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Francus Royd Former Allotments

Preliminary Ecological Appraisal

Prepared for Mr C. Bennett

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Report Status	Authorised for Release	Date	Position
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EXECUTIVE SUMMARY

The client, Mr C Bennett, is seeking outline planning permission for a small residential development comprising erection of 5 dwellings and associated access at land adjacent to 17 Francus Royd, Carlton, S71 3FF.

In consultation with Barnsley MBC their ecology team made the following comments
“...the application could be supported by a brief ecology report/note produced by a qualified ecologist detailing the habitats present, any potential impacts from habitat loss and to protected/priority species and mitigation recommendations. A desk study undertaken with Barnsley Biological Record Centre may be appropriate, depending on the findings of the walkover survey.”

RDF Ecology were appointed to undertake an extended phase I habitat and protected species walkover survey and report on the findings.

Assessment Summary

Survey Item	Conclusions
Designated Sites - Statutory	The site is not covered by any statutory designation. The closest statutorily protected site is Dearne Valley Wetlands Site of Special Scientific Interest (SSSI), part of which is also designed as a Local Nature Reserve (LNR) and is located approximately 1.3km east of the site boundary No impacts upon designated sites are predicted and no further survey and assessment work are recommended.
Designated Sites – Non-Statutory	The site is not designated as a Local Wildlife Site. The closest LWS is located approximately 1.3m east of the site boundary No impacts upon designated sites are predicted and no further survey and assessment work are recommended.
Habitats	The habitats within the site have no intrinsic botanical value and the loss of species poor neutral grassland, ruderal vegetation and bramble scrub would have negligible ecological effects and would be significant within the zone of influence only. No further survey or assessment work is recommended with regard to their botanical value.
Bats—Buildings and Structures	There are no buildings or other structures within the site. No impacts upon roosting bats in buildings or other structures are predicted and no further survey or assessment work is recommended
Bats—Trees and Habitats	There are no large trees with potential roost features to be removed or directly affected by the proposed development and no commuting routes would be disrupted. No significant impacts upon commuting or feeding bats or upon bats roosting in trees are predicted and no further survey and assessment work is recommended
Badger	No evidence of badger activity was recorded and no impacts upon badgers are predicted and no further survey or assessment work is recommended.
Otter	The site does not contain any habitats of potential value to otters, no evidence of otter activity was recorded during the field survey. No impacts upon otters are predicted and no further survey or assessment work for otters is recommended
Water Vole	The site does not contain any habitats of potential value to water vole, no evidence of water vole activity was recorded during the field survey. No impacts upon water vole are predicted and no further survey or assessment work for water vole is recommended
Hedgehogs	The site contains habitats that are likely to be of value to hedgehogs. Garden fences will include access for hedgehogs to move freely between gardens and adjacent areas of habitat. No significant impacts upon hedgehogs are predicted and no further ornithological survey work is recommended

Survey Item	Conclusions
Breeding Birds	No significant impacts upon nesting birds are predicted and no further ornithological survey work is recommended
Amphibians	The site does not contain any ponds and no ponds were identified within 500m of the site that are linked to the site by areas of suitable habitats. No impacts upon amphibians are predicted and no further survey work is recommended
Reptiles	No evidence of reptiles was recorded during the survey and the isolated nature of the site and recent disruption of habitats during clearance of the allotments suggest that the site will not contain reptiles. No significant impacts upon reptiles are predicted and no further survey work is recommended
Recommendations	
Breeding Birds	That removal of trees, shrubs and surface vegetation should be completed outside of the bird breeding season (March to August inclusive). Where this is not possible a suitably qualified and experienced ecologist should complete a survey of the site immediately prior to completion of the proposed works to search for nesting birds and to advise on exclusion zones or timing of works if nesting birds are recorded

1. INTRODUCTION

1.1. Project Background

1.1.1. The client, Mr C Bennett, is seeking outline planning permission for a small residential development comprising erection of 5 dwellings and associated access at land adjacent to 17 Francus Royd, Carlton, S71 3FF (hereafter referred to as 'the site') whose location and extent is shown in Figure 1.

1.1.2. In consultation with Barnsley MBC their ecology team made the following comments:

"...the application could be supported by a brief ecology report/note produced by a qualified ecologist detailing the habitats present, any potential impacts from habitat loss and to protected/priority species and mitigation recommendations. A desk study undertaken with Barnsley Biological Record Centre may be appropriate, depending on the findings of the walkover survey."

1.2. Ecological Background

1.2.1. There have been no previous ecological surveys of the site.

1.3. Project Brief and Objectives

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

1.3.2. The objectives of the commission were to:

- To identify designated sites within a 2 km radius of the site;
- To undertake an extended phase 1 habitat and protected species walkover survey to describe and map the habitats on the site and to identify the presence or potential presence of any protected or notable species;
- To identify and assess potential ecological constraints to the proposed development;
- To prepare a preliminary ecological appraisal report
- To provide recommendations for further ecological surveys where necessary; and,
- Recommend appropriate mitigation measures to enable compliance with wildlife legislation, offset potential negative ecological effects and enhance biodiversity where possible.

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

2. THE DEVELOPMENT PROPOSALS

- 2.1. The development proposals considered by this preliminary ecological appraisal report (PEAR) include the provision of 5 dwellings and associated access on the site of the former Francus Royd Allotments.
- 2.2. The proposed development layout is illustrated in Figure 2 of the accompanying Planning Statement prepared by RBA Town Planning.

3. SURVEY METHODS

3.1. Desktop Study

- 3.1.1. A full desktop study has not been undertaken, however the following data sources were consulted in the preparation of this PEAR
- 3.1.2. Additional information on sites and species of nature conservation interest was obtained from:
 - Barnsley MBC Local Plan interactive On-line mapping service;
 - Multi Agency Geographic Information for the Countryside (MAGIC) website;
 - Natural England web site and online SSSI database.
- 3.1.3. The locations of protected sites are shown in Figure 2

3.2. Extended Phase I Habitat Survey

- 3.2.1. The extended phase I habitat study area covered the whole site.
- 3.2.2. The survey of the site was completed on 28 May 2024. All habitats within the site were surveyed.
- 3.2.3. Habitats present on the site were classified and mapped according to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat survey methodology (JNCC, 2010).
- 3.2.4. A phase 1 habitat survey provides sufficient information on the composition of the vegetation present to enable it to be characterised and assessed.
- 3.2.5. Fauna and flora present at the time of survey were recorded and the site was assessed for its potential to support notable and/or protected species that could be impacted by development following CIEEM guidance (CIEEM, 2017 and 2018).
- 3.2.6. Target notes were prepared for any features of ecological interest and their locations noted in Figure 3. Plant species were recorded following the nomenclature in Stace (1997) and lists of species are included in Appendix 1.

3.3. Badger

- 3.3.1. Areas of suitable habitat on site and within 50m of the site boundary (where accessible) were searched for evidence of badger with reference to the methodology defined in Harris et al. (1991). The following field signs were recorded, if encountered, during the protected species walkover survey:
 - Setts;
 - Latrines;
 - Prints and paths or trackways;

- Hairs caught on rough wood or fencing; and
- Other evidence including snuffle holes, feeding remains and scratching posts.

