due to the presence of suitable foraging habitat at the site, with connections to other suitable habitat surrounding the site, the site is considered to be of moderate value at the **Site** level for foraging bats.

Roosting

There were 14 records returned from the data search from BBRC, however no records were returned on MAGIC for European Protected Species (EPS) licences.

As per the previous ecology reports completed by Quants Environmental, ten trees were assessed on the site as having moderate potential to support roosting bats, these trees were surveyed using a dusk emergency survey and no bats were identified as emerging from the trees. The areas of woodlands, trees, hedgerow and scrub at the site were assessed as having **moderate** value for roosting bats.

Considering the above evidence bat activity, predominantly common pipistrelle, was concluded to be of low to moderate levels across the site. Therefore, the site is considered to be of moderate value at the **Site** level for roosting bats.

Great Crested Newt (and other Common Amphibians)

There are records of GCN and other common amphibians within 2km of the site. The closest recent record of GCN was located approximately 2.4km east of the site. The closest common amphibian record pertained to a historical record of common toad approximately 580m west of the site.

Two granted EPS licences for GCN were returned from MAGIC within 2km of the site. One permitting impact to and destruction of a breeding site located approximately 1.6km south east of the site (EPSM2009-712, dated 2009), and one permitting the destruction of a resting place located approximately 1.8km south east of the site (EPSM2011-3421, dated 2011 to 2014). Furthermore, positive GCN class survey licence returns were recorded in 2014 approximately 1.7km south east of the site.

The Natural England GCN Risk Zone dataset showed that the majority of the site is located in the Green Risk Zone, with a small proportion of the south of the site in the amber Risk Zone. This means that the majority the site is likely to have sparsely distributed GCN and are less likely to contain important pathways of connecting habitat for this species, but the small area in the Amber Risk Zone is likely to contain main population centres or comprise important connecting habitat or dispersal. There were no waterbodies observed on the site. However, the tributary of Dodworth Dyke is present and runs through the centre of the site. Due to this watercourse supporting flowing water it is unsuitable for breeding GCN, however does act as a passage for dispersal.

No waterbodies are present within 250m of the site. The closest waterbody is located approximately 280m south west of the site within Keresforth Primary School grounds. This waterbody is separated from the site by school grounds, residential housing and roads, as well as a waterbody with running water creating barriers for dispersal to the site. There is also similar habitat in the wider area so there is a low likelihood that if GCN were present in that waterbody that they would disperse onto the site.

The scrub, woodland, hedgerows, and grasslands at the site provide suitable foraging habitat for GCN. However, due to the distance of records and EPS licence returns, and lack of waterbodies at the site (that would be suitable for breeding) and within 250m of the site, the site is considered to have **negligible** value for GCN and are therefore not considered further within this assessment.

The scrub, woodland, hedgerows and grasslands with taller sward at the site also provide suitable foraging habitat for common amphibians. The closest record of common amphibian pertained to a common toad approximately 600m west of the site, however this record is historical. Due to the presence of the tributary of Dodworth Dyke running through the centre of the site, which could facilitate movement of common amphibians, but lack of recent records within 500m of the site, the site is considered to have low value at the **Site** level for common amphibians.

Reptiles

There were 19 records of reptiles returned by BBRC within 2km of the site, with the closest record pertaining to a common lizard located approximately 1.4km south west of the site in 2010.

Previous reptile surveys undertaken by Quants Environmental in September and October 2022, observed no evidence of reptiles on the site.

The site does offer some suitable foraging and sheltering habitat in the form of scrub and taller sward grassland in the north of the site, however the site is bounded by the M1 to the east and residential housing to the west and south of the site. Therefore, due to the distance of records returned from the

BBRC and the lack of evidence of reptiles using the site during the surveys undertaken in 2022, the site is considered to have value for reptiles at the **Site** level.

Dormouse

There were no records of dormouse returned within the data search from BBRC.

Furthermore, the site is located outside the limited geographic range of dormouse. Therefore, the site is considered to have **negligible** value for dormouse and are not considered further within this assessment.

Water Vole and Otter

Five records of water vole and one record of otter were returned from BBRC within 2km of the site. All records were historical, dated between 1975 and 1991.

A tributary of Dodworth Dyke is present at the centre of the site, and flows west and along the western boundary. Despite the presence of the M1 to the east of the site, the tributary of the Dodworth Dyke runs under the M1 and through the site towards Dodworth Dyke, thus providing connectivity from Dodworth Dyke to the site though the tributary.

The watercourse is heavily shaded, with several built up culverts and brick walls, and shallow <45% gradient banks in area, reducing the suitability for burrowing water vole. Shallow banks also reduce the opportunity for otters to build holts. However, otter may use the tributary of Dodworth Dyke through the site for occasional passage for foraging purposes.

No obvious evidence of water vole or otter was identified during the Greengage site walkover and earlier surveys by Quants Environmental did not observe evidence for these species.

Due to the lack of recent records and limited value of the tributary of Dodworth Dyke that is present at the site, the site is considered to have value for water vole and otter at the **Site** level.

