



Ecological Impact Assessment and Biodiversity Net Gain Assessment

Shepley Road

Newett Homes Limited

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Basis of Report

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Executive Summary

An EclA has been prepared by SLR in respect of the proposed residential development of 50 dwellings at a Site situated off Shepley Road, Stocksmoor, West Yorkshire. The Site has been subject to a UKHab Survey, species assessment and desk study to establish the baseline ecological conditions of the Site and its value.

The ecological studies have found that the Site is not designated as a statutory site and that none are present nearby with the potential to be affected. There are 11 non-statutory designated sites within 2 km of the Site, one of which is immediately adjacent to the eastern Site boundary: Upper and Lower Stone Woods Local Wildlife Site. This site also known as Shepley Mill Wood is also designated as Ancient woodland and Priority Habitat, deciduous woodland.

The UKHab Survey identified two modified grassland fields with an area of bramble scrub to the south and bracken and a stream in the northeastern corner of the Site. The stream was considered important at a local level. The Site is considered important at a local level for breeding birds, reptiles and bats. Two Schedule 9 invasive non-native species (INNS): rhododendron and cotoneaster were identified on Site and subject to further assessment.

During construction, fencing shall be installed to maintain as large a buffer as possible, at least 15 m with the eastern woodland. The proposed residential scheme has been designed with all residential development 50 m from the woodland and the nearest installation will be the foul water pump station 30 m from the woodland. Air, noise and light pollution measures will be in place during construction and a sensitive lighting scheme shall be adopted. The northern and eastern buffer areas will comprise of grassland habitats which will have been enhanced as well as occasional tree planting.

A Pollution Prevention Plan will be implemented to ensure no significant negative impacts on the stream habitat during construction. The new headwall installation shall be undertaken in low flow conditions, shall limit bank disturbance of the existing watercourse and minimise the construction time period. No operational impacts are anticipated.

A pre-commencement survey for INNS shall be undertaken and strict biosecurity measures shall be implemented along the western and northern boundary. A pre-commencement survey for reptiles shall also be undertaken. Impacts on reptiles, nesting birds and bats are to be avoided or managed through timing of works and implementation of measures within a Construction Environmental Management Plan.

The retained scrub, planting of 78 trees, 552 of hedgerow and 0.5652 ha of vegetated gardens will provide additional habitat for nesting birds and bats. Integrated bat boxes and nest boxes will both be installed on 10% of the 50 plots.

No significant cumulative effects were identified, and it is concluded that the development proposals would be compliant with national and local planning policies and relevant legislation. Provided that the avoidance and mitigation measures as set out in this EclA are implemented in full, residual effects on important ecological features will not be significant and there will be minor positive effects for breeding birds and bats.

A Biodiversity Net Gain (BNG) assessment was also undertaken which identified the baseline value of the Site to be 6.27 Area Habitat Units and 0.30 Watercourse Units with no Hedgerow Units. The post-development value of the Site was calculated to be 6.97 Area Habitat Units resulting in a +11.10% net gain. A gain of 0.91 Hedgerow Units would be achieved on-Site. The proposed watercourse enhancements were not sufficient to deliver the necessary gains and therefore, 0.03 watercourse units will be required. This shall be secured by a planning condition for the preparation and submission of a biodiversity gain plan.



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Figure 1 UKHab Baseline Map

Appendix A Preliminary Ecological Appraisal

Appendix B Relevant Legislation and National Planning Policy

B.1 Relevant Legislation

B.1.1 Environment Act 2021

B.1.2 Conservation of Habitats and Species Regulations 2017 (as amended)

B.1.3 Natural Environment and Rural Communities Act 2006



B.1.4 Protection of

B.1.5 Wildlife and Countryside Act 1981

B.2 Relevant Planning Policy

Appendix C Desk Study Data

Appendix D Statutory Biodiversity Condition Assessments

Appendix E Statutory Biodiversity Metric (supplied separately in Excel format)

Appendix F Landscape Masterplan

Acronyms and Abbreviations

BAP	Biodiversity Action Plan
BNG	Biodiversity Net Gain
CIEEM	Chartered Institute of Ecology and Environmental Management
EclA	Ecological Impact Assessment
EPsLs	European Protected Species Licences
GCN	Great Crested Newt
GLTA	Ground Level Tree Assessment
HAPs	Habitat Action Plans
INNS	Invasive Non-Native Species
LWS	Local Wildlife Site
NERC	Natural Environment and Rural Communities
PEA	Preliminary Ecological Appraisal
PRF	Potential Roosting Feature
RCA	River Condition Assessment
SAC	Special Area of Conservation
SPA	Special Protection Area
SQE	Suitably Qualified Ecologist
SSSI	Site of Special Scientific Interest
UKHab	UK Habitat Survey
WYES	West Yorkshire Ecology Service



1.0 Introduction

SLR Consulting was commissioned by Newett Homes Limited to prepare an Ecological Impact Assessment (EclA) on the 26th February 2024 of an approximately 2.49 ha site off Shepley Road to the east of Stocksmoor, West Yorkshire, HD4 6XW (approximate central OS grid reference SE 18467 10769).

A Preliminary Ecological Appraisal (PEA) was previously undertaken of the site by FPCR in December 2022 (Appendix A), which has been reviewed in the preparation of this EclA. This report has also been informed by a desk study, and a UK Habitat survey and condition assessment (including River Condition Assessment), undertaken in February – April 2024.

This report (with the accompanying excel metric sheet) also provides a Biodiversity Net Gain (BNG) Assessment (Section 5.0).

1.1 Site Description

The proposed development site (herein referred to as the 'Site') comprises of two modified grassland fields, with the smaller located on a steep bank to the east. A 20 m long watercourse flows eastwards in the northeastern corner of the Site into the adjacent ancient woodland. The Site is bounded to the north by a railway line, to the west by residential properties and Shepley Road, and to the south with fields and another residential property.

The wider landscape comprises of grassland fields and woodland, with Kirkburton to the north and Holmfirth to the southwest.

1.2 Details of the Proposed Development

The proposed development comprises of 50 new residential properties and associated infrastructure, a new play area and Public Open Space, a foul water pump station, and landscaping areas. A new outfall from the Site into the existing watercourse in the northeastern corner will be created.

1.3 Purpose of this Report

The purpose of this report is to:

- To describe the baseline data collection and assessment methods used;
- To summarise the baseline ecological conditions;
- To identify and describe all potentially significant ecological effects associated with the proposed development;
- To set out the design, mitigation and compensation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects;
- To identify how mitigation and compensation measures will/could be delivered;
- To provide an assessment of the significance of any residual effects in relation to the effects on biodiversity and the legal and policy implications; and
- To identify appropriate enhancement measures and how these will/could be delivered.



1.4 Evidence of Technical Competence and Experience

This report was written by SLR Consulting Senior Ecologist Miss Lucy Sumner. Miss Lucy Sumner is a Qualifying Member of the Chartered Institute of Ecology and Environmental Management (CIEEM), with over 5 years' relevant experience within ecological consultancy.

This report has been reviewed by Hazel Douglas MBiolSci MCIEEM. Hazel is an Associate ecologist with ten years' experience in ecological consultancy. Hazel is an experienced botanist and is proficient in a variety of ecological survey techniques. Hazel also holds Natural England survey licences for bat and great crested newt. Hazel has extensive experience in ecological assessment and reporting including BNG and Ecological Impact Assessment.

1.5 Relevant Legislation and Policy

Generic national Legislation and Policy has been provided in Appendix B. Relevant extracts from local Policy and the local Biodiversity Action Plan have been provided below.

1.1.1 Kirklees Local Plan

The Kirklees Local Plan was adopted on 27 February 2019 and comprises the strategy and policies document, allocations and designations document and associated policies map¹.

Policy LP30

Biodiversity & Geodiversity

The council will seek to protect and enhance the biodiversity and geodiversity of Kirklees, including the range of international, national and locally designated wildlife and geological sites, Habitats and Species of Principal Importance and the Kirklees Wildlife Habitat Network.

South Pennine Moors

Proposals which may directly or indirectly compromise achieving the conservation objectives of a designated or candidate European protected site will not be permitted unless the proposal meets the conditions specified in Article 6 (3) - (4) of the Habitats Directive.

Statutory Designated Sites

Statutory designated sites, including the South Pennine Moors Special Protection Area (SPA) and Special Area for Conservation (SAC) and Sites of Special Scientific Interest, are already highly protected through existing laws and legislation. In accordance with legislation, the Council will seek to ensure that harmful impacts to these areas as a result of development proposals are avoided.