3.3.2. Where setts were recorded, their status and level of activity was noted. Sett status is broadly categorised as follows:

- Main: generally the largest sett within a badger clan's territory, with a relatively large number of sett entrances with well-worn pathways between them, and conspicuous spoil mounds. This type of sett will be occupied throughout the year and used for breeding;
- Annexe: normally found within 150m of the main sett comprising many entrances, this type of sett may not be occupied throughout the year, and can be used for breeding if there is more than one breeding sow within the clan;
- Subsidiary: similar to an annexe sett, but typically located further from the main sett. This type of sett will not be occupied throughout the year and lacks the well-worn paths associated with main and annexe setts; and
- Outlier: consisting of one or two entrances, this type of sett will be found furthest from the main sett and will only be used sporadically throughout the year.

3.3.3. The suitability of the existing habitats on site, as badger breeding and foraging habitat, was assessed.

3.4. Otter

3.4.1. Areas of suitable habitat on site and within 50m of the site boundary (where accessible) were searched for evidence of otter (*Lutra lutra*). The following field signs were recorded, if encountered, during the protected species walkover survey:

- Sightings of Otters
- Otter Holts
- Otter footprints
- Otter spraints
- Otter slides

3.4.2. The suitability of the existing habitats on site, as otter breeding and foraging habitat, was assessed.

3.5. Water Vole

3.5.1. Areas of suitable habitat on site and within 50m of the site boundary (where accessible) were searched for evidence of water vole (*Arvicola amphibius*). The following field signs were recorded, if encountered, during the protected species walkover survey:

- Sightings of Water Voles
- Water Vole tunnel entrances
- Water Vole “lawns”
- Water Vole feeding stations
- Water Vole latrines
- Waterside paths
- Runs in vegetation
- Water Vole footprints
- Sounds of Water Voles 'plopping' into the water

3.5.2. The suitability of the existing habitats on site, as water vole breeding and foraging habitat, was assessed.

3.6. Bat

3.6.1. Whilst completing the extended phase I habitat survey a preliminary bat roost assessment and ground level tree assessment was undertaken in accordance with best practice guidelines (Collins 2023 and 2016).

3.6.1. Buildings and Other Structures Assessment

3.6.1.1. Buildings within the Site were visually assessed from ground level for potential roost features (PRF's) and evidence of bat activity using binoculars to view upper floor areas and roofs along with a one million candlepower torch to aid visibility.

3.6.1.2. The external ground level survey sought to identify features that could be used by roosting bats such as small gaps in the pointing and brickwork, gaps around barge/soffit/fascia boards, loose or badly fitting lead flashing, raised or missing ridge tiles and gaps at gable ends, all of which provide potential access points for roosting bats. Evidence of use by bats included the presence of a live or dead bat, accumulations of bat droppings, feeding remains or urine staining. The presence of cobwebs, bird nests and general detritus within PRF's was taken as an indication that they were unlikely to be used by bats.

3.6.1.3. Where safe internal access was possible, buildings were thoroughly examined for any evidence of bat activity including looking for live or dead bats, droppings, feeding remains or staining. Specifically, the visual survey involved looking for the following evidence:

- Bat droppings on walls, windowsills and in roof spaces
- Scratch marks and staining on beams, other internal structures and potential entrance and exit holes
- Wing fragments of butterfly and moth species underneath beams and other internal structures

- The presence of dense spider webs at a potential roost can often indicate absence of bats
- Examination of crevices and cracks in the buildings to assess their importance for roosting bats

3.6.1.4. Buildings are classified as having high, medium, low or negligible risk for containing bat roosts based upon the type and construction of the building, the number and quality of potential roost features present, and the building position in relation to the surrounding environment. Table 2 below summarises the criteria used for bat roost potential assessment of buildings.

3.6.1.5. However it should be noted that these are guidelines only and **RDF Ecology** have discovered important bat roosts in modern as well as older buildings.

Table 1—Criteria for bat roost potential assessment of buildings and structures (based Collins 2016).

Suitability	Description
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or 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 due to their size, shelter, protection, conditions and surrounding habitat.

3.6.2. Tree Assessment

3.6.2.1. Trees within or immediately adjacent to the site were assessed for their potential to support roosting bats in accordance with best practice guidelines (Collins 2023). The trees were examined from the ground using binoculars and a high-powered torch where appropriate to look for any potential roost features (PRF's) such as natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, thick stemmed ivy growth, hollows/cavities and within dense epicormic growths. The trees were classified according to the criteria detailed in Table 1 below, based upon the visible PRF's identified during the ground levels survey. For extensive areas of woodland, where all trees could not be fully checked the woodland

as a whole, was assessed for its potential for roosting bats based upon the overall age and character of the trees present.

Table 2—Criteria for bat roost potential assessment of trees (based on Collins 2023 and 2016)

Tree Suitability (Collins 2023)	Tree Category (Collins 2016)	Description
-	Confirmed	Tree with features confirmed to be used by roosting bats either by historic records (verified appropriately), or evidence recorded during survey.
PRF	High	Tree with many suitable PRF's capable of supporting larger roosts. The tree is located within habitat that is connected to wider landscape by strong linear features that may be used by commuting bats e.g. river valley, streams and hedgerows.
	Moderate	Tree with definite bat roost potential but with fewer larger PRF's or several PRF's with the potential to be used by individual/small numbers of bats. Surrounding area includes good quality foraging habitat for bats e.g. broadleaved woodland, tree-lined watercourses and grazed parkland; or tree with highly suitable features though its context is less optimal.
	Low	Tree with less PRF's capable of supporting only individual/small numbers of bats within a suboptimal location; tree in suitable habitat and of a size and age that elevated surveys are considered likely to result in cracks or crevices being found; or tree with definite bat roost potential which is isolated and within low quality foraging habitat meaning that the presence of a roost is considered less likely.
FAR	Negligible	Tree with no visible PRF's, or very few or minor features in an isolated/unsuitable location such that the presence of a roost is considered highly improbable e.g. isolated from suitable foraging or commuting habitats.
NONE	None	No PRF's in tree or highly unlikely to be any

3.6.3. Habitat Assessment

3.6.3.1. Habitat within and adjacent to the site boundary was assessed for its suitability for commuting and feeding bats in accordance with current guidance (Table 4.1 in Collins, 2023) with habitats categorised as having None, negligible, low, moderate or high suitability for commuting and feeding bats and are summarised in Table 3 below:

Table 3— Criteria for habitat suitability assessments (based on interpretation of Collins 2023)

Habitat Suitability	Description
High	<p>Continuous high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, stream, hedgerows, lines of trees and woodland edge.</p> <p>High quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses and grazed parkland</p> <p>Site is close to and connected to known roosts.</p>

Habitat Suitability	Description
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream but isolated i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland setting) or a patch of scrub.
Negligible *	No obvious habitat features on site likely to be used as flight-paths of by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or to generate shelter/insect populations available to foraging bats.
* Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'	

3.7. Hedgehogs

- 3.7.1. Any casual observations of hedgehogs were recorded and the habitats within the site were assessed for their potential value for hedgehogs.