Birds

A total of 4227 bird records pertaining to 129 species were returned from the BBRC within 2km of the site, with those relevant to the site and proposed development listed in Section 4.1 above. None of the records are associated with the site, however the most notable records returnedinclude WCA Schedule 1 species; barn owl, brambling, fieldfare, garganey, greylag goose, hobby, kingfisher, merlin, osprey, peregrine, red kite and redwing.

The site has potential to support notable breeding bird species such as skylark, song thrush, lapwing, bullfinch and grasshopper warbler. The site also has potential to support flocks of wintering species on the grassland at the north, such as linnet and resident meadow pipit. Scrub and woodland habitats provide a valuable fruiting resources for species such as siskin, redwing, fieldfare and song thrush. Wintering woodcock and snipe may also use the site where taller grassland and scrub areas are present.

Previous breeding bird surveys undertaken by Quants Environmental identified the site supporting a species assemblage typical of woodland, farmland and urban fringe habitats, with two Species of

Principal Importance for the conservation of biodiversity (NERC Act 2006), song thrush and dunnock, confirmed as breeding or possibly breeding at the site. No ground-nesting species were observed at the site during the surveys by Quants.

Greengage are currently undertaking breeding bird surveys during the 2024 season at the time of writing, with full results to follow in a separate report. However at this time, two pairs of song thrush are confirmed as having territories and likely breeding at the site. A peak count of 6 magpies have also been observed across the surveys undertaken which may influence the number of potential breeding pairs of other species owing to likely predation from this species. Of the species that are red or amber listed on the Birds of Conservation Concern, and those included within the NERC Act 2006, wood pigeon, dunnock, wren, stock dove, greenfinch, robin and goldfinch are also considered to be probable breeders at the site.

Due to the surrounding habitats supporting dense residential housing and the M1 to the west and east respectively they are unlikely to use the site because they fly low and will avoid dangerous commuting routes where they are likely to be fatally injured. Therefore the site is considered to have **negligible** value for barn owl at the **Site** level.

The site is bounded by the M1 and residential housing, however the woodland, scrub and tall forbs present at the site and immediately adjacent the site in the west and south east increases its value for breeding and wintering species to a **moderate** value for common species at the **Site** level.

Invertebrates

Seven notable invertebrates species were returned from BBRC within 2km of the site, which included white letter hairstreak, small heath butterfly, wall butterfly, dingy skipper, latticed heath moth, cinnabar moth, and shaded broad-bar. The closest record pertained to a cinnabar moth located approximately 660m north west of the site in 2018.

The site provides suitable habitat for invertebrate species in the form of woodland, tall forbs, scrub and other neutral grassland, which offer some floral diversity and interest for species associated with these habitats. Of the notable species, the following species-specific caterpillar foodplants were identified at the site:

- Fine grasses including fescues, meadow-grasses and bents, which were identified within the other neutral grassland habitats at the site for small heath butterfly;
- Cock's foot, bents and Yorkshire fog grasses for wall butterfly;
- Clovers for latticed heath moth;
- Common ragwort for cinnabar moth; and,
- Clovers and vetches for shaded broad bar moth.

There was no elm present for the elm-dependent white-letter hairstreak and no birds foot trefoil observed for the dingy skipper.

The site is considered to have **moderate** value at the **Site** level for invertebrates associated with rough grassland, scrub, and woodland, such as butterflies, moths and some beetles.

Protected Plant Species

Bluebell was present within the woodland at the site. Therefore, there is a **confirmed** presence of a protected plant species at the site. BBRC returned 79 records of bluebell within 2km of the site and therefore the species is not scarce in the local area. Therefore, the site is considered to have **high** value for protected plant species, bluebell, at the **Site** level.

Other BAP Species

Hedgehog

Twenty-one records of hedgehog were returned within 2km of the site, however all but one were historical. The recent record, from 2014, was located over 2km east of the site.

The hedgerows, line of trees, woodland, scrub and taller grassland all provide opportunities for foraging habitat, with the woodland providing some suitability for nesting and hibernating habitat for hedgehog.

Due to being adjacent an urban network of residential housing where hedgehogs are likely to be present, and limited number of recent records, the site is considered to have **moderate** value at the **Local** level for **foraging, nesting** and **hibernating** hedgehog.

Harvest Mouse

Fourteen records of harvest mouse (*Micromys minutus*) were returned from BBRC within 2km of the site, with only two being historical. All records pertained to the Worsborough Country Park or Worsborough Reservoir LWS, separated from the site by the M1 which therefore reduces the connectivity between records and the site. However, the site does offer some suitable habitat in the form of woodland and hedgerows. Due to the distance of local records and the limited connectivity, the site is considered to have **low** value at the **Site** level for harvest mice.

Brown Hare

Fifteen records of brown hare (*Lepus europaeus*) were returned from BBRC within 2km of the site, however all but five of the records were historical. The closest record was located approximately 1.4km south west of the site in 2020. The location of the record is connected to the site through further grassland habitats, hedgerow and woodland, however, residential housing present at the south of the site may provide some deterrent to their dispersal on to the site.