Development proposed within or outside a designated Site of Special Scientific Interest, likely to have an adverse effect on the site's special nature conservation features, will not normally be permitted.

Exceptionally development will be allowed where the benefits of the development clearly outweigh the impacts on the site's special conservation features and measures are provided to mitigate harmful impacts.

The Dark Peak Nature Improvement Area

¹ Kirklees Council (2019) Kirklees Local Plan Strategy and Policies Adopted 27 February 2019. Available at: <https://www.kirklees.gov.uk/beta/planning-policy/pdf/local-plan-strategy-and-policies.pdf> [Accessed: 16/4/24].



Proposals that contribute to the aims and objectives of the Dark Peak Nature Improvement Area will in principle be supported, subject to other policies in this plan. Development likely to have an adverse impact on the aims and objectives of the NIA will not be permitted.

Local Designated Sites & Important Local Ecological Features

Proposals having a direct or indirect adverse effect on a Local Wildlife Site or Local Geological Site, Ancient Woodland, Veteran Tree or other important tree, will not be permitted unless the benefits of the development can be clearly shown to outweigh the need to safeguard the local conservation value of the site or feature and there is no alternative means to deliver the proposal. In all cases, full compensatory measures would be required and secured in the long term.

Habitats and Species of Principal Importance

Proposals will be required to protect Habitats and Species of Principal Importance unless the benefits of the development clearly outweigh the importance of the biodiversity interest, in which case long term compensatory measures will need to be secured.

Biodiversity and Development

Development proposals will be required to:-

- (i) result in no significant loss or harm to biodiversity in Kirklees through avoidance, adequate mitigation or, as a last resort, compensatory measures secured through the establishment of a legally binding agreement;*
- (ii) minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;*
- (iii) safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;*
- (iv) establish additional ecological links to the Kirklees Wildlife Habitat Network where opportunities exist; and*
- (iv) incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone.*

Kirklees Biodiversity Strategy and Biodiversity Action Plan

The Kirklees Biodiversity Strategy sets out how Kirklees Council and its partners will meet the objectives set out in the Biodiversity Action Plan (BAP)².

The BAP provides action plans for habitats and species, along with guidance for management of habitats, the following of which may be of relevance to the Site: flowering grassland, woodland and rivers. The Site is not located within a Biodiversity Opportunity Zone and none of the species action plans are of relevance for this Site.

² Kirklees Council (2007) Other policies and strategies. Available at: <https://www.kirklees.gov.uk/beta/delivering-services/policies-and-strategies.aspx> [Accessed: 16/4/24].



2.0 Methodology

2.1 Baseline Data Collection

2.1.1 Desk Study

The West Yorkshire Ecology Service (WYES) was commissioned to undertake a search of statutory and non-statutory designated sites for nature conservation and protected/ notable species for the Site and land within a 2 km radius of the central grid reference. This data was obtained on the 27th February 2024. Only records from the last 10 years have been included within this report.

A data request by [redacted] was also provided on 15th February 2024 for records within 1 km of the central grid reference. Due to the confidential nature of [redacted] records, this data is not provided within this report; however, [redacted] can be made available on request.

Information on statutory designated sites for nature conservation and geological interest and granted European Protected Species Licences (EPSLs) for the Site and 2 km radius, was also obtained from the MAGIC website managed by Natural England on the 26th February 2024. The search radius was extended to 10 km for international statutory designations such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar sites.

2.1.2 Field Survey(s)

2.1.2.1 Phase 1 Habitat survey

A Phase 1 Habitat survey was undertaken by FPCR Assistant Ecologist, Hilary Jenkinson, the exact survey date is not detailed in the PEA; however, it is assumed to be around December as the report was issued on 20th December 2022 (Appendix A). This survey included the full application Site.

2.1.2.2 UKHab survey and condition assessment

A UK Habitat Survey was conducted on 28th February 2024 by Miss Lucy Sumner, SLR Senior Ecologist, to identify the broad habitat types present in accordance with the UK Habitat Survey (UKHab) V2 methodology³. Condition assessments were undertaken of each habitat, in line with the statutory biodiversity metric condition assessments⁴. The methodology was extended to include searches for features of interest, such as notable or protected species of flora and fauna, as well as habitats capable of supporting such species, including the following:

- An assessment of the Site's potential to support breeding birds, great crested newt (*Triturus cristatus*); reptiles, water vole (*Arvicola amphibius*), otter (*Lutra lutra*), and a notable invertebrate assemblage;
- An assessment of whether the Site supports, or has potential to support, priority species or habitats, particularly those which are rare in the UK or West Yorkshire;

³Butcher, B., Carey, P., Edmonds, R., Norton, L., Treweek, J. (2023). The UK Habitat Classification System. V2 <https://ukhab.org> [Accessed: 27/02/24].

⁴ Natural England (2024) The Statutory Biodiversity Metric Tools and Guides. Available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides> [Accessed: 16/4/24].



- Evidence of (such as footprints, pathways,) was searched for within the Site boundary, based on standard methods⁵, and within 30 m where access is possible; and
- A Ground Level Tree Assessment (GLTA) of trees within the Site boundary and those which overhung the Site boundary was undertaken following the Bat Conservation Trust Guidelines⁶. A search was undertaken for features that could be used by roosting bats (Potential Roost Features (PRFs)). Each tree was then assigned a level of bat roosting potential (no PRFs, PRF-I or PRF-M) as shown in Table 2-1. No buildings were present on the Site.

Table 2-1: Guidelines for Categorising the Potential Suitability of PRFs within Trees for Bats

Suitability	Description of Potential Roosting Features (PRFs)
No PRFs	No PRFs noted within a tree which could be exhaustively searched from the ground.
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Plant species listed in Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) were also searched for⁷.

2.1.2.3 River Condition Assessment

A River Condition Assessment (RCA) survey is used to assess the type and condition of watercourses present on a site. RCA surveys involve a field survey element and a desk study element. The field surveys are carried out using the “MoRPH” survey methodology⁸⁹ in which field information for subreaches of a stream or river are collected across at least 20% of the total stream length within the area of proposed development.

A desk-based study will also classify the stream into one of thirteen river “types” based on geomorphological characteristics. The results of the MoRPH field surveys will be combined with the desk-based study of river type to present a final condition result for the stream.

River condition is assessed using 32 condition indicators that are automatically extracted from MoRPh5 field surveys. Each river condition indicator is assigned a score of 0 to +4 (positive indicators) or 0 to -4 (negative indicators). Positive indicators represent the diversity and abundance of physical habitats offered by vegetation, sediment, vegetation-sediment-

⁵ Harris, S, P. Cressell, and D. Jeffries. 1989. . London: The Mammal Society.

⁶ Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

⁷ Whilst invasive non-native species were searched for, this report is not a dedicated invasive species survey. The detectability of invasive species can be seasonally variable. Whilst every effort is made, this preliminary survey does not provide a conclusive status of invasive non-native species within the Site, and the client may wish to instruct a dedicated invasive species survey prior to development.

⁸ Shuker, L. and Gurnell, A. (2022) The MoRPH Survey Technical Reference Manual 2022 version. Available at: <https://docs.modularriversurvey.org/pro> [Accessed: 18/3/24].

⁹ Gurnell, A. et al., (2024) A GUIDE TO ASSESSING RIVER CONDITION Part of the Rivers and Streams Component of the Biodiversity Metric Watercourse Module for calculating Biodiversity Net Gain. Available at: <https://docs.modularriversurvey.org/pro> [Accessed: 18/3/24].



related physical features, and hydraulic habitats that can be observed at low flow. Negative indicators represent the extent and severity of local human interventions or pressures.

The Preliminary Condition Score for each MoRPH5 subreach is calculated as the sum of the average of the positive condition indicator scores and the average of the negative condition indicator scores for the subreach. The Preliminary Condition Score is translated into a Final Condition Score (5-good, 4- fairly good, 3-moderate, 2-fairly poor, 1-poor) based upon the River Type.

In addition, the “shape” factor is considered in the condition assessment, this indicates the degree to which a river is hydrologically/ecologically connected to its flood plain – if a channel is too deep relative to its width to be hydrologically connected, then the final condition score is downgraded.

Field Survey – MoRPH surveys

The MoRPH5 field surveys were undertaken on 28th February 2024 by Lucy Sumner. The field survey covered 20% of the full reach length onsite, in accordance with guidelines, and MoRPH surveys were spaced across the full reach extent to cover any variations and features in the watercourse. Where possible, both banks were accessed for the assessment, and any limitations with regards to the surveys were noted.