3.8. Wild Birds

- 3.8.1. Habitat within and adjacent to the site boundary was assessed for its suitability for nesting birds. Bird species seen or heard during the survey were recorded.

3.9. Amphibians

- 3.9.1. There are no ponds within the site or within 500m of the site boundary

3.10. Reptile Survey

- 3.10.1. Any casual observations of reptiles within the site were recorded and the habitats within the site were assessed for their potential value for reptiles.

3.11. Invasive Non-Native Species

- 3.11.1. During the phase I habitat survey the presence and location of any non-native invasive species was recorded paying particular attention to recording any species listed in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

3.12. Limitation of Field Survey

- 3.12.1. The extended phase 1 habitat survey was undertaken on 28 May 2024 within the period generally considered to be the optimal vegetation survey period (i.e. April to September). Given the timings of the survey and the nature of the modified habitats recorded on site it is considered that no limitations are present in the assessment of the site for protected/notable

species and habitats. However, an extended phase 1 habitat survey does not comprise a full botanical assessment of all species present within a site; therefore species lists are indicative only.

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

4. SURVEY RESULTS

4.1. Designated Sites

- 4.1.1. Nature Conservation designations within 2km of the site are shown in Figure 2.

4.1.1. Designated Sites

- 4.1.1.1. The site is not covered by any statutory nature conservation designations and there is only a single site covered by statutory nature conservation designation within 2km of the site boundary and this is Dearne Valley Wetlands Site of Special Scientific Interest (SSSI), part of which is also designed as a Local Nature Reserve (LNR) and is located approximately 1.3km east of the site boundary.
- 4.1.1.2. The Carlton Marsh Local Nature Reserve is also identified as a Biodiversity or Geological Interest Local Wildlife Site in the Barnsley Local Plan.

4.2. Extended Phase 1 Habitat Survey

- 4.2.1. The results of the extended phase 1 habitat and protected species walkover surveys are presented below. Figure 3 illustrates the location and extent of all habitat types recorded on site, with notable features or features too small to map highlighted using Target Notes (TN). A list of species recorded on the site is included in Appendix 1.

4.3. Habitat Descriptions

- 4.3.1. Table 4 below summarises the phase I habitats recorded within the site boundary.

Table 4—Habitats Recorded within Site Boundary

Habitat Type	Area (ha)
Bramble scrub	
Tall Ruderal/Disturbed Ground/Bare Ground Vegetation	

4.3.1. Bramble Scrub (A1.1.1)

- 4.3.1.1. Small areas of developing bramble (*Rubus fruticosus agg.*) scrub were recorded along the northern site boundary with some coarse grasses including false oat-grass (*Arrhenatherum elatius*), cock's-foot (*Dactylus glomerata*) and Yorkshire fog (*Holcus lanatus*) along with some large stands of common nettle (*Urtica dioica*).
- 4.3.1.2. Other species present included cow parsley (*Anthriscus sylvestris*), cleavers (*Galium aparine*), broad-leaved dock (*Rumex obtusifolius*), spear

thistle (*Cirsium vulgare*), hedge bindweed (*Calystegia sepium*), ivy (*hedera helix*) and occasional hedge mustard (*Sisymbrium officinale*).



Photograph 1 - Developing Bramble SCRUB

4.3.2. Tall Ruderal /Disturbed Ground/Bare Ground Vegetation

- 4.3.2.1. The majority of the site comprises former allotments that have been cleared of sheds, greenhouses and the allotment vegetation and levelled. This has resulted in a range of distributed ground vegetation becoming established along with some sparser vegetation on the surfaced former access road.
- 4.3.2.2. Former allotment plants are frequent in the vegetation and include chives (*Allium schoenoprasum*), Carrot (*Daucus carota ssp. Sativus*), Sunflower (*Helianthus annuus*) and less frequent Thorn Apple (*Datura stramonium*).
- 4.3.2.3. On the richer soils the vegetation contains large stands of common nettle with some broad-leaved dock and cow parsley.



Photograph 2 - Nettle growth on richer soils

- 4.3.2.4. Elsewhere some small patches of vegetation were more grass dominated with smooth meadow-grass (*Poa pratensis*), false oat-grass, cock's-foot and Yorkshire fog along with broad-leaved dock, ragwort (*Senecio jacobaea*) and occasional rosebay willowherb (*Chamerion angustifolium*).



Photograph 3 - Grassy vegetation in north of site

- 4.3.2.5. Across the majority of the site the vegetation was a complex and patchy mix of bare ground, short sparse vegetation and ruderal species.
- 4.3.2.6. The sparsely vegetated areas contained a range of bare ground specialists including abundant cornsalad (*Valerianella locusta*), fat-hen (*Chenopodium album*), Canadian fleabane (*Conyza canadensis*), pineappleweed (*Matricaria discoidea*), common mouse-ear (*Cerastium fontanum*), annual meadow-grass (*Poa annua*), greater plantain (*Plantago major*), common chickweed (*Stellaria media*) and white clover (*Trifolium repens*).



Photograph 4 - Revegetating bare ground

- 4.3.2.7. Other areas contained abundant hedge mustard, broad-leaved dock, weld (*Reseda luteola*) and common nettle, whilst other areas contained abundant creeping buttercup (*Ranunculus repens*) with white clover, common bent (*Agrostis capillaris*), wall barley (*Hordeum murinum*).



Photographs 5 and 6 - Tall and short vegetation types

4.4. Protected Species

4.4.1. Bats

Buildings and Other Structures

- 4.4.1.1. The site does not contain any buildings or other structure of potential value to roosting bats.

Trees

- 4.4.1.2. The site does not contain any large trees with potential value to roosting bats. There are a small number of trees adjacent to the site boundary but located in neighbouring properties gardens and these were assessed to have no potential value for roosting bats.

Habitats

- 4.4.1.3. The site is enclosed by housing development on all sides. Beyond the residential areas to the north the landscape is one of open arable agricultural land and to the south are areas of plantation woodland and open grassland with an angling lake to the south west of the site and beyond this are areas of commercial development.

4.4.2. Badgers

- 4.4.2.1. No badger setts were recorded within or immediately adjacent to site.
- 4.4.2.2. No evidence of badger foraging activity was recorded during the field survey.

4.4.3. Otters

- 4.4.3.1. The site does not contain any habitats of potential value to otter (*Lutra lutra*), no evidence of otter activity was recorded during the field survey.

4.4.4. Water Vole

- 4.4.4.1. The site does not contain any habitats of potential value to water vole (*Arvicola amphibius*), no evidence of water vole activity was recorded during the field survey.

4.4.5. Hedgehogs

- 4.4.5.1. No evidence of hedgehogs was recorded during the site survey. The habitats within the site provide potential foraging habitat for hedgehogs.

4.4.6. Wild Birds

- 4.4.6.1. During the survey a small number of birds were recorded, mainly from neighbouring gardens and included Robin (*Erithacus rubecula*), blackbird (*Turdus merula*) and wren (*Troglodytes troglodytes*). Two goldfinches (*Carduelis carduelis*) were recorded flying over the site.