The site does provide some suitable habitat in the form of open grassland, woodland edges, and scrub for foraging and commuting brown hare. However, the open farmland present in the south of the site provides more valuable habitat. Due to the presence of local records with connectivity to the site and the suitability of on-site habitats for this species, the site is considered to offer **moderate** value at the **Site** level.

4.4 INVASIVE/NON-NATIVE SPECIES

Eleven records of signal crayfish, which are listed on Schedule 9 of the WCA, were returned from BBRC. The closest record was from 2020, located approximately 380m south of the site and associated with Housecarr Dike, which connects to the tributary of Dodworth Dyke on the site.

An unidentified cotoneaster species was identified on the site, which, due to being an unidentified species, is to be treated as a Schedule 9 listed species on the WCA as precaution due to possessing characteristics of the Schedule 9 species hollyberry cotoneaster (*Cotoneaster bullatus*). Cherry laurel was also identified in the woodland at the west of the site which possesses invasive tendencies but is not listed on Schedule 9.

Where species are listed on Schedule 9 of the WCA, it is an offence to allow them to spread in the wild and should be disposed of following biosecurity measures.

5.0 ASSESSMENT OF IMPACTS AND MITIGATION

5.1 PROPOSED MITIGATION, COMPENSATION AND ENHANCEMENT

Construction

During the construction phase of the site development, the main activities on the site will include vegetation clearance, including trees, construction activities including ground works, the use of operational plant and machinery and associated vehicle movements. Impacts which could occur as a result of these activities include loss and physical damage of modified grassland, other neutral grassland, lowland deciduous woodland and bramble scrub habitats, killing and disturbance of faunal species, and construction related pollution.

For the purposes of the assessment within this section it has been assumed that the measures below will be set out in a Construction Environmental Management Plan (CEMP). These measures include (but are not limited to) the following:

- Details of protective fencing installed prior to construction to demarcate works areas and to safeguard retained habitats;
- Requirements for any pre-construction checks required before the commencement of the construction phases (i.e. for nesting birds);
- Details associated with vegetation management and vegetation clearance, including appropriate timing of site clearance to avoid breeding bird period (March - August inclusive) and sensitive vegetation clearance to avoid harm to mammals or herpetofauna;
- Details regarding removal of invasive species;
- Adherence to best practice guidelines to minimise noise disturbance, supress dust and limit disturbance to retained areas of habitat;
- Outline of construction phase lighting measures to minimise light spill on sensitive habitat areas; and,
- Relevant safeguards to minimise the risk to terrestrial mammals such as covering all excavations and the provision of escape ramps.

Operation

Mitigation and enhancement measures for the operational phase of the development are to be embedded into design proposals. These measures are summarised below and to ensure their long-term viability, should be incorporated into an EMP.

A Biodiversity Net Gain Assessment (BNGA) has been undertaken by Greengage[1] using the Natural England Statutory Biodiversity Metric calculation tool which demonstrates that the proposals in their current form would achieve a net gain of 2.60% in HU, net gain of +43.03% in HeU, and no net gain or

loss in WU. Suggested amendments have been made in the BNGA to achieve the target of 10% BNG, however it is considered likely that off-site consumption would be required to satisfy the trading rules.

Landscaping

Fully detailed landscaping plans were not provided at the time of writing, therefore the following assumptions were made, following limited detail outlined in the 'Masterplan' drawing by nineteen47, dated 24th January 2024:

- Proposed habitat creation includes; 3.11 ha of other neutral grassland, 2.60ha of developed land; sealed surface, 0.06 ha of sustainable drainage system, 0.10 ha of other woodland; broadleaved, 160 urban trees at an equivalent 0.65 ha area, 1.26 ha vegetated garden and 0.20 ha mixed scrub. The development seeks to retain 0.03 ha of modified grassland, 0.03 ha of bramble scrub, 0.01 ha of developed land; sealed surface. Enhancement is also proposed for lowland mixed deciduous, line of trees and native hedgerow with trees.

However, as the design proposals do not meet the required target of 10% BNG nor meet the BNG Trading Rules for lowland mixed deciduous woodland at high distinctiveness and modified grassland at low distinctiveness, the following suggested amendments include:

- Planting 40 extra small urban trees at moderate condition (to total 200 newly planted trees) across the site;
- Replacement of vegetated gardens with other neutral grassland; and,
- Planting of lowland mixed deciduous woodland in replacement of mixed scrub in the 'area for biodiversity'.

Should the above recommendations be followed, the proposals would predict to provide a net gain of 4.17HU, equivalent to a net gain of 9.77%. However, trading rules would still not be satisfied with -3.42HU required for lowland mixed deciduous woodland.

Further off-site compensation is required to satisfy the BNG Trading Rules. It would be possible to explore enhancement of the lowland mixed deciduous woodland outside of the site, immediately adjacent to the site to the west. If the 1.83 ha area of woodland was enhanced from a moderate condition to a good condition this would result in a 14.56% BNG and would result in only requiring 1.38 HU compensation of lowland mixed deciduous woodland.

Detail should be secured and outlined in an EMP.

5.2 STATUTORY DESIGNATED SITES

Dearne Valley Wetlands SSSI is located approximately 1.8km south east of the site and Worsborough Country Park LNR is located approximately 1.9km south east of the site.