Desk Study – River Type

The River Type calculation is a desk-based exercise used to classify the river into a type, in order to provide a baseline against which to assess the river’s condition. This desk study was completed on 29th February 2024 and used Google Earth and information from Environment Agency’s Catchment Data Explorer to inform the study.

2.1.2.4 Biodiversity Net Gain Assessment

The results of the UKHab survey and condition assessments were analysed within the Statutory Biodiversity Metric to calculate the biodiversity value of the Site at baseline.

The Biodiversity Metric uses habitat as a proxy for biodiversity and its primary application is to provide planners and developments with a method of establishing how much and what type of habitats should be created or enhanced in order to ensure that the impacts of a developments do not result in a net loss of biodiversity. Habitats are assigned the following ‘multiplier scores’ which affect their value:

- Distinctiveness: A measure of the type, importance and relative rarity of a habitat;
- Condition: A measure of the present, or predicted, condition of a habitat type; and
- Strategic significance: How a habitat/area is regarded within Local Planning Policy.

2.1.3 Limitations

2.1.3.1 Desk Study

Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that important habitats or protected species not identified during the data search do in fact occur within the vicinity of the site. Interpretation of maps and aerial photography has been conducted in good faith, using recent imagery, but it has not been possible to verify the accuracy of any statements relating to land use and habitat context outside of the field study area.

2.1.3.2 Field Survey(s)

Both of the field surveys were undertaken at a sub-optimal time of the year for botanical surveys and for many protected species, such as nesting birds and reptiles: survey in



December by FPCR and February by SLR. An assessment of the suitability of the Site to support these species was therefore made. The habitat types were of low distinctiveness and it was possible to assess the broad habitat type during February.

It was not possible to access land within 30 m of the Site boundary to the west as these were private residential gardens, and to the north as it was a railway line. Views were possible of the gardens from the Site and in certain areas where the northern dry-stone wall permitted views (i.e. gaps created from fallen stones). Land to the north of the Site presents a significant drop to the railway line below and it is considered that the views where possible provided substantial assessment as to the likely presence of [redacted]. A further pre-construction survey has been recommended; further details are outlined below.

An ecological study provides only a “snapshot” of the conditions prevailing at the time of survey. Lack of evidence of a particular species does not necessarily preclude them from being present on Site at a later date. Whilst it is considered unlikely that any significant evidence of activity by protected or notable species has been overlooked, due to the nature of the subjects of ecological surveys it is feasible that species that use the Site may not have been recorded by virtue of their seasonality, habit or random chance. It is considered unlikely however, that additional surveys of the Site at this time would materially alter the conclusions of this report.

MoRPH surveys are best conducted in low flow conditions and during spring and summer to capture information on both the vegetative and physical properties of the stream and its margins. The individual MoRPH surveys are intended to be appropriately spread across the affected watercourse extent, with a focus also on areas most likely to be subject to interventions and areas representing a “control” site with limited impacts. The MoRPH surveys are designed to be undertaken from the bank top, i.e., no entry into the water is required. In addition, the survey can be undertaken from one bank only, or both banks, depending on accessibility.

The survey was undertaken in a sub-optimal time of year as limited vegetation would have been established in February; however, views of the bank and bed were not obscured. Limitations encountered within this survey were oriented around dense vegetation and large trash obscuring visibility of the channel bed at the eastern Site boundary. Consequently, a precautionary approach was taken when surveying areas of poor visibility and the large trash was recorded as part of the survey. In addition, access was limited to the right bank outside of the Site boundary, as it was not possible to cross the watercourse safely. However, it was possible to access both banks within the Site boundary and the watercourse was considered homogenous. Therefore, it is not considered that these limitations have significantly altered the assessment.

2.2 Assessment Approach

The ecological evaluation approach used in this report is based on Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (“CIEEM guidelines”)¹⁰.

2.2.1 Important Ecological Features

Ecological features can be important for a variety of reasons and the rationale used to identify them is explained in the text. Importance may relate, for example, to the quality or extent of the site or habitats therein; habitat and/ or species rarity; the extent to which such habitats and/ or species are threatened throughout their range, or to their rate of decline.

¹⁰ CIEEM (2022) Guidelines for Ecological Impact Assessment in the UK and Ireland. Available at: <https://cieem.net/wp-content/uploads/2018/08/ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf>



2.2.1.1 Determining Importance

The importance of an ecological feature should be considered within a defined geographical context. The following frame of reference has been used in this case, relying on known/published accounts of distribution and rarity where available, and professional experience:

- International;
- National (i.e. UK/ England etc.);
- Regional (i.e. West Yorkshire);
- County (i.e. Kirklees); and
- Local (i.e. within circa 2 km).

The above frame of reference is applied to the ecological features identified during the desk study and surveys to inform this report.

The value of habitats has been measured against published selection criteria where available. Examples of relevant criteria include: descriptions of habitats listed on Annex 1 of the Habitats Directive; descriptions of habitats of principal importance for biodiversity under Section 41 of Natural Environment and Rural Communities (NERC) Act 2006; Local Wildlife Site Selection Criteria; and Habitat Action Plans (HAPs) contained within Local Biodiversity Action Plans. The Local Wildlife Site Selection (LWS) Criteria was also reviewed¹¹.

In assigning a level of value to a species, it is necessary to consider its distribution and status, including a consideration of trends based on available historical records. Reference has therefore been made to published lists and criteria where available. Examples of relevant lists and criteria include: species of European conservation importance (as listed on Annexes II, IV and V of the Habitats Directive or Annex 1 of the Birds Directive); species of principal importance for biodiversity under Section 41 of the NERC Act 2006 and Birds of Conservation Concern (BoCC)¹².

For the purposes of this report ecological features of local importance or greater and/ or subject to legal protection have been subject to detailed assessment. Effects on other ecological features are considered unlikely to be significant in legal or policy terms.

2.2.2 Impact Assessment

The impact assessment process involves the following steps:

- identifying and characterising potential impacts;
- incorporating measures to avoid and mitigate (reduce) these impacts;
- assessing the significance of any residual effects after mitigation;
- identifying appropriate compensation measures to offset significant residual effects (if required); and
- identifying opportunities for ecological enhancement.

When describing impacts, reference has been made to the following characteristics, as appropriate:

¹¹ West Yorkshire Local Sites Partnership (2023) West Yorkshire Local Wildlife Site Selection Criteria. Available at: <https://www.wyjs.org.uk/media/70687/20230123-wy-local-wildlife-site-selection-criteria-10012023.pdf> [Accessed 27/02/24].

¹² Stanbury, A. *et al.*, (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, 114: 723-747.



- Positive or negative;
- Extent;
- Magnitude;
- Duration;
- Timing;
- Frequency; and
- Reversibility.

The impact assessment process considers both direct and indirect impacts: direct ecological impacts are changes that are directly attributable to a defined action, e.g. the physical loss of habitat occupied by a species during the construction process. Indirect ecological impacts are attributable to an action, but which affect ecological resources through effects on an intermediary ecosystem, process or feature, e.g. the creation of roads which cause hydrological changes, which, in the absence of mitigation, could lead to the drying out of wet grassland.

Consideration of conservation status is important for evaluating the effects of impacts on individual habitats and species and assessing their significance:

- Habitats – conservation status is determined by the sum of the influences acting on the habitat that may affect its extent, structure and functions as well as its distribution and its typical species within a given geographical area.
- Species – conservation status is determined by the sum of influences acting on the species concerned that may affect its abundance and distribution within a given geographical area.

2.2.3 Significant Effects

The concept of ecological significance is addressed in paragraphs 5.24 through to 5.28 of CIEEM guidelines. Significance is a concept related to the weight that should be attached to effects when decisions are made. For the purpose of EclA, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local and the scale of significance of an effect may or may not be the same as the geographic context in which the feature is considered important.

2.2.4 Cumulative Effects

Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location. Cumulative effects can occur where a proposed development results in individually insignificant impacts that, when considered in-combination with impacts of other proposed or permitted plans and projects, can result in significant effects.

2.2.5 Avoidance, Mitigation, Compensation and Enhancement

When seeking mitigation or compensation solutions, efforts should be consistent with the geographical scale at which an effect is significant. For example, mitigation and compensation for effects on a species population significant at a county scale should ensure no net loss of the population at a county scale. The relative geographical scale at which the effect is significant will have a bearing on the required outcome which must be achieved.



Where potentially significant effects have been identified, the mitigation hierarchy has been applied, as recommended in the CIEEM Guidelines. The mitigation hierarchy sets out a sequential approach beginning with the avoidance of impacts where possible, the application of mitigation measures to minimise unavoidable impacts and then compensation for any remaining impacts. Once avoidance and mitigation measures have been applied residual effects are then identified along with any necessary compensation measures, and incorporation of opportunities for enhancement.