4.4.7. Amphibians

- 4.4.7.1. The site does not contain any ponds suitable for breeding amphibians including great crested newts (*Triturus cristatus*) and no amphibians were recorded during the field survey.
- 4.4.7.2. Examination of OS maps and satellite imagery indicates that there are no ponds located within 500m of the site boundary that are connected to the site by areas of suitable terrestrial habitat other than a large angling pond located approximately 450m south west of the site boundary

4.4.8. Reptiles

- 4.4.8.1. No reptiles were recorded during the survey. The site is isolated from other areas of habitat by the adjacent residential properties and gardens.
- 4.4.8.2. The coarse vegetation that has developed on site since it was cleared of the allotment buildings is of limited value for reptiles.

4.5. Non-Native Invasive Species

- 4.5.1. No non-native invasive species were noted during the fields survey, however a number of garden and allotment species were noted.

5. PLANNING POLICY CONTEXT

5.1. National Planning Policy 2023

- 5.1.1. The National Planning Policy Framework (NPPF 2023) sets out the Government's planning policies for England and how these are expected to be applied. The NPPF sets out the Government's national principles and policies for England on the protection of biodiversity and geological conservation through the planning system.
- 5.1.2. At the heart of the NPPF is a clear "*presumption in favour of sustainable development*" (Para 11).
- 5.1.3. The UK's Sustainable Development Strategy "Securing the Future" sets out 5 guiding principles of sustainable development:
- living within the planet's environmental limits;
 - ensuring a strong, healthy and just society;
 - achieving a sustainable economy;
 - promoting good governance; and
 - using sound science responsibly.
- 5.1.4. Section 15 (paragraph 180) of the NPPF sets out how Planning policies and decisions should contribute to and enhance the natural and local environment by:
- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
 - b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
 - c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
 - d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
 - e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into

account relevant information such as river basin management plans;
and

- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

6.1.5. Paragraph 185 refers to protecting and enhancing biodiversity and geodiversity, stating that plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity⁶⁵; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity

5.1.5. Paragraph 186 notes that When determining planning applications, local planning authorities should apply the following principles:

- a) 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;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains

- for biodiversity or enhance public access to nature where this is appropriate.
- 5.1.6. Paragraph 187 insists that the following should be given the same protection as habitats sites:
- a) potential Special Protection Areas and possible Special Areas of Conservation;
 - b) listed or proposed Ramsar sites; and
 - c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.
- 5.1.7. Furthermore paragraph 188 notes that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site
- 5.1.8. Annex 1 of the NPPF sets out the detail of implementation.
- 5.1.9. *ODPM Circular 06/2005* (Government Circular: Biodiversity and Geological Conservation—Statutory Obligations and their Impact within the Planning System) continues to provide administrative guidance on the application of the law relating to planning and nature conservation as it applies in England. It complements and supports the expression of national planning guidance set out in NPPF.

6. EVALUATION AND RECOMMENDATIONS

6.1. Overall Approach to Assessment

6.1.1. The overall approach to assessment adopted by the study team is based upon the guidelines for Guidelines for Ecological Impact Assessment in the UK and Ireland—Terrestrial, Freshwater, Marine and Coastal published by the Chartered Institute of Ecological and Environmental (CIEEM 2018) and can be summarised as below:

1. To identify the likely zone of influence (study area) arising from the whole lifespan of the project;
2. To identify and value the features of nature conservation interest within the ecological study area in a systematic way by establishing levels of interest for ecological features measured against definable criteria and is used to select the species, communities, habitats or sites that require further detailed examination during the process of ecological impact assessment.
3. To identify the biophysical changes attributable to the project that are likely to affect valued ecological features and resources;
4. To assess whether these biophysical changes are likely to give rise to a significant ecological impact, defined as an impact on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area, including cumulative and in-combination impacts;
5. To consider appropriate refinement of the project to avoid or reduce identified negative impacts and incorporate mitigation measures and/or compensation measures for any residual significant negative impacts and ecological enhancement measures to improve the wider environment;
6. To undertake an assessment of the ecological impacts of the refined project and definition of the significance of these impacts, including cumulative and in-combination impacts;
7. To provide advice on the consequences for decision making of the significant ecological impacts, based on the value of the resource, feature or function; and

8. Where appropriate to make recommendations for monitoring the implementation and success of mitigation and compensation measures and ecological outcomes, including feedback in relation to predicted outcomes.

6.2. Determining Value

- 6.2.1. The CIEEM guidelines advocates an approach to the valuation of ecological features using a geographical framework (full details in Appendix 2) based upon the following:
 - International;
 - National; (i.e. England/Northern Ireland/Scotland/Wales)
 - Regional;
 - County/Metropolitan
 - District/Unitary Authority/City or Borough
 - Local/Parish
 - Within zone of influence only
- 6.2.2. The thorough evaluation of the ecological importance of the features of a site is essential in order to assess the significance of the ecological effects of the development proposals.
- 6.2.3. The evaluation criteria are given in detail in Appendix 2. Their aim is to consider the habitats, communities and species present on site in relation to the following:
 1. The legislative framework (e.g. the Wildlife and Countryside Act 1981 and the EC Directive on the Conservation of Habitats and Wild Fauna and Flora (92/43/EEC) for the presence of protected species and habitats).
 2. Nature conservation designations, including national site designations (Sites of Special Scientific Interest, National Nature Reserves etc), local designations (Sites of Importance for Nature Conservation, Local Nature Reserves, County Wildlife Sites etc).
 3. Accepted criteria for species rarity and declining populations, and rarity of habitat types or communities, including species and habitats identified in the British Red Data Books, national biodiversity action plan, and species and habitats identified in regional or local biodiversity action plans where available.
 4. Accepted criteria for overall site evaluation (including rarity, diversity, naturalness, historical factors and issues relating to landscape ecology).

6.3. Development Impacts

- 6.3.1. The development as proposed will result in the loss of all habitats within the site boundary. However these have only recently developed since the site was fully cleared of allotment buildings and paraphernalia.
- 6.3.2. No significant off-site impacts are predicted and surface and foul water would be connected into existing systems.

6.4. Nature Conservation Designations

6.4.1. Statutory Designations

- 6.4.1.1. The site is not covered by any statutory or non-statutory nature conservation designations.
- 6.4.1.2. The nearest site covered by a statutory designation is Dearne Valley Wetlands Site of Special Scientific Interest (SSSI), part of which is also designed as a Local Nature Reserve (LNR) and is located approximately 1.3km east of the site boundary.
- 6.4.1.3. The Impact Risk Zones (IRZs) are a GIS tool and dataset developed by Natural England (NE) to make a rapid initial assessment of the potential risks posed by development proposals to: Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. They define zones around each site which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.
- 6.4.1.4. Using this tool indicates that proposed residential development is unlikely to pose a risk to nearby SSSI's and that the Local Planning Authority does not need to formally consult NE in relation to the development proposals assessed by this PEAR.

6.4.2. Non-Statutory Designations

- 4.1.1.2. The Carlton Marsh Local Nature Reserve is also identified as a Biodiversity or Geological Interest Local Wildlife Site in the Barnsley Local Plan.
- 6.4.2.1. **No** impacts upon designated sites are predicted and **no** further survey and assessment work are recommended.