The site does fall within the Risk Zone for Dearne Valley Wetlands SSSI, however the planning proposal is not listed as one of the types of development proposal which could potentially result in adverse impacts on the SSSI, of which categories include:

- Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals;
- Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction;
- Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha;
- Any residential development of 100 or more houses outside existing settlements/urban areas;
- Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m^2, slurry lagoons & digestate stores > 200m^2, manure stores > 250t);
- General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion;
- Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill;
- Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management;
- Any discharge of water or liquid waste of more than 5m^3/day to ground (ie to seep away) or to surface water, such as a beck or stream; and,
- Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m^2 or more.

Due to being within the Risk Zone of the Dearne Valley SSSI, but the development not falling within one of the above risk categories, the current proposals for the site would have an overall **Negligible** (non-significant) effect in the short-term construction works and long-term operational of the site on statutory designated sites and no consultation with Natural England is required.

5.3 NON-STATUTORY DESIGNATED SITES

Although there are a number of LNRs present within 2km of the site, the closest pertains to Faithwaite and Lowe Wood LWS which is located 1.4km from the site. None of the LWS are connected to the site via the tributary of the Dodworth Dyke.

Due to the distance and the type of works proposed on the site, the current proposals for the site would have an overall **Negligible** (non-significant) effect in the short-term (construction) and long-term (operation) on non-statutory designated sites.

5.4 HABITATS

There will be large loss of habitat on the site to allow development to proceed. Habitats due to be lost on the site are considered to be of Site or Local value.

To minimise any potential impact from the construction works on retained habitats, best practice control methods should be followed and fully described within a CEMP. This will outline measures to minimise impact of site clearance on habitats and control pollution risks such as run-off, dust deposition, noise and vibration.

As is stated above, given the landscaping proposed and based on assumptions, development proposals have the potential to lead a net gain of +2.60% % in HU, net gain of +43.03 in HeU, and no net gain or loss in WU. Suggested amendments have been made in the BNGA report to achieve the target of 10% BNG, however it is considered likely that off-site consumption would be required to satisfy the trading rules.

Assuming the landscaping features and construction phase mitigation actions are effectively incorporated then the proposals are predicted to have a short-term, **Negative** (significant) effect whilst landscaping matures unless implement during or in advance of development and long-term **Negative** effect on the site due to not satisfying BNG requirements.

5.5 SPECIES

Badger

The current proposals for the site are likely to have impacts on badger due to the loss of foraging habitats, such as the grassland in order to construct the development. However an area of biodiversity will be created that will create foraging habitat post-development. If woodland is enhanced and created as part of this, this will also enhance the site for foraging opportunities. Therefore, the proposals are considered to have a **short-term Negative** effect for badger, and a **long-term Negligible** effect.

However, it is recommended that a badger survey takes place at least 3 months prior to commencement of works takes place to confirm the continued absence of badger setts on site or within 30m (minimum). The outcome of the badger survey will inform whether there is a requirement for the works to proceed in accordance with a Natural England badger mitigation licence or a Reasonable Avoidance Measures Method Statement (RAM MS).

Regardless of the sett presence/likely absence outcome, badgers are a highly mobile species and could move on to the site at any time/are confirmed to move across it, therefore Best Practice Measures (BPM) should be adhered to and any excavations during the development should not be left uncovered overnight. If covering excavations is not possible, then a suitable ramp should be left in the excavation to allow any entrapped wildlife to escape. BPM for badger will be detailed within a CEMP.

Bats

Foraging and Commuting

During the site clearance, large areas of foraging habitat associated with grassland and scrub will be cleared which will lead to the loss of suitable bat foraging and commuting habitat. Furthermore, there is likely additional lighting on the site for the purposes of development and thus artificial lighting will significantly increase above baseline levels, causing lightspill on the woodland and scrub habitat at the centre and west of the site that bats are likely to forage and commute along. Lighting creates barriers which many bat species cannot cross, especially slower-flying species such as bats within the Myotis group - with 7% of bat species identified by the Quants Environmental bat surveys as Myotis sp.

Whilst the proposed mitigation and enhancement measures do retain, protect and enhance foraging and commuting habitats for bats, measures to control the amount and level of artificial lighting will be in place to minimise disturbance on foraging bats, during the construction phase of development which will be set out in a CEMP. Furthermore, additional lightspill may occur from the proposals due to new residential dwellings, and therefore certain lighting restrictions will be implemented and detailed within an EMP.

Due to habitat loss, it is considered that the proposals will have a short-term significant, **Negative** effect during construction works, and a long-term significant **Negative** effect during the operational site on foraging and commuting bats, however this will be as minimised as far as possible by mitigation to be outlined and adhered to in the CEMP and EMP.

Roosting

There is currently opportunity for roosting identified at the site. Surveys have confirmed absence of bat roosts within trees identified as supporting moderate potential for roosting bats. While the absence of roosting bats has been confirmed within trees due to for removal (TN1, TN2 and TN4 as per previous ecology reports completed by Quants Environmental) to facilitate the development, roosting features are still present within these trees. The loss of features should be compensated for by supplying bat boxes and placing them on retained mature trees. Further trees that were assessed as displaying potential for bats are not to be removed.