It is important for the EclA to clearly differentiate between avoidance mitigation, compensation and enhancement and these terms are defined here as follows:

- Avoidance is used where an impact has been avoided, e.g. through changes in scheme design;
- Mitigation is used to refer to measures to reduce or remedy a specific negative impact *in situ*;
- Compensation describes measures taken to offset residual effects, i.e. where mitigation *in situ* is not possible; and
- Enhancement is the provision of new benefits for biodiversity that are additional to those provided as part of mitigation or compensation measures, although they can be complementary.



3.0 Baseline Ecological Conditions

Section 3.0, in part, refers to the WYES data search, a copy of which has been provided as Appendix C.

3.1 Statutory Designated Sites

The Site and its immediate surroundings do not contain any statutory designated sites. There are no international statutory designations (such as SACs, SPAs or Ramsar sites) within 5 km of the Site, and there are no national statutory designations (such as Sites of special Scientific Interest (SSSI) or National Nature Reserves (NNR)) within 2 km of the Site..

The closest international statutory designation is Peak District Moors (South Pennine Moors Phase 1) SPA, which lies c. 7.6 km south-west of the Site, and during the bird breeding season, supports approximately 2% of the UK breeding populations of golden plover (*Pluvialis apricaria*), merlin (*Falco columbarius*), and short-eared owl (*Asio flammeus*). It is considered that since the scale of the proposed development is small, is distant from the SPA, and does not support similar habitats, there would be no impact on the SPA.

The Site lies within the impact risk zone of two distant SSSIs: Denby Grange Colliery SSSI, situated 9.3 km north-east; and Dark Peak SSSI, situated 7.6 km south-west. However, the nature of the proposed development does not fall into any of the restricted development categories associated with these IRZs and no further consideration of potential effects is required.

Therefore, statutory designated sites are not considered further within this report.

3.2 Non-Statutory Designated Sites

The Site itself does not contain non-statutory designated sites. However, there is one Local Wildlife Site (LWS) located on the eastern Site boundary along with a further 10 LWSs within 2 km of the Site (Table 3-1).

Table 3-1: Non-statutory designated sites within 2 km

Site Name and Designation	Qualifying criteria	Distance from Site ¹³
Upper and Lower Stone Woods LWS	Wd1 – ancient & semi-natural woodland and Wd3 – species-rich acid woodland.	0 km – immediately adjacent to eastern Site boundary
Birks Wood LWS	Wd5 – native bluebell cover.	0.3 km north
Brown's Knoll Meadows LWS	Gr1 – MG5 grassland, Gr3 – Species rich neutral grassland, Wd1 – Ancient and semi-natural woodland, Wd5 – Extensive native bluebell cover and Mh2 – Diverse range of habitats.	0.5 km northwest
Shepley Mill Wood LWS	Wd5 – Native bluebell cover.	0.7 km east
Thunderbridge LWS	Gr3 - Species rich neutral grassland and Gr4 - Species rich acid to neutral grassland.	1 km north

¹³ At its closest point, measured 'as the crow flies'.



Site Name and Designation	Qualifying criteria	Distance from Site ¹³
Clough Wood LWS	Wd1 – Ancient semi-natural woodland.	1 km northwest
Gelder Wood LWS	Wd3 – Species rich acid woodland.	1 km east
Lumb House LWS	Gr3 – Species rich neutral grassland, Gr4 – Species rich acid grassland and Fe3 – Species rich fen.	1.1 km northwest
Shelley Wood LWS	Wd1 – Ancient semi-natural woodland and Wd3 – Species rich acid woodland.	1.2 km northeast
Allen Wood LWS	Wd1 – Ancient semi-natural woodland and Wd3 – Species rich acid woodland.	1.5 km northeast
Yew Tree Wood LWS	Wd3 - Species rich acid woodland and Vp3 - County rare species (<i>Galium uliginosum</i>)	2 km south

Due to the proximity of the Upper and Lower Stone Woods LWS to the Site, this regionally important non-statutory designated site has been taken forward for further assessment.

Birks Wood LWS is located north of the railway line which runs along the northern Site boundary and presents a significant barrier for impacts on the woodland habitat. The diverse range of habitats at Brown's Knoll Meadows LWS is noted to potentially provide good habitat for amphibians. The railway line presents a significant barrier for terrestrial movement by amphibians and there are no hydrological connections to the Site. The other regionally important LWSs are all located 0.7 km or further from the Site and are separated from the Site by the railway line with no apparent ecological links, such as hydrological connectivity. It is therefore considered unlikely that these LWSs would be significantly adversely affected by the proposed development, and are therefore scoped out from further assessment.

3.3 Ancient Woodland and Priority Habitats

The Site does not fall within the Kirklees Wildlife Habitat Network.

Shepley Mill Wood, also known as Upper and Lower Stones Woods LWS, is located immediately adjacent to the eastern Site boundary is designated as Ancient Woodland and Priority Habitat, deciduous woodland. This priority habitat also occurs to the north of the Site, largely associated with the LWSs described above.

Additional Priority Habitats within 1 km of the Site include lowland meadows and good quality semi improved grassland, which are associated with Brown's Knoll Meadows LWS. Due to the location 0.5 km northwest and lack of ecological connectivity these priority habitats are not considered further within this report.

Ancient Woodland and priority habitat, deciduous woodland, are regionally important and are considered further due to the proximity to the Site.

3.4 Habitats

The Phase 1 habitat survey undertaken by FPCR as part of the PEA identified improved grassland, semi-improved grassland, dense scrub, scattered scrub, bracken and running water within the Site. The UKHab survey identified two modified grassland fields with an



area of bramble scrub to the south and bracken and a stream in the northeastern corner of the Site, as mapped in Figure 1, and described in the following sections.

3.4.1 Modified grassland (g4)

The Site mainly comprises of two modified grassland areas. The larger (Plate 1, B1 in Figure 1) showed signs of sheep grazing (secondary code 102) as wool was noted on the boundary fences and walls, though there were no sheep present at the time of survey. This grassland is dominated by cock's-foot (*Dactylus glomerata*) with other occasional species including creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum* agg.), rough-stalked feather moss (*Brachythecium rutabulum*), creeping thistle (*Cirsium arvense*) and broad-leaved dock (*Rumex obtusifolius*). The sward was closely cropped, and areas of bare ground were evident.



Plate 1 – View of larger modified grassland area.

This grassland area is assessed as being in **poor condition**, as it passes four condition assessment criteria (C, D, F and G) but does not pass criterion A, which is essential for achieving moderate or good condition (Appendix D).

The smaller grassland (Plate 2, B4 in Figure 1) was also dominated by cock's-foot with frequent ribwort plantain (*Plantago lanceolata*), red fescue (*Festuca rubra*) and broad-leaved dock, and occasional creeping buttercup, clover (*Trifolium* sp.) and ground-ivy (*Glechoma hederacea*). It also included areas of scattered scrub (secondary code 10) to the east, likely where the adjacent woodland had self-seeded. Scrub species included hawthorn (*Crataegus monogyna*) and silver birch (*Betula pendula*) saplings.





Plate 2 – View of smaller modified grassland area.

This grassland area is considered to be in **moderate condition**, as it passes five condition assessment criteria (A, C, D, F and G) (Appendix D).

Both of the grassland areas are not considered locally important and are ubiquitous in the wider landscape, and are relatively species-poor. Therefore these habitats are not considered further.

3.4.2 Bramble scrub (h3d)

A patch of dense bramble scrub was present within the Site on the southern boundary, with occasional alder (*Alnus glutinosa*) saplings and dog rose (*Rosa canina*) (Plate 3). Due to its species-poor nature and ubiquitous status in the local landscape, this habitat is assessed as having less than local importance and has not been considered further.



Plate 3 – Bramble scrub.

3.4.3 Bracken (g1c)

A small area of bracken was present in the northeastern corner of the Site, upstream of the stream. Due to its species-poor nature and ubiquitous status in the local landscape, this



habitat is assessed as having less than local importance and has not been considered further.

3.4.4 Stream (r2b)

A small stream outfalls from the northern railway line into the Site in the northeastern corner into a water bath and flows eastwards to outfall into Stone Wood Dike within the adjacent woodland. The stream showed signs of ochre deposition (Plates 4 and 5). A total length of 20 m falls within the Site boundary.



Plate 4 – Railway outfall into Site.



Plate 5 –View downstream of stream in northeastern corner.