6.5. Habitats

- 6.5.1. The site contains a small area of young developing bramble scrub along with a range of disturbed ground habitats that have developed since the allotment site was cleared of buildings and other structures.
- 6.5.2. The habitats present with the site support a limited range of common and widespread species typically associated with nutrient rich or disturbed habitats.
- 6.5.3. These habitats have no intrinsic botanical value and the loss of the ephemeral habitats would only be felt within zone of influence of the development and therefore **no** specific compensation or mitigation measures are proposed and **no** further survey or assessment work is recommended with regard to their botanical value.

6.6. Protected Species

6.6.1. Bats

- 6.6.1.1. All UK species of bat are afforded full protection under Section 9 of the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5 of the Act and also receive full protection as European Protected Species under Section 41 of The Conservation of Habitats and Species Regulations 2017 through their inclusion on Schedule 2.

Buildings

- 6.6.1.2. The site does not contain any buildings of potential value to roosting bats
- 6.6.1.3. **No** significant impacts upon roosting bats in buildings are predicted and **no** further survey and assessment work is recommended.

Trees

- 6.6.1.4. The site does not contain any trees of potential value to roosting bats
- 6.6.1.5. **No** significant impacts upon roosting bats in trees are predicted and **no** further survey and assessment work is recommended.

Habitats

- 6.6.1.6. The sheltered habits within the site provide some limited potential for use by foraging bats that may be roosting in nearby properties, however, the new residential gardens will also provide similar sheltered habitat for foraging bats.
- 6.6.1.7. **No** significant impacts upon commuting or feeding bats are predicted and **no** further survey and assessment work is recommended.

6.6.2. Badgers

- 6.6.2.1. Badgers are protected under the Protection of Badgers Act 1992.
- 6.6.2.2. No badger setts were recorded within or immediately adjacent to site and no evidence of badger foraging activity was recorded during the field survey.
- 6.6.2.3. **No** impacts upon badgers are predicted and **no** further survey or assessment work is recommended

6.6.3. Otters

- 6.6.3.1. Otters are afforded full protection under Section 9 of the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5 of the Act and also receive full protection as European Protected Species under Section 41 of The Conservation of Habitats and Species Regulations 2017 through their inclusion on Schedule 2.
- 6.6.3.2. The site **does not** contain any habitats of potential value to otters. **No** impacts upon otter are predicted and **no** further survey or assessment work for otters is recommended.

6.6.4. Water Vole

- 6.6.4.1. Water vole is afforded full protection under Section 9 of the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5 of the Act.
- 6.6.4.2. The site **does not** contain any habitats of potential value to water vole. **No** impacts upon water vole are predicted and **no** further survey or assessment work for water vole is recommended.

6.6.5. Hedgehog

- 6.6.5.1. Hedgehogs are listed on schedule 6 of the Wildlife and Countryside Act (1981) which makes it illegal to kill or capture wild hedgehogs, with certain methods listed. They are also listed under the Wild Mammals Protection Act (1996), which prohibits cruel treatment of hedgehogs.
- 6.6.5.2. Hedgehogs are also listed as a Species of 'Principal Importance' in Section 41 of the NERC Act 2006.
- 6.6.5.3. Hedgehogs may be present in the site and adjacent gardens but the recent disruption of habitats during clearance of the allotments suggest that the use of the site would be low
- 6.6.5.4. Garden fences installed as part of the development will include access for hedgehogs to move freely between gardens and adjacent areas of habitat

- 6.6.5.5. **No** significant impacts upon hedgehogs are predicted and **no** further ornithological survey work is recommended.

6.6.6. Wild Birds

- 6.6.6.1. With certain exceptions, all wild birds, their eggs, nests and young are protected under the *Wildlife and Countryside Act 1981* (as amended).
- 6.6.6.2. Limited bird activity was recorded from the adjacent residential gardens and the habitats within the site provide limited potential for ground nesting species.
- 6.6.6.3. In any case, potential impacts upon nesting birds can be prevented during construction by ensuring that vegetation removal is programmed to occur outside of the bird nesting season (March to September inclusive) or where this is not possible under the supervision of a suitably qualified and experienced ecologist as set out in the recommendations below.
- 6.6.6.4. **No** significant impacts upon nesting birds are predicted and **no** further ornithological survey work is recommended.

6.6.7. Amphibians

- 6.6.7.1. All UK native amphibians are afforded partial or full protection under Section 9 of the *Wildlife and Countryside Act 1981* (as amended) through their inclusion on Schedule 5 of the Act and Great Crested newts (*Triturus cristatus*) are provided the highest level of protection. Great crested newts (GCN) are fully protected from capture, injury, killing and damage or destruction of their breeding sites or resting places under The Conservation of Habitats and Species (as amended) Regulations 2017.
- 6.6.7.2. The site does not contain any ponds suitable for breeding amphibians including great crested newts and no amphibians were recorded during the field survey. **No** other ponds linked to the site by semi-natural vegetation were recorded and **no** impacts upon amphibians are predicted and **no** further survey work is recommended.

6.6.8. Reptiles

- 6.6.8.1. All species of native reptiles are protected under the Wildlife and Countryside Act 1981 (as amended). The sand lizard (*Lacerta agilis*) and smooth snake (*Coronella austriaca*) are further protected under Conservation of Habitats and Species (Amendment) Regulations 2017.
- 6.6.8.2. The site is largely isolated from other areas of habitat by residential developments, with no semi natural habitats link it to other areas with

potential to support reptiles. The clearance of allotment buildings from the site removed any potential habitat for reptiles.

- 6.6.8.3. Potential impacts upon reptiles can be prevented during the works proposed by completing them in accordance with standard mitigation measures and under the guidance of a reasonable avoidance measures method statement which sets out methods of working and timing of works.
- 6.6.8.4. **No** significant impacts upon reptiles are predicted and **no** further survey work is recommended.