Potential roost features in trees may appear over time due to disease, weather incidents etc. Therefore, due to the time between the surveys, this report and the time at which trees would be removed, it is recommended that ground level tree inspections of all trees to be removed should be undertaken within 6 months prior to removal and further advice to be provided for mitigation following the ground level tree inspections.

To increase the availability of roosting habitat, 100% of all new residential dwellings will implement integrated bat boxes into the development design, as detailed in the Barnsley Local Plan Supplementary Document: Biodiversity and Geodiversity policy[21], and 10 external bat boxes will be hung on trees in the woodland. These should comprise a variety of designs to provide a range of opportunities for supporting a variety of bat species. The bat boxes will be positioned to face between south and west facing and at

least 2-3m above the ground. The bat boxes will target crevice dwelling species. These will be set out in an EMP.

The light levels will still likely cause disturbance to roosting bats, therefore it is considered that the proposals will have a short-term significant, **Negative** effect during construction works, and a long-term significant Negative effect during the operational site on roosting bats, however this will be as minimised as far as possible by mitigation to be outlined and adhered to in the CEMP and EMP.

Birds

Wintering Bird Surveys were undertaken in the winter season of 23/24 by Greengage and Breeding Bird Surveys are currently being undertaken by Greengage at the time of writing. A full mitigation and enhancement report for birds will be included in the combined Bird Survey Results report, however mitigation and enhancement is likely to address the items outlined below.

Without mitigation, the clearance of scrub on the site during the construction phase has the potential to lead to the killing or injury of birds and/or the destruction of eggs and active nests. During operational phases there will be no additional loss of nesting habitat for birds. However, without sensitive management and cutting regimes, there could be the risk of destruction or disturbance of nesting birds.

Clearance of the scrub and taller grassland that provides nesting opportunities for arboreal and ground nesting species will be undertaken outside of the breeding bird season (breeding bird season is taken to run March to August inclusive). Should this not be possible, clearance will only be undertaken after an ecologist conducts a Nesting Bird Check (NBC) of these areas and confirms the likely absence of nesting birds.

Should nesting birds be identified, then a buffer of at least 5m will be left around the nest and no works will be undertaken within that buffer until the young have fledged. Regular monitoring of any active nests will be undertaken on a weekly basis by an ecologist to identify when the young had fledged. Vegetation will only be removed once it is confirmed that the young have fledged and no more active nests are present.

Operational phase protection measures will be incorporated into the EMP.

As compensation for habitat loss, additional nesting opportunities will be provided through the extensive tree planting with foraging habitat and scrub creation in the 'area for biodiversity', including fruit-bearing species.

As an enhancement, 100% of the number of residential dwellings, as detailed in the Barnsley Local Plan Supplementary Document: Biodiversity and Geodiversity policy[21] will implement integrated bird boxes into the development design, and 10 number of external bird boxes will be hung on trees in the woodland. These should include a mix of generalist bird boxes targeting passerine and garden bird species, as well as species specific bird boxes such as open-fronted robin boxes, starling bird boxes, and house sparrow boxes.

Following implementation of mitigation, compensation and enhancement measures, the proposals will likely result in a **Positive** long-term effect for birds. However, there will be a short-term, **Negative** effect whilst the replacement habitat matures.

Reptiles and Common Amphibians

Despite no evidence of the presence of reptiles during the Quants Environmental surveys in 2023, there is still potential for reptiles, including common amphibians, to be present at the site.

Therefore, in the absence of mitigation, the site clearance works have the potential to lead to the killing or injuring of reptiles/amphibians and loss of habitat.

Given the potential for herpetofauna to be present at the site, vegetation clearance of grassland will be undertaken in a staged manner between mid-March and mid-October when reptiles/amphibians are generally considered active and daytime temperatures are above 10°C. A Precautionary Method of Works (PMoW) will be followed, which will be included as part of the CEMP. Any suitable vegetation (e.g. scrub and longer sections of grassland) should first be cut to 15cm height using handheld tools, this should then be reduced to ground level 2-3 days later. Brash should be immediately cleared outside of construction areas. All areas of grass retained on site will then be kept short throughout the duration of construction works, to deter reptiles from occupying the site during this period.

To compensate for the loss of habitat, two reptile and amphibian hibernacula will be created in the 'area for biodiversity' in the south of the site. This will be in the form of log, rubble and off cuttings from vegetation removal/soft stripping used to create a diverse structure with numerous gaps and crevices for individuals to reside.

Following implementation of mitigation and compensation measures, the proposals will likely result in a short-term **Negative** effect on reptiles and amphibians during construction and whilst the created habitat matures (in the 'area for biodiversity'). However, there will be a long-term, **Negligible** effect.

Water Vole and Otter

Despite no evidence found during the Quants Environmental surveys in 2023, there is still potential for water vole and otter to be present on the site.

A PMoW will be followed for water vole and otter and will be detailed in the CEMP. Prior to any development on the Site, a pre-commencement site walkover should be undertaken. If works on the site are to start within the standard water vole survey season (April-September) a check should be undertaken within April-September no more than 3 months prior to the start of works. If the works are due to start outside of the water vole survey season, a later summer check (August-September) should be undertaken.