The left bank of the stream comprises of the steep railway embankment and woodland with a dry-stone wall. The right bank is dominated by bramble scrub. The MoRPh River Type was B – Straight/sinuuous to cascade, with the average bed material size as boulder. The RCA concludes that the stream is in **fairly good condition**. Fencing material was present at the eastern Site boundary which obstructed flows resulting in scouring of the right bank (Plate 6).





Plate 6 – Fencing material obstructing flows.

This habitat is considered locally important due to its hydrological connectivity to Stone Wood Dike and is therefore taken forward for further assessment.

3.5 Species

3.5.1 Plants (including Schedule 9 species)

There were no records of invasive non-native species (INNS) returned by WYES within 2 km of the Site. Rhododendron (*Rhododendron ponticum*) was noted off-Site within the gardens to the north-west of the Site (Plate 7; Target Note (TN) 1 in Figure 1). The cotoneaster referred to in the PEA was identified as a Schedule 9 species: small-leaved cotoneaster (*Cotoneaster microphyllus*), TN2 at approx. OS Grid Reference SE 18446 10845. These INNS have low intrinsic conservation value as they out-compete native flora and are therefore assessed as less than local importance; however they are considered further within this report due to the legislative requirement to avoid their spread in the wild.





Plate 7 – Rhododendron in residential gardens on northwestern Site boundary (TN1 in Figure 1).

3.5.2 Invertebrates

There were no invertebrate records returned by WYES within 2 km of the Site. The grasslands on Site offered limited species diversity to support a locally important population of invertebrates. These habitats are well represented in the wider landscape and therefore invertebrates have not been assessed further within this report.

3.5.3 Amphibians

There were no records returned for amphibians by WYES within 2 km of the Site and no waterbodies were identified on Site or within 250m. Great crested newt are therefore concluded to be absent from the Site. The grassland fields and lack of standing waterbodies indicates that the Site is sub-optimal for other amphibian species. Therefore, amphibians have been omitted from further assessment.

3.5.4 Reptiles

There were no records returned for amphibians by WYES within 2 km of the Site. The main grassland area on Site was considered sub-optimal for reptiles due to its short sward. The grassland to the east offered limited suitability with a taller sward and proximity to woodland and scrub. Suitable habitats for reptiles are well-represented in the wider landscape and the Site is not considered to support a locally significant population of reptiles. However, due to their protected status, reptiles have been brought forward for further consideration, as a precaution.

3.5.5 Birds

Seven bird species were returned by the WYES including common species and one species listed under Section 41 of the NERC Act, lapwing (*Vanellus vanellus*), 1.8 km north-west of the Site. The Site offers limited suitability to lapwing, due to its relatively small size and enclosed nature; therefore, lapwing and other ground nesting species, have been scoped out of further assessment. Whilst the Site is considered unlikely to support an important population of birds, a small number of farmland or urban fringe birds could breed in scrub and woodland along the boundaries. Given the potential of the Site to support some nesting birds, and the legal protection afforded to bird nests, nesting birds are considered further in this report.



3.5.6 Mammals

3.5.6.1 Bats

Five bat species records were returned by WYES within 2 km, including a potential common pipistrelle (*Pipistrellus pipistrellus*) roost located 772 m to the east, with the closest confirmed roost being 1.16 km north-west of the Site, used by brown long-eared bat (*Plecotus auritus*) and common pipistrelle. Both of which are sufficiently distanced from the Site to remain unaffected by the proposed works.

The Site itself offers limited commuting and foraging opportunities as it comprises grassland; however, the northern and eastern boundaries of the Site offer moderate bat commuting and foraging habitat due to woodland connectivity north and south as well as along the railway line. Three trees immediately outside the Site boundary were noted to have PRFs. One oak tree (*Quercus* sp.) with an open hole on one of the branches, which could be used by individual bats or very small numbers (PRF-I) (Plate 8; TN3 in Figure 1).



Plate 8 – Oak tree with PRF-I on northern Site boundary (TN3 in Figure 1).

Two oak trees with PRFs were identified to the southeast corner of the Site (Plate 9; TN4 in Figure 1). One oak tree had torn limbs and was assessed to be PRF-I; and the immediately adjacent tree had a large rot hole, which was considered to be PRF-M.





Plate 9 – Left tree assessed as PRF-I and right tree assessed as PRF-M (TN4 in Figure 1).

Due to the proximity of these trees and suitable commuting and foraging habitat adjacent to the Site, the Site boundaries are considered to have local importance for bats, therefore bats have been taken forward for further assessment.

3.5.6.2

records were returned by WYES within 2 km, with the nearest being 232 m from the Site central grid reference. HDBG also returned 13 records of within 1 km of the Site, all of which are located over 150 m. The nearest record was located within Lower Stone Wood to the east of the Site; however, the precise location will remain confidential.

There was occasional evidence of in the east of the Site

Along the northern boundary were noted at TN2, approximate OS Grid Reference SE 18463 10834 on the northern Site boundary, with a distinctive from the northern railway line over the dry-stone wall and under the wire fence onto Site (Plate 10). No were found on Site or within 30 m of the Site boundary, including within the woodland to the east, though as noted in Section 2.1.3.2, access was limited by residential properties to the west and the railway line to the north. Due to the field signs identified on Site and desk study records, the Site is considered to be of up to local importance for . This species has been considered further within this report.



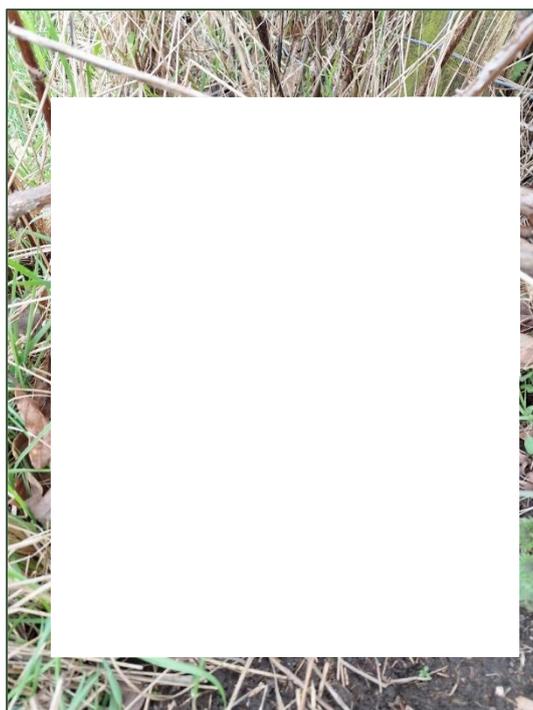


Plate 10 –

3.5.6.3 Otter and Water Vole

No records of otter or water vole were returned by WYES within 2 km of the Site. The small stream on Site offered limited suitability for these riparian mammals due to its small extent and lack of foraging habitat. The stream provides connectivity to more suitable habitats along Stone Wood Dike within the adjacent woodland and therefore these species are not considered to utilise the Site. Otter and water vole have not been taken forward for further assessment.

3.5.6.4 Other Mammals

No records of other mammals were provided by WYES within 2 km of the Site. The grasslands provide suitable habitat for other mammals to commute and forage within, however, it is limited in extent, and no field signs were observed. It is not considered to support a locally significant population of other mammals, and other mammals are therefore not considered further.

3.6 Summary of Important Ecological Features

Ecological features assessed as having local importance or greater, as well as legally protected species are outlined in Table 3-2.

Table 3-2: Summary of Important Ecological Features Subject to Detailed Assessment

Ecological Feature	Scale at which Feature is Important	Comments on Legal Status and/or Importance
Upper and Lower Stone Woods LWS	Regional	Non-statutory designated site which must be protected. Overlapping designations as outlined below in Shepley Mill Wood.



Ecological Feature	Scale at which Feature is Important	Comments on Legal Status and/or Importance
Shepley Mill Wood	Regional	Ancient woodland and priority habitat, deciduous woodland are nationally important habitats. Ancient woodland is also listed as an irreplaceable habitat.
Stream	Local	Locally important habitat providing connectivity to Stone Wood Dike.
Schedule 9 INNS: rhododendron and cotoneaster	Less than local	Under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), this INNS cannot be spread off-Site as a result of the works.
Reptiles	Less than local (if present)	All species are protected from killing/ injury under the Wildlife and Countryside Act 1981 (as amended); some species are NERC Act 2006 Section 41 species of principal importance.
Nesting birds	Less than local	All species are protected whilst nesting under the Wildlife and Countryside Act 1981 (as amended) (some species are also protected from disturbance whilst nesting under Schedule 1); some species are NERC Act 2006 Section 41 species of principal importance. The Site provides suitable nesting habitat.
Bats	Local (Site margins only)	European and UK protected species (Habitats Directive and Wildlife and Countryside Act 1981 (as amended)). Some species are NERC Act 2006 Section 41 species of principal importance.
	Local	



4.0 Assessment of Effects and Mitigation Measures

This section describes the predicted effects and proposed mitigation measures, focussing on the important ecological features identified in Table 3-2. Potential direct and indirect effects during the construction phase as well as the operational phase are assessed.