6.7. Recommendations

6.7.1. Breeding Birds

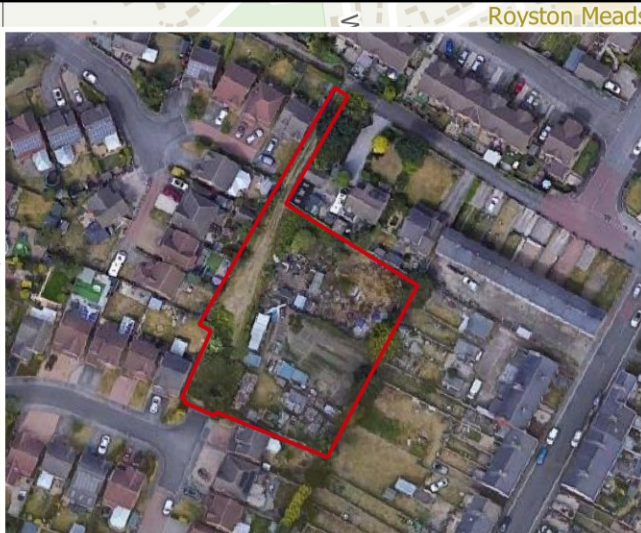
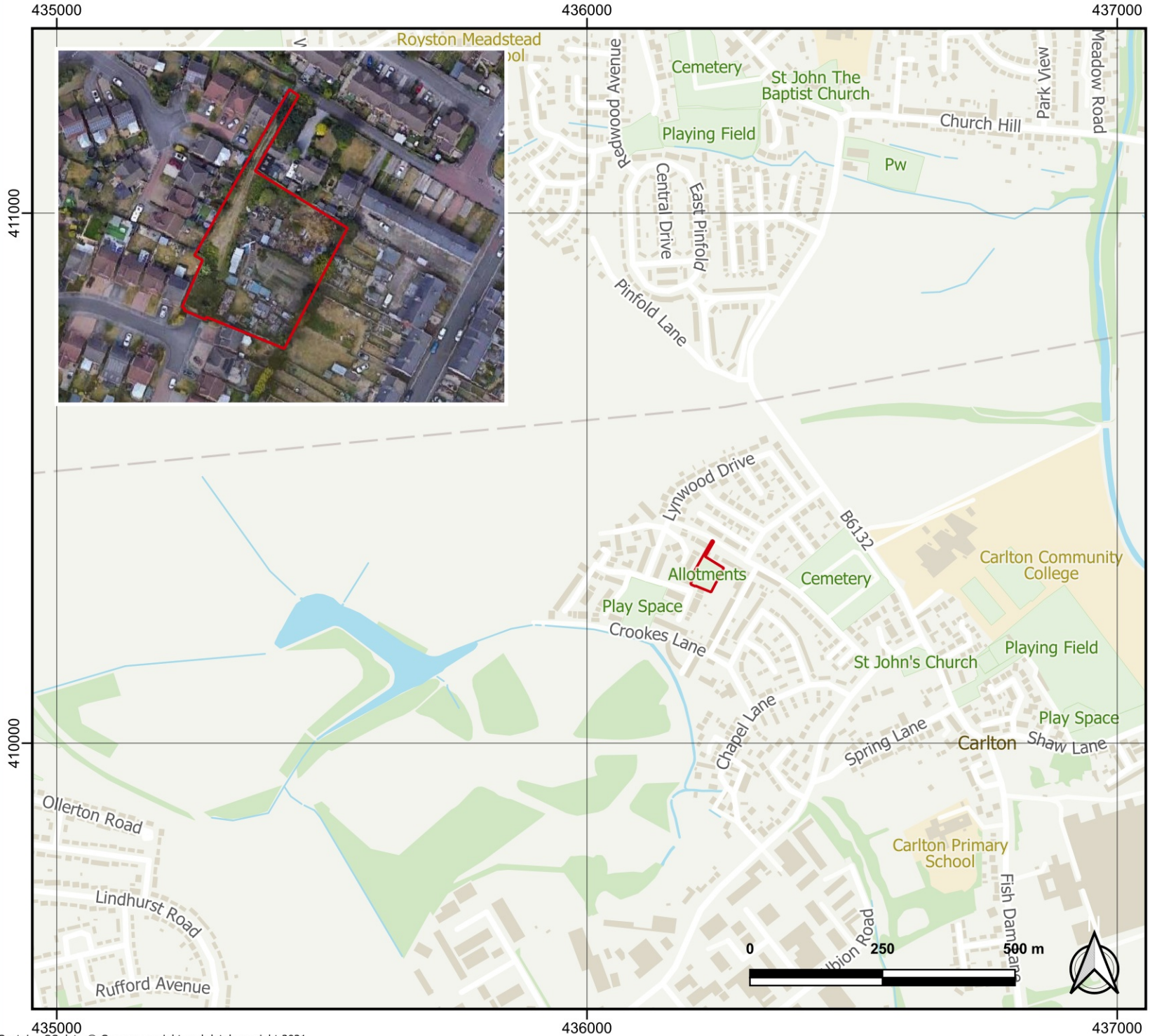
- 6.7.1.1. Whilst only limited bird activity was recorded from the adjacent residential gardens, the ruderal vegetation and bramble scrub within the site could be used by birds during the breeding season (March to August inclusive). Given the protection afforded to wild birds and their nests the following precautionary measures are recommended:
- That removal of trees, shrubs and surface vegetation should be completed outside of the bird breeding season (March to September inclusive). Where this is not possible a suitably qualified and experienced ecologist should complete survey of the site immediately prior to completion of the proposed works to search for nesting birds and to advise on exclusion zones or timing of works if nesting birds are recorded.