Following implementation of mitigation measures, the proposals will likely result in a short- and long-term **Negligible** effect on water vole and otter during construction and operation of the site.

Invertebrates

The value for invertebrates is predominantly associated with the scrub and areas of longer grass, which will all be removed during site clearance. The loss of these habitats, will result in the loss of habitat for pollinator and grassland associated invertebrate species, including lepidoptera and Hymenoptera.

To compensate for the loss of habitat, the biodiversity value of the remaining retained habitat will be maximised including the incorporation of wildflower grassland areas in the 'area for biodiversity' and other planting areas. Habitat not currently present on the site will also be created in the form of the following, and detailed within the EMP to include:

- A total of three invertebrate loggeries will be incorporated within the 'area for biodiversity', providing habitat for invertebrates to lay their eggs and the larvae to survive before emerging as adults; and,
- Three insect posts/hotels will be located within the wider landscaped areas, such as adjacent the woodland at the west of the site.

Following implementation of mitigation and enhancement measures, the proposals will likely result in a long-term **Positive** effect should management measures be followed within the EMP to ensure the longevity of the habitat features. However, there will be a short-term, **Negative** (non-significant) whilst the replacement habitat matures and habitat features due to be implemented.

BAP Species: Hedgehog, Brown Hare and Harvest Mouse

During the site clearance, areas of suitable hedgehog, brown hare and harvest mice foraging habitat including areas of scrub and taller grassland will be lost. The clearance of these could result in the killing and/or injury of these species. Although not a legally protected species, other than under general animal welfare legislation, they are all section 41 species under the Natural Environment and Rural Communities Act[22]

Clearance of the scrub and grassland, that provides foraging and nesting habitat for hedgehog, brown hare and harvest mice will be undertaken following the two-phase cut methodology as described for reptiles/amphibians. Should any hedgehog, brown hare or harvest mice be found during this, they should be moved to a suitable area of retained habitat, within the woodland at the north west where works are not planned for site access. These measures would be secured through inclusion in the CEMP.

For hedgehogs, brown hares and harvest mice, general construction activities within the site are likely to include ground works, excavations and storage of materials including pipes which, left uncovered, could trap or injure individuals moving through the site. Relevant safeguards will be implemented to include covering of excavations of provision of a means of escape (e.g ramp). Any shrub vegetation will be cleared in a phased manner.

To compensate for habitat loss, foraging habitat on the site will be incorporate in the form of grassland and shrub planting in the area of biodiversity shown in the 'Masterplan'.

Hedgehog shelters will also be provided in the form of three hedgehog nest boxes located within areas of longer vegetation, in undisturbed locations and in the 'area for biodiversity'. These will provide hibernation and nesting opportunities for individuals. As well as nest boxes, hedgehog highways (13cm x 13cm gaps at the bottom of fences) should be provided, either cut out or purposely created, to allow connectivity between the site and surrounding habitats including across the site itself - through gardens.

Following implementation of mitigation and enhancement measures, the proposals will likely result in a long-term, significant **Positive** effect at a Local level. However, there will be a short-term, **Negative** (non-significant) at a Local level whilst the replacement habitat matures.

Protected Plant Species

Bluebell has been confirmed as present at the site. Therefore, in accordance with the mitigation hierarchy, all sections of woodland that support bluebell should site out of the development area so the bluebell can be retained. If there is potential for bluebells to be crushed/disturbed during construction in adjacent areas, protective fencing will need to be established so that all bluebells are protected during the works. If works must proceed in an area with bluebell presence, a translocation exercise may need to take place, dependent on the works.

Enhancement of the woodland, as explored within the Greengage BNGA, would result in better habitat for the bluebell and other ancient woodland indicator species to thrive, by improving the ground flora.

Following implementation of mitigation measures, the proposals will likely result in a short-term **Negligible** effect, and long-term **Positive** effect.

5.6 INVASIVE SPECIES

The cotoneaster and cherry laurel identified on the site should be treated as an invasive species due to their invasive tendencies and the likelihood of the cotoneaster being a Schedule 9 species, and therefore, be removed from site following guidance from Defra[23] to prevent their spread in the wild.

Following implementation of mitigation and compensation measures, the proposals will likely result in a long-term **Positive** effect (non-significant) on invasive species by removing those species present that are listed on Schedule 9 of the WCA whilst following biodiversity measures detailed in the CEMP.

6.0 SUMMARY & CONCLUSION

Greengage Environmental Ltd (Greengage) was commissioned by Keepmoat Homes (Keepmoat) to undertake an Ecological Impact Assessment (EcIA) for the proposed development at land north of Keresforth Road, Dodworth, Barnsley, South Yorkshire located within the Local Authority of Metropolitan Borough of Barnsley, hereafter referred to as 'the site'.

This EcIA has been produced to inform a planning submission for the site to progress proposed residential development and in order to address outstanding LPA comments, to establish the ecological value of the site and the potential presence of legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works. This report incorporates the findings of an update Preliminary Ecological Appraisal (PEA).