4.1 Upper and Lower Stones Wood LWS and Shepley Mill Wood Ancient Woodland

This non-statutory designated site and ancient woodland site will not be directly affected by the proposed development. However, due its location adjacent to the eastern Site boundary, there is potential for indirect impacts such as increased recreational access and levels of noise and light disturbance. In the absence of mitigation, there is also the potential for the boundary woodland edge to be damaged during construction works via damage to roots.

During construction, fencing shall be installed to maintain as large a buffer as possible, at least 15 m, and prevent direct impacts on the woodland. All staff operatives shall receive a toolbox talk on the importance of this LWS and ancient woodland site. Due to the hydrological connectivity, water pollution prevention measures shall also be in place to avoid impacts on this woodland as outlined in Section 4.2. Once operational, no impacts are anticipated as the discharge will be uncontaminated water which will travel through an oil separator prior to the outfall.

All other development is located 30 m (in the case of the new foul water pump station), or 50m (in the case of all residential properties), from the woodland. The Site design does not include informal access to the adjacent woodland. This combined with hedge and tree planting along the eastern boundary of residential properties, and the natural topography of the eastern area of the Site, which steeply slopes eastwards, will discourage access from the development to the woodland, and instead encourage access via existing public footpaths from Stone Wood Lane.

There is a risk of indirect effects on this woodland through air, light and noise pollution during construction. The Site fencing, installed to prevent access to the woodland, shall also include dust barriers to prevent dust reaching the woodland. To minimise light disturbance during construction, lighting shall be kept to a minimum. Any lighting required during construction shall avoid directly illuminating the retained boundary vegetation; use of hoods and cowls can be used to direct light away from bat habitat. Noise disturbance shall be minimised wherever possible, through timing of works and choice of equipment. Noise barriers shall be installed during noisy activities which should only be undertaken in daylight hours.

A sensitive lighting scheme shall be adopted which ensures that light spill is minimised along the eastern boundary. Further details are outlined in Section 4.6.

The northern and eastern buffer areas will comprise of grassland habitats which will have been enhanced. These semi-natural habitats will provide valuable habitat for invertebrates, birds and mammals.

With the above mitigation measures in place, no significant adverse residual effect is predicted upon Upper and Lower Stones Wood LWS and Shepley Mill Wood Ancient Woodland.

4.2 Stream

The construction of a new outfall which will join the existing stream in the northeastern corner of the Site will have direct impacts on this habitat. This activity shall be undertaken in low flow conditions, to limit bank disturbance of the existing watercourse and minimise the construction time period, wherever possible. Once operational, no further impacts are



anticipated as the discharge will be uncontaminated water which will travel through an oil separator prior to the outfall.

A Pollution Prevention Plan shall be developed and implemented on Site to ensure no water pollution events occur during construction. This must include the use of silt fencing, cut off drains, or similar measures, on the top of the field to prevent site run off from travelling eastwards down the slope; therefore, protecting both the woodland and stream habitats. The site compound and storage are to be sited at least 10 m from the watercourse with no refuelling within 10 m of the stream or newly created watercourse. Spill kits shall be readily available on Site at key locations, such as adjacent to the stream, and all staff shall be trained in spill response. Further guidance is provided in CIRIA C532, 'Control of water pollution from construction sites: guidance for consultants and contractors'¹⁴.

With the above measures in place, no significant residual effect is predicted and no contravention of wildlife legislation is anticipated.

4.3 Schedule 9 INNS

Two Schedule 9 INNS were identified outside of the Site boundary; however, there is potential for the construction works to spread these species off-Site. Cotoneaster berries are easily spread by birds and rhododendron spreads both vegetatively and by seed. In vegetative terms, this means it can grow by either on suckers growing from the roots or by lateral horizontal growth of the branches, and where these touch the ground, they will root, expanding the area of cover. A pre-commencement INNS survey should be undertaken in May-September to check for any spread of the INNS within the Site boundary.

Strict biosecurity measures will need to be implemented along the western and northern boundary, when working within close proximity to the rhododendron and cotoneaster, and/or in the case that either of the INNS must be cut back.

With the above measures in place, no significant residual effect is predicted and no contravention of wildlife legislation is anticipated.

4.4 Reptiles

In the absence of mitigation, there is a small risk that reptiles (such as the occasional grass snake traversing the Site boundaries) could be killed or injured during Site clearance and construction works.

Given the low numbers of reptiles that may be present, and the availability of areas of suitable habitat in the surrounding areas that would remain unaffected by the works, fencing and translocation are not considered appropriate. Proposed mitigation would therefore involve precautionary working measures that will be adopted during clearance and construction operations, to reduce the risk of inadvertently killing or injuring reptiles to negligible levels, and therefore ensure compliance with the Wildlife and Countryside Act 1981 (as amended), as follows:

- Any features within the construction zone which could act as refugia/ hibernacula (such as log and brash piles) would be carefully checked and removed by hand under the supervision of the Ecological Clerk of Works (ECoW). These features would be moved into boundary habitat which is to be retained. This shall be undertaken in the mid-March – mid-October reptile active period, to avoid potentially disturbing reptiles whilst hibernating.

¹⁴ Masters-Williams *et al.*, (2001) Control of water pollution from construction sites. Guidance for consultants and contractors (C532).



- Ground-level vegetation would then be cut in a directional manner, to encourage any reptiles that may be present to naturally disperse from the working area. Before vegetation clearance, the area would first be subject to a hand search by the ECoW. The cutting will be undertaken in a directional manner from south-west to north-east, to encourage reptiles to naturally disperse into suitable habitat off-Site. Vegetation within the construction footprint would be maintained at ground level for the duration of construction. Ground-level vegetation removal would be undertaken in the mid-March to mid-October reptile active period (with the exception of above-ground tree and shrub habitat which would need to be removed in the September – February period outside of the nesting bird season, or a nesting bird check undertaken).
- If any reptiles are found during this process, they would be carefully moved by the ECoW to an area of suitable habitat well away from the construction zone. Similarly, if any other species are found during this process, such as hedgehog (*Erinaceus europaeus*), they would also be moved to an area of safety outside of the construction zone.

The above precautionary working methods shall also protect other fauna during the Site clearance and construction operations.

Logs and brash from vegetation clearance operations would be used to make habitat piles (a minimum of two) at the bases of the retained boundary hedgerows, in order to provide additional refugia/ hibernacula opportunities.

Following the implementation of the proposed mitigation measures, no significant residual negative effect is predicted and no contravention of wildlife legislation is anticipated.

4.5 Nesting birds

The bramble scrub, scattered trees and bracken on Site could be utilised by nesting birds. Should the grassland be left unmanaged, there is also potential for this to provide nesting habitat. Removal of these habitats shall take place outside of the main bird breeding season (which broadly extends between March and August inclusive) if possible. If this is not feasible, a search for active nests would first be undertaken by a Suitably Qualified Ecologist (SQE) within 24 hours prior to vegetation clearance. If an active nest is identified, it would be left in situ until the breeding attempt was concluded and the young had fledged.

An area of 0.0176 ha of the bramble scrub shall be retained and native mixed scrub will be replanted along the southern boundary (0.0196 ha). In addition, the scheme will plant 78 trees, 552 m of hedgerow and 0.5652 ha of vegetated gardens, which will provide nesting habitat.

With the above measures in place, no significant residual effect is predicted and no contravention of wildlife legislation is anticipated.

4.6 Bats

The habitats immediately adjacent to the Site offer suitable habitats for commuting and foraging bats. These habitats will all be retained; however, there is potential for indirect impacts effects from light pollution during construction as outlined in Section 4.1.

A sensitive lighting scheme shall be adopted which ensures that light spill is minimised along the eastern boundary. Lighting impacts can be minimised by implementing the following¹⁵:

- Use of narrow spectrum light with no UK or warm white light;

¹⁵ Stone, E. L. (2013) *Bats and Lighting. Overview of current evidence and mitigation*. Bats and Lighting Research Project, University of Bristol.