7. FIGURES


Figure 1—Site Location

Figure 2—Nature Conservation Designations

Figure 3—Phase I Habitats



Wood Lane Allotments

KEY
 Site Boundary

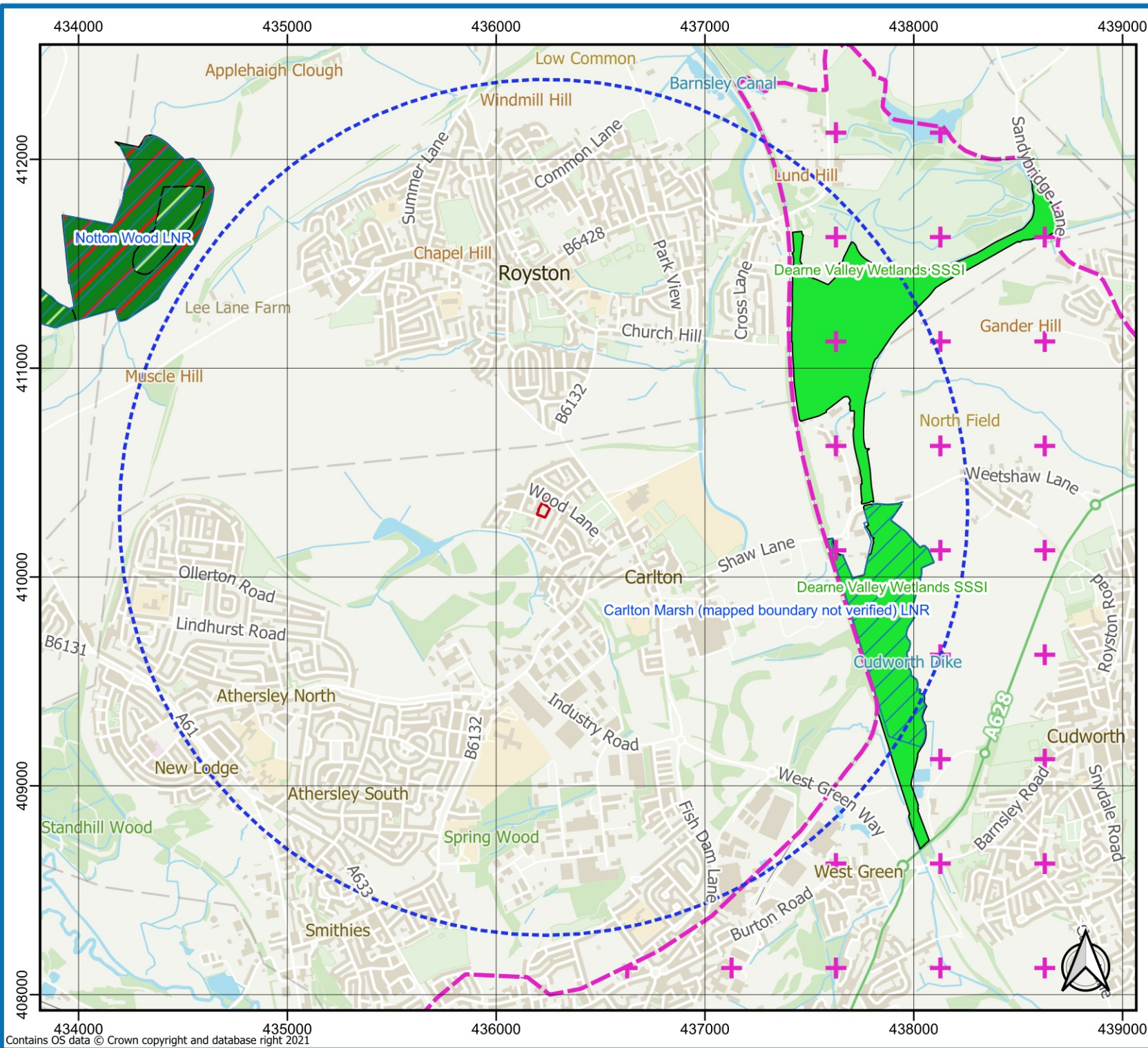
Scale: 1:10,000 @A4

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Fig 1 - Site Location



Wood Lane Allotments

- KEY**
- Statutory Designations**
- Sites of Special Scientific Interest
 - + Nature Improvement Areas
 - Local Nature Reserve
- Non-Statutory Designations**
- Ancient Woodlands**
- Ancient & Semi-Natural Woodland
 - Ancient Replanted Woodland

Scale: 1:25,000 @A4

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Fig 2 - Designations



Wood Lane Allotments

KEY

- Site Boundary
- Phase 1 Habitats**
- Bramble scrub
- Tall ruderal and coarse vegetation
- Revegetating bare ground
- Trees with Bat Risk**
- ▲ None

Scale: 1:600 @A4

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Fig 3 - Phase 1 Habitats

8. REFERENCES

8.1. Project References

RBA Town Planning – Planning Statement (2024)

8.2. Technical References

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

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

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

Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The bat conservation Trust, London

Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The bat conservation Trust, London

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

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

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

HMSO Wildlife and Countryside Act 1981 (as amended).

HMSO (2006) Natural Environment and Rural Communities Act.

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

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

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

9. APPENDICES

9.1. Appendix 1—List of Species

Key

D	Dominant	51-100%
A	Abundant	35-50%
F	Frequent	16-30%
O	Occasional	6-15%
R	Rare	1-5%
No entry	Absent	0%
L	Local e.g. LF – Locally Frequent	-
V	Very e.g. VR = Very Rare	-

9.2. Appendix 2—Valuation Criteria

- 9.2.1. Guidelines for ecological evaluation and the assessment of impacts have been published by Institute of Environmental Assessment (1995) and the Chartered Institute of Ecology and Environmental Management (CIEEM 2018).
- 9.2.2. The value that is attached to an ecological resource influences:
- whether, as part of screening, potentially affected features or resources are considered sufficiently valuable that there could be a significant effect that would trigger an EIA;
 - whether, as part of scoping, ecological features or resources are considered for inclusion in the EclA—this is influenced by their value in relation to a ‘threshold’ level of value that should be defined during scoping;
 - deciding what mitigation is appropriate and
 - considering legal and policy implications.

9.2.1. Legislative Framework

- 9.2.1.1. Species, communities or habitats receiving legal protection under UK or EC law have high importance on national and international scales.
- 9.2.1.2. Internationally important sites include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites. In the UK candidate SACs, potential SPAs and proposed Ramsar sites should be given the same consideration as designated sites in accordance with country specific policies and supporting guidance.
- 9.2.1.3. Species, communities or habitats requiring protection under EC law are listed on schedules I and II (whose conservation requires the designation of Special Areas of Conservation), IV (species in need of strict protection) and V (species whose exploitation may be subject to management measures) of the EC Directive on the Conservation of Habitats and Wild Fauna and Flora (92/43/EEC). The enabling legislation for the UK is the Conservation (Natural Habitat, &c) Regulations 2017. Species may also be scheduled under Appendix 1 of the Convention on the Conservation of European Wildlife and Natural Heritage 1979 (Bern Convention).
- 9.2.1.4. Other sites of international importance designated under international obligations include Biosphere Reserves (UNESCO Man and Biosphere Programme), Ramsar Sites (Convention on Wetlands of International Importance especially as Wildfowl Habitat 1971) and Special Protection Areas (EC Wild Birds Directive 79/409).

- 9.2.1.5. Species with special protection under UK law are listed on the schedules of the Wildlife and Countryside Act 1981 and amendments. The act also gives rise to statutory site designations i.e. National Nature Reserves, Sites of Special Scientific Interest, Areas of Special Protection for Birds, and orders e.g. Limestone Pavement Orders.

9.2.2. UK Site Designations

- 9.2.2.1. Sites of national importance include the statutorily designated Sites of Scientific Interest (SSSI) and National Nature Reserves (NNRs).
- 9.2.2.2. Lower levels of importance attach to locally designated sites such as those non-statutory site designations applied by Local Authorities or Wildlife Trusts e.g. Sites of Importance for Nature Conservation (SINC's or equivalent) or Local Nature Reserves designated under the National Parks and Access to the Countryside Act 1949. Such sites may be considered to be of High Local Importance i.e. important at the county or metropolitan level (CIEEM 2018).

9.2.3. Rarity of Species and Habitats

- 9.2.3.1. The British Red Data Book for vascular plants (Perring and Farrell 1983) lists 317 species or subspecies as extinct, endangered, vulnerable and rare. Nationally rare species are defined as occurring in 1–15 10km squares of the national grid in Britain, nationally scarce species occurring in 16–100 10km squares. The presence of a breeding population of any nationally rare species is of national importance whereas a breeding population of a nationally scarce species is of regional importance. Assemblages of 2 or more species may increase the importance of a site further.
- 9.2.3.2. Regional rarities are defined as occurring in 15 or fewer localities or 1km squares in a former Nature Conservancy Council region (NCC 1989).
- 9.2.3.3. Biodiversity: The UK Steering Group Report contains a “Long List” of key species in the UK that fall into 1 or more of the following categories: threatened endemics or globally threatened; where the UK holds greater than 25% of the world population; where numbers or range have declined by more than 25% in the last 25 years; nationally rare species; and statutorily protected species. Presence of viable populations of such species may be of high importance.
- 9.2.3.4. County floras and biodiversity action plans, or district action plans may identify species that are rare at the county or district level. Viable populations will therefore have conservation importance in these contexts.