The site extends to 8.03 ha and comprised other neutral grassland, modified grassland (both with some areas of scattered scrub), bramble scrub, lowland deciduous mixed woodland, a line of trees, a native hedgerow, and a small area of developed land; sealed surface in the form of a road at the south of the site.

The EcIA identified value for a number of notable and protected habitats and species including:

- Priority Habitat: Deciduous Woodland
- Badger;
- Bats;
- Birds;
- Reptile and common amphibians;
- Water vole and otter;
- Invertebrates;
- Other BAP species including hedgehog, brown hare and harvest mice;
- Protected plant species; and,
- Invasive species

A Biodiversity Net Gain Assessment has been undertaken using the Statutory Biodiversity Metric[1] which predicts that the development proposals will to lead to a net gain of +2.60% in biodiversity habitat units, net gain of 43.03% in hedgerow units, and no net gain or loss of watercourse units within the development footprint. The design proposals do not meet the required target of 10% BNG nor meet the BNG Trading Rules for lowland mixed deciduous woodland at high distinctiveness and modified grassland at low distinctiveness. Further amendments and suggestions have been made to compensate for the habitat loss.

Following the implementation of the recommendations discussed within this report, proposals are anticipated to have a minor positive overall impact on biodiversity and comply with all relevant planning policy and legislation.

Details of measures to be undertaken during construction should be incorporated into the CEMP.

Details of the ecological protection measures and landscaping features for operational phases of the development should be incorporated into the EMP.

APPENDIX A UKHAB MAP

Figure A.1 UKHab map

KERESFORTH ROAD

- Red Line Boundary
- Line of trees
- Native hedgerow with trees
- Other rivers and streams
- Bramble scrub
- Developed land; sealed surface
- Lowland mixed deciduous woodland
- Modified grassland
- Other neutral grassland

X = Parcel Reference Number

[X] = Secondary code

Title: Figure A.1a UKHab map - whole site

Drawn by: CP
Date: 29/05/2024

Reviewed by: FT
Date: 29/05/2024

Project number: 552654
Sources: Google Satellite Hybrid

Greengage

KERESFORTH ROAD

- Red Line Boundary
- Other rivers and streams
- Lowland mixed deciduous woodland
- Other neutral grassland

X = Parcel Reference Number

[X] = Secondary code

Title: Figure A.1b UKHab map - north

Drawn by: CP
Date: 29/05/2024

Reviewed by: FT
Date: 29/05/2024

Project number: 552654
Sources: Google Satellite Hybrid

Greengage

KERESFORTH ROAD

- Red Line Boundary
- Line of trees
- Native hedgerow with trees
- Other rivers and streams
- Bramble scrub
- Developed land; sealed surface
- Lowland mixed deciduous woodland
- Modified grassland
- Other neutral grassland

X = Parcel Reference Number

[X] = Secondary code

Title: Figure A.1b UKHab map - north

Drawn by: CP
Date: 29/05/2024

Reviewed by: FT
Date: 29/05/2024

Project number: 552654
Sources: Google Satellite Hybrid

Greengage

APPENDIX B RELEVANT LEGISLATION AND POLICY

B.1 LEGISLATION

Current key legislation relating to ecology includes The Environment Act[24] Wildlife and Countryside Act 1981 (as amended)[25]; The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations')[26], The Countryside and Rights of Way Act 2000 (CRoW Act)[27], and The Natural Environment and Rural Communities Act, 2006[28].

The Environment Act, 2021

Under the Environment Act, 2021, as of 12th February 2024 and 2nd April 2024, it is mandatory in England for new developments (with a small number of exceptions) to deliver a minimum 10% biodiversity net gain (BNG), as measured by the Statutory Biodiversity Metric or Small Sites Metric (SSM) respectively, secured through planning condition as standard (as per schedule 14 of the Act). Approach to the delivery of BNG must follow the mitigation hierarchy, with avoidance of impact and on-site compensation/gains prioritised, ahead of the use of off-site compensation, or the purchase of statutory credits.

The Act introduces the condition that no development may begin unless a Biodiversity Gain Plan (BGP) has been submitted and approved by the LPA.

The Act also amends requirements of the NERC Act, 2006, adding the need to not just conserve, but enhance biodiversity through planning projects. Furthermore, it introduces the need for the LPA to have regard to relevant local nature recovery strategies and relevant species/protected site conservation strategies, when making their decision.

Under the Act, the enhancements must be maintained for at least 30 years.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)[29], and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')[30], and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')[31] into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 43 and 47 respectively of the Conservation of Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 63 (1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which —

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of that site;

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats[32] (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (Erinaceus europaeus), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan[33] (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework[34] (and Biodiversity 2020 strategy[35] in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020[36] and EU Biodiversity Strategy (EUBS)[37], this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural

Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of Species of Principal Importance for Nature Conservation.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

Legislation Relating to Nesting Birds

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

Legislation Relating to Bats

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annexe IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2019, which transposes the Habitats Directive into UK law. Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

Legislation Relating to Reptiles

All species of reptile native to the UK are protected to some degree under national and/or international legislation, which provides mechanisms to protect the species, their habitats and sites occupied by the species.