- Direct lighting downwards;
- Use of low-level lighting (e.g. 2 m high lighting columns);
- Use of hoods and cowls to direct lighting onto required areas and not onto adjacent habitats; and
- Restrict hours of light.

The trees with roosting potential will all be retained, and the Site design will maintain a buffer of at least 30 m from the tree with PRF-M roosting potential as well as the temporary construction site fencing. Therefore, implementation of the above measures will ensure no significant negative impacts on roosting bats.

The retained and replanted scrub, planting of 78 trees, 552 m of hedgerow and 0.5652 ha of vegetated gardens will provide suitable habitat for this species.

With the above measures in place, no significant residual impact upon bats is predicted, and no contravention of wildlife legislation is anticipated.

4.7

Due to the field signs identified on Site and suitable habitats adjacent to the Site boundaries, a pre-commencement survey is recommended to determine if any new have been excavated on Site. The Site design will retain these habitats and a buffer will be created along the northern and eastern boundaries, maintaining commuting routes and connectivity.

The following precautionary best practice measures shall also be adopted during construction works:

- Trenches or excavations should if possible be back-filled the same day. If this is not feasible, any trenches/ excavations left open overnight shall be provided with a sloping end or ramp to provide fauna that may fall in a means of escape; and
- Open pipes over 120mm in diameter shall be capped off at night to prevent fauna such as entering.

With the above measures in place, no significant residual effect is predicted and no contravention of wildlife legislation is anticipated.

4.8 Cumulative Effects

There are no current planning applications bordering the Site and applications in the locality all relate to residential extensions within property boundaries. No significant cumulative effects are anticipated.

4.9 Proposed Biodiversity Enhancements

The following enhancement measures are proposed, over and above the proposed mitigation:

- Removal of water bath and large trash within the stream;
- Bank top habitat within the Site boundary will be enhanced from modified grassland to other neutral grassland;
- Bird boxes shall be integrated into 10% of the new residential properties or garages, using designs that integrate into the fabric of the building where possible for better longevity. Bird box designs shall be targeted towards species of conservation concern that are likely to uptake boxes. Specifically, boxes for swift (*Apus apus*), tree



/ house sparrow (*Passer montanus* / *Passer domesticus*) and starling (*Sturnus vulgaris*) would be included, to accord with the Kirklees BAP;

- Bat boxes shall be integrated into 10% of the new residential properties or garages, using designs that integrate into the fabric of the building where possible for better longevity. Bat boxes would be suitable for a range of locally occurring bat species including common pipistrelle (*Pipistrellus pipistrellus*); and
- Hedgehog highways would be created in any proposed garden fences, comprising 15 x 15cm gaps at the base of fencing, to allow hedgehog unimpeded access across the Site.

In accordance with the BNG assessment (see Section 5.0), 552 m of hedgerow shall be created, the retained areas of grasslands will be enhanced, and new area habitats created as described in Section 5.0 to meet the statutory requirement of 10% gain in baseline habitat value for area habitat units and hedgerow units only (Section 5.0).

4.10 Summary of Effects

A summary of the potential impacts, proposed mitigation and residual effects is provided for each important ecological feature included in the assessment in Table 4-1.



Table 4-1: Summary of Potential Impacts, Proposed Mitigation, Residual Effects and Proposed Compensation Measures

Ecological Feature	Potential Impacts	Proposed Mitigation, Compensation and Enhancement	Means of Delivering Mitigation, Compensation and Enhancement	Residual Effects
Upper and Lower Stone Woods LWS	Increased recreational access.	Construction site fencing. Toolbox talk.	Construction Environmental Management Plan. Planning condition.	Not significant, no contravention of wildlife legislation.
Shepley Mill Wood	Air, light and noise pollution, damage to tree roots.	Dust and noise barriers. Minimise lighting and direct away from woodland. Sensitive lighting scheme.		
Stream	Bank disturbance. Water pollution.	Limit bank disturbance. Pollution Prevention measures, using good practice guidance such as CIRIA C532.	Pollution Prevention Plan.	Not significant, no contravention of wildlife legislation.
Schedule 9 INNS: rhododendron and cotoneaster	Spread off Site.	Pre-construction survey. Strict biosecurity measures in place when working in close proximity to INNS.	Construction Environmental Management Plan.	Not significant, no contravention of wildlife legislation.
Reptiles	Small risk of inadvertent injury or killing during Site clearance.	Precautionary working measures during Site clearance operations, under supervision by the ECOW. Creation of log/ brush piles.	Construction Environmental Management Plan.	Not significant, no contravention of wildlife legislation.
Nesting birds	Killing or injuring birds. Damage or destruction of nests.	Removal of potential nesting habitat outside of main breeding bird season (i.e. September to February), or immediately following a search by an ecologist.	Planning condition.	Not significant, no contravention of wildlife legislation.
Bats	Light disturbance.	Construction site fencing. Minimise lighting and direct away from woodland. Sensitive lighting scheme.	Construction Environmental Management Plan. Planning condition.	Not significant, no contravention of wildlife legislation.



Ecological Feature	Potential Impacts	Proposed Mitigation, Compensation and Enhancement	Means of Delivering Mitigation, Compensation and Enhancement	Residual Effects
	Killing or injuring	Pre-construction survey. Good practice construction measures.	Planning condition.	Not significant, no contravention of wildlife legislation.
-	-	Incorporation of the following biodiversity enhancements: <ul style="list-style-type: none"> • Removal of water bath and large trash within the stream; • Bank top habitat enhancement; • Bird boxes on 10% of the new residential properties or garages; • Bat boxes on 10% of the new residential properties or garages; and • Hedgehog highways. In accordance with the BNG assessment, 552 m of hedgerow, the grasslands will be enhanced, and new area habitats created. The deficit in watercourse units will be addressed in the preparation of the biodiversity gain plan.	Planning condition.	Minor positive for some nesting bird species and bats. 10% BNG, once watercourse units are secured (see Section 5.0).



5.0 Biodiversity Net Gain Assessment

The Statutory Biodiversity Metric was used to estimate the existing baseline score for the Site, and the post-development score of the scheme, considering the relevant habitat creation measures proposed. The full results are provided in Appendix E (supplied separately, in Excel format).

The BNG baseline comprises of two areas of modified grassland (1.83 ha in poor condition and 0.611 ha in moderate condition), 0.007 ha of bracken and 0.038 ha of bramble scrub (Section 3.4). This equates to a baseline value of 6.27 Area Habitat Units.

In terms of linear habitats, the 0.02 km stream on Site was assessed as Fairly Good condition and provides 0.30 Watercourse Units. There are no Hedgerow Units within the baseline for the Site.

Taking into account the proposed residential development (Appendix F), the post-development Site is predicted to have a value of 6.97 Area Biodiversity Units, a +11.10% net gain, which satisfies trading rules. There would also be a +0.91 increase in Hedgerow Units. These are made up of:

- Retaining all of the bracken and 0.0176 ha of bramble scrub;
- Enhancing 0.43585 ha of modified grassland with species rich meadow grassland and shade tolerant grassland to establish other neutral grassland in moderate condition (passes all criteria except essential criterion F);
- 0.05652 ha of vegetated gardens and 0.0138 ha of ornamental/native shrubs;
- 78 trees to be planted across the Site, equating to 0.3176 ha of urban trees, which pass all criteria apart from C – Mature trees and E – natural ecological niches;
- 0.061 ha of modified grassland verges and a further 0.0807 ha associated with the local area of play, both of which are predicted to be in poor condition, passing all criteria except A – species diversity, B – sward height, D – physical damage and E – bare ground;
- 0.0196 ha of mixed scrub will be planted, which passes all criteria except B – maturity diversity and E – clearings;
- 0.0267 ha of native woodland scrub mix in moderate condition, with a condition assessment score of 29;
- 0.36265 ha of other neutral grassland in poor condition, due to the location in close proximity to residential development (passes all criteria except essential criterion A); and
- Planting of 356 m of formal low hedgerow and 168 m of native mix hedgerow.

The enhancements described in Section 4.8 for the watercourse will not result in an increase in condition category from baseline condition of Fairly Good; therefore, the deficit (0.03) in watercourse units shall be secured by a planning condition for the preparation and submission of a biodiversity gain plan.



6.0 Conclusion

The adjacent Shepley Mill Wood is considered important at a regional level due to its designation as ancient woodland, priority habitat deciduous woodland and status as a LWS. The stream is a locally important habitat on Site. The Site is also considered locally important for nesting birds, bats and Two Schedule 9 INNS: rhododendron and cotoneaster were identified immediately outside of the Site boundaries. No significant cumulative effects were identified, and it is concluded that the development proposals would be compliant with national and local planning policies and relevant legislation. Provided that the avoidance and mitigation measures as set out in this EclA are implemented in full, residual effects on important ecological features will not be significant and there will be minor positive effects for breeding birds and roosting bats. The proposals will deliver 11.10% net gain of Biodiversity Units on-Site, and a +0.91 increase in Hedgerow Units. 0.03 watercourse units shall be secured by a planning condition for the preparation and submission of a biodiversity gain plan.