- 9.2.3.5. Further information on species rarity may be found in Scarce Plants in Britain (Stewart et al 1994) and the Atlas of the British Flora (Perring and Walters 1962) and subsequent revisions.
- 9.2.3.6. Biodiversity: The UK Steering Group Report has identified a number of key habitats under the following criteria: those for which the UK has international obligations; rare habitats or those with high rates of decline; functionally critical habitats (marine areas); and habitats that are important for key species. Sites containing good examples of viable areas of any key habitat may be considered nationally important.
- 9.2.3.7. Importance may be attached to plant community types defined in the National Vegetation Classification (Rodwell 1991 etc) that are also described as rare, declining or with restricted distributions or are identified as being of particular botanical importance (NCC 1989).

9.2.4. Criteria for Overall Site Evaluation

- 9.2.4.1. The accepted criteria for site evaluation are set out by Ratcliffe (1977) in a Nature Conservation Review and are also explained in Guidelines for the Selection of Biological SSSI's (NCC 1989). The principal criteria are briefly outlined below:
- 9.2.4.2. **Naturalness.** Truly natural habitats are valued highly but are rare in Britain and most sites are modified and semi-natural at best. Physical habitat modifications vary greatly in their impact, some being beneficial whilst others are harmful. A greater degree of conformity of a particular community or site with semi-natural rather than highly modified vegetation types in the National Vegetation Classification and the absence of species indicating disturbance are likely to lead to attachment of higher importance. However, note that communities that appear to be intermediate between semi-natural NVC types are not necessarily of lesser quality.
Size. The area of a site or habitat judged to be viable varies greatly between different habitat types and with factors such as the condition of the habitat, the shape of the habitat area and surrounding land use. In addition, the territorial requirements of particular species within the site/habitat and habitat management factors may need consideration.
In general, larger sites or areas of habitat tend to be valued more highly because of the greater population sizes and hence more robust populations of the species within them; the potential for increased site or habitat diversity and hence greater species-richness over a larger area; and a reduced importance of edge effects (pollution drift, habitat degradation/change for other reasons at the site edge) if the site is block

rather than ribbon shaped. Small sites become increasingly important in areas of little semi-natural habitat.

Rarity. Criteria for rarity of species and habitats are outlined above. The scarcer the habitat or species then the higher the level of importance attached.

Diversity. Diversity tends to be valued positively as it increases. At the phytosociological level, some habitats are more species-rich than others and so have a higher value, provided that the richness does not involve non-native species. Some plant communities are intrinsically more species-rich than others so comparisons should only be made between the same community type.

The standard of floristic diversity is guided by the floristic tables within the National Vegetation Classification (NVC) (Rodwell 1991 etc). A community having more than 75% of the total plant species list for its type in the NVC would be rated very highly. Diversity of different communities within a vegetation formation (e.g. woodland) may also be rated highly as may structural diversity (e.g. rides, glades and differing age structures or canopy layering in woodland). Habitat diversity across a site may also increase its importance.

Fragility. Fragility is a measure of the intrinsic sensitivity of nearly all natural and semi-natural habitats and species to human impact. It is the fragility of such habitats and species which causes them to be more highly valued than any of the artificial substitutes which replace them through human activity; and the greater their fragility the greater their value. Fragility is therefore clearly related irreplaceability or non-recreatability. Re-creation of habitats that have taken centuries to develop, sometimes with centuries of traditional management, is impossible to the full extent of their former complexity.

Typicalness. Typicalness is an indication of how characteristic the features of a site are compared to its particular ecosystem. It is intended as a guard against designation of those sites with unusual features as being always the most important.

Position in an Ecological/Geographical Unit. This is a landscape ecological criteria designed to identify sites or habitats which may be important to maintaining the viability of a larger group thereof; or which is essential in maintaining the population of a species with a large territory spanning several sites; or is one of a number of sites important to a

metapopulation of a species in fragmented landscapes; or may be important in a wildlife corridor or network of habitat patches.

9.2.5. Amenity Value

- 9.2.5.1. The amenity value of a site in ecological terms is generally seen as its value for the study or quiet enjoyment of wildlife. Sites with high intrinsic appeal and good access are therefore regarded as important in this context. Also important are issues such as site safety, proximity to schools and population centres and site management difficulties. Less emphasis is placed on the criteria outlined in section 9.1.4 in such situations.

9.2.6. Ecological Importance Summary Table

- 9.2.6.1. The following table has slightly modified from Regini (2000) with reference to CIEEM 2018. Its definitions are adopted in this report. Where species, habitats or sites occur in more than one category, the highest level of importance is applicable. Sites that meet the criteria for a particular designation are afforded the level of importance corresponding to that designation whether or not they are actually designated.

Table 5—Ecological Importance Summary Table

Level of Value	Examples
International	<p>An internationally designated site or candidate site (SPA, pSPA, SAC, cSAC, pSAC, Ramsar site, Biogenetic Reserve).</p> <p>A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat which are essential to maintain the viability of a larger whole.</p> <p>Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP.</p> <p>A regularly occurring, nationally significant population of any internationally important species.</p> <p>Also a regularly occurring and nationally significant number of an internationally important species during a critical phase of its life cycle.</p>
National	<p>A nationally designated site (SSSI, ASSI, NNR, Marine Nature Reserve) or a discrete area, which meets the published selection criteria for national designation (e.g. SSSI selection guidelines).</p> <p>A viable area of a priority habitat identified in the UK BAP, or of smaller areas of such habitat which are essential to maintain the viability of a larger whole.</p> <p>Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP).</p> <p>A regularly occurring, regionally or county significant population of any nationally important species.</p> <p>Also a regularly occurring and regionally or county significant number of a nationally important species during a critical phase of its life cycle.</p>

Level of Value	Examples
Regional	<p>Viable areas of key habitat identified in the Regional BAP or smaller areas of such habitat which are essential to maintain the viability of a larger whole;</p> <p>Viable areas of key habitat identified as being of Regional value in the appropriate Natural Area profile;</p> <p>Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a regionally important species during a critical phase of its life cycle;</p> <p>Sites which exceed the County-level designations but fall short of SSSI selection guidelines, where these occur.</p>
County / Metropolitan	<p>Semi-natural ancient woodland greater than 0.25 ha;</p> <p>County/Metropolitan sites and other sites which meet the published ecological selection criteria for designation, including Local Nature Reserves selected on County / metropolitan;</p> <p>A viable area of habitat identified in County BAP;</p> <p>Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan "red data book" or BAP on account of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a County/Metropolitan important species during a critical phase of its life cycle.</p>
District / Borough	<p>Semi-natural ancient woodland smaller than 0.25 ha;</p> <p>Areas of habitat identified in a sub-County (District/Borough) BAP or in the relevant Natural Area profile;</p> <p>Local Nature Reserves selected on District/ Borough criteria</p> <p>Sites/features that are scarce within the District/Borough or which appreciably enrich the District/Borough habitat resource;</p> <p>A diverse and/ or ecologically valuable hedgerow network;</p> <p>A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation;</p> <p>A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.</p>
Parish / Neighbourhood	<p>Areas of habitat considered to appreciably enrich the habitat resource within the context of the Parish or neighbourhood, e.g. species-rich hedgerows.</p> <p>Local Nature Reserves selected on Parish criteria.</p>
Negligible	<p>Low grade, widespread and common habitats.</p>