Sand lizards and smooth snakes are European protected species and are afforded full protection under Section 9 of the Wildlife and Countryside Act 1981 and Regulation 43 of the Conservation of Habitats and Species Regulations 2019. However, these species are rare and highly localised. Their occurrence is not considered as relevant in this instance, as the ranges and specialist habitats of these species do not occur at this site.

The remaining widespread species of native reptiles (adder, grass snake, slow worm and viviparous lizard) are protected under part of Section 9(1) and all of Section 9(5) of the Wildlife and Countryside Act 1981. They are protected against intentional killing and injury and against sale, transporting for sale etc. The habitat of these species is not protected. However, in terms of development, disturbing or destroying reptile habitat during the course of development activities while reptiles are present is likely to lead to an offence under the Wildlife and Countryside Act 1981. It is therefore important to identify the presence of these species within a potential development site. If any of these species are confirmed, all reasonable measures must then be taken to ensure the species are removed to avoid the threat of injury or death associated with development activities.

Each species of native reptile has specific habitat requirements but general shared features include a structurally diverse habitat that provides for shelter, basking, foraging and hibernating.

All reptiles are BAP species and as such are also of material consideration in the planning process due to the NPPF.

Legislation Relating to Otter and Water vole

Water vole and otter are protected by the Wildlife and Countryside Act (1981) (as amended). It is an offence to intentionally kill, injure or capture a water vole of be in a possession of a live or dead otter/water vole or any part of one or intentionally damage, destroy or obstruct access or disturb any otter/water vole shelter or disturb while occupying such shelter. Works to water vole/otter habitat may require a licence for Natural England

Legislation Relating to Dormice

Dormice are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Protection to the species is also afforded by Regulation 43 of the Conservation of Habitats and Species Regulations 2019, making the hazel dormouse a European Protected Species. These two pieces of legislation operate in parallel, although there are some small differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a dormouse;
- Possess or control and live or dead specimen or anything derived from a dormouse (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a dormouse; and
- Intentionally or recklessly disturb a dormouse while it is occupying a structure or place which it uses for that purpose.

Regulation 43 of the Conservation of Habitats and Species Regulations 2019 makes it an offence to:

- Deliberately capture or kill a dormouse;
- Deliberately disturb a dormouse;
- Damage or destroy a breeding site or resting place of a dormouse; and
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead dormouse or any part of a dormouse.

Legislation Relating to Great Crested Newts

Great crested newts are given full protection under Schedule 5 of the Wildlife and Countryside Act 1981, as amended. Protection to the species is also afforded by Regulation 43 of the Conservation of Habitats and Species Regulations 2019, making the great crested newt a European Protected Species. These two pieces of legislation operate in parallel, although there are some small differences in scope and wording. Under the provisions of Section 9 of the Wildlife & Countryside Act, it is an offence to:

- Intentionally kill, injure or take a great crested newt;
- Possess or control and live or dead specimen or anything derived from a great crested newt (unless it can be shown to have been legally acquired);
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.

Regulation 43 of the Conservation of Habitats and Species Regulations 2019 makes it an offence to:

- Deliberately capture or kill a great crested newt;

- Deliberately disturb a great crested newt;
- Damage or destroy a breeding site or resting place of a great crested newt; and
- Keep transport, sell or exchange, or offer for sale or exchange a live or dead great crested newt or any part of a great crested newt.

Legislation Relating to Badger

The Protection of Badgers Act 1992 consolidates the previous Badger Acts of 1973 and 1991. The purpose of this Act is to protect the animals from deliberate cruelty and from the incidental effects of lawful activities which could cause them harm. It is thus an offence to:

- intentionally capture, kill or injure a badger;
- damage, destroy or block access to their setts;
- disturb badgers in setts;
- treat a badger cruelly;
- deliberately send or intentionally allow a dog into a sett; and
- bait or dig for badgers.

Within the Act a sett is defined as 'any structure or place, which displays signs indicating current use by a badger'.

In addition to this, in some circumstances, the intentional destruction of foraging area required to support a known group of badgers may be considered an offence by constituting cruel treatment of a badgers.

Wild Mammal Protection Act

All wild mammals are protected against intentional acts of cruelty under the above legislation.

This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

B.2 PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2023[38] sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of

sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: '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'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Regional

The South Yorkshire Mayoral Combined Authority (SYMCA) Plan was not available at the time of writing due to being under revision.

Local

Barnsley Local Plan[39]

The Barnsley Local Plan sets out the key elements of the planning framework for Barnsley, and the approach to its long term physical development to achieve the Council's vision of what sort of place Barnsley wants to become.

Relevant policies to this scheme are taken from the Barnsley Local Plan Supplementary Planning Document: Biodiversity and Geodiversity, adopted in March 2024[21] and include:

Policy BIO1 Biodiversity and Geodiversity

Development will be expected to conserve and enhance the biodiversity and geological features of the borough, by following a list of measures.

Policy GI1 Green Infrastructure

The protection, maintenance, enhancement and creation of an integrated network of connected and multi-functional Green Infrastructure assets that follow a list of criteria.

Policy GS1 Green Space

The council will work with partners to improve existing green space to meet the standards in the Green Space Strategy.

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