Figure 1 UKHab Baseline Map

Ecological Impact Assessment and Biodiversity Net Gain Assessment

Shepley Road

Newett Homes Limited

SLR Project No.: 424.065101.00001

24 April 2024

418350 418400 418450 418500 418550 418600

410850
410800
410750
410700

424.065101.00001.0001.0 UK Habitat Baseline



LEGEND

- Site Boundary
- ⊙ Target Note

Primary Habitat Classification

Rivers and Lakes - Rivers and Streams

- r2b - Other Rivers and Streams

Grassland - Acid Grassland

- g1c - Bracken

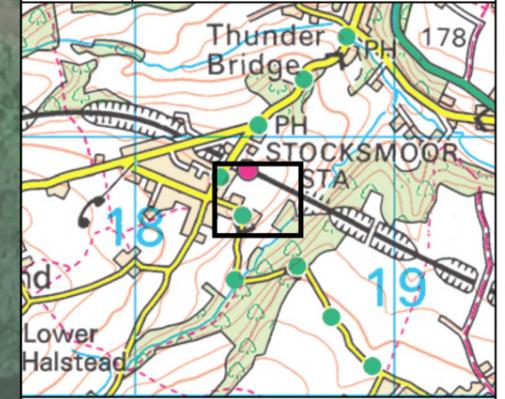
Grassland - Modified Grassland

- g4 - Modified Grassland

Heathland and Shrub - Dense Scrub

- h3d - Bramble Scrub

Secondary Codes:
 10 - Scattered Scrub
 102 - Sheep Grazed



SHEPLEY ROAD, STOCKMOOR
 ECOLOGICAL IMPACT ASSESSMENT
 UK HABITAT BASELINE

FIGURE 1

Scale 1:1,000 @ A3 Date MARCH 2024





Appendix A Preliminary Ecological Appraisal

Ecological Impact Assessment and Biodiversity Net Gain
Assessment

Shepley Road

Newett Homes Limited

SLR Project No.: 424.065101.00001

24 April 2024

Our ref: 11329 / HEJ
Approved: JD

masterplanning ■
environmental assessment ■
landscape design ■
urban design ■
ecology ■
architecture ■
arboriculture ■
graphic design ■

Newett Homes
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Aizlewoods Mill
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Tel: 01509 672772
mail@fpcr.co.uk
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VIA EMAIL:

20th December 2022

Dear

Shepley Road, Stocksmoor – Preliminary Ecological Assessment.

Please find below a summary of the desk study and Phase 1 habitat survey undertaken at Shepley Road, Stocksmoor. Please note, this provides an initial summary of the ecological constraints and opportunities at the Site and is not intended to be submitted with a planning application in the place of an Ecological Impact Assessment, although it may be used to inform pre-application advice. Detailed methodologies and results will be provided within subsequent reports as necessary.

Desk Study (Figures 1 and 2)

Three statutory designated sites of international nature conservation interest are present within 10 km of the Site. South Pennines SAC (Special Area of Conservation), lies 9.0 km south-west of the Site and contains three primary habitats of European importance: European dry heaths; blanket bogs and old sessile oak woods with ilex and blechnum; and two secondary habitats of European importance: northern Atlantic wet heaths with erica tetralix, and transition mires and quaking bogs. Denby Grange Colliery Ponds SAC lies 9.3 km north-east and is designated due to its high count of great crested newt *Triturus cristatus*. Peak District Moors (South Pennines Moors Phase 1) SPA (Special Protection Area) lies 7.6 km south-west of the Site, and during the bird breeding season, supports approximately 2% of the UK breeding populations of golden plover *Pluvialis apricaria*, merlin *Falco columbarius*, and short-eared owl *Asio flammeus*. It is considered that since the scale of this proposed development is small, distant and does not support similar habitats, there will be no impact on these statutory designated sites during or post construction.

The Site lies within the impact risk zone of two distant Sites of Special Scientific Interest (SSSI): Denby Grange Colliery SSSI, situated 9.3 km north-east; and Dark Peak SSSI, situated 7.6 km south-west. However, the nature of the proposed development does not fall into any of the restricted

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development categories associated with these IRZs and no further consideration of potential effects required.

Thirteen ancient woodland sites are present within 2 km of the Site: four sites of ancient and semi-natural woodland (ASNW); and nine sites of ancient replanted woodland (ARW). Shepley Mill Wood ASNW lies immediately adjacent to the eastern boundary of the Site.

Thirteen non-statutory designated sites of local nature conservation interest are present within 2 km of the Site: eleven local wildlife sites (LWS) and two local geological sites (LGS), listed in Table 1 below. Two sites lie adjacent to the eastern boundary – Upper & Lower Stones Wood LWS (species rich woodland) and LGS. As a geological designation, the LGS is not considered further in this report as indicated below.

Table 1: Non-statutory designated sites of local nature conservation interest

Name	Designation	Reason for designation	Distance from Site
Upper & Lower Stones Wood	LWS	ASNW; species-rich acid woodland	Adjacent to eastern Site boundary
Birks Wood	LWS	Locally abundant bluebell <i>Hyacinthoides non-scripta</i>	0.25 km N
Shepley Mill Wood	LWS	Locally abundant bluebells	0.60 km E
Gelder Wood	LWS	Species-rich acid woodland	0.96 km E
Brown's Knoll Meadows	LWS	Species rich neutral grassland; ASNW; extensive bluebell cover and diverse range of habitats	0.38 km NW
Clough Woods	LWS	ASNW	0.87 km NW
Lumb House	LWS	Species-rich neutral and acid grasslands; species-rich fen	1.01 km NW
Thunderbridge	LWS	Species-rich neutral & acid to neutral grasslands	0.89 km N
Shelley Wood	LWS	ASNW; species-rich acid woodland	1.09 km NE
Allen Wood	LWS	ASNW plus species-rich acid woodland	1.43 km NE
Yew Tree Wood	LWS	Species-rich acid woodland; county rare species <i>Galium uliginosum</i>	1.89 km SE
Upper & Lower Stones Wood	LGS	Steep-sided clough – the spring line indicates the junction between Grenoside sandstone and underlying shales. Upper carboniferous Greenmoor Rock in stream bed	Adjacent to eastern Site boundary
Hartley Bank Quarry	LGS	A range of sedimentary rocks; a large channel with erosion surfaces; cross-stratification structures	0.81 km NE
ASNW: Ancient and Semi-Natural Woodland LGS: Local Geological Site LWS: Local Wildlife Site			

The adopted Local Plan for Kirklees¹ states:

Proposals having a direct or indirect adverse effect on a Local Wildlife Site or Local Geological Site, Ancient Woodland, Veteran Tree or other important tree, will not be permitted unless the benefits of the development can be clearly shown to outweigh the need to safeguard the local conservation

¹ Adopted Local Plan for Kirklees http://consult.kirklees.gov.uk/portal/pp/kirklees_local_plan/klp-sp?pointId=s1551718560004 [accessed 08.12.2022]

value of the site or feature and there is no alternative means to deliver the proposal. In all cases, full compensatory measures would be required and secured in the long term.

The LWS and ASNW should be suitably protected during construction from potential effects of damage and disturbance, including accidental incursion, dust deposition and pollution and contamination during works in accordance with current guidance and best practice, including pollution prevention guidance as well as lighting considerations during the construction process. This should be implemented through a Construction Environmental Management Plan (CEMP), likely to be delivered by planning condition.

Design should also include a habitat buffer between the development and Shepley Mill Wood ASNW and Upper and Lower Stones Wood LWS, to protect the LWS and woodlands. It would be anticipated that 15m would be likely required in line with current guidance from Natural England² on protecting ancient woodlands and would incorporate the root protection area for the woodland. The addition of a sensitive lighting design strategy for the development (in accordance with best practice guidelines³), would also serve to protect the integrity of the adjacent LWS/ASNW and any protected species within it which might be affected by altered lighting regimes.

It is considered that the proposed development will not have an adverse effect on any of the other non-statutory designated ancient woodland sites or local wildlife sites within 2 km of the Site.

Field Survey: Habitats (Figure 3)

The Site is bounded by a railway line to the north, a woodland to the east, Shepley Lane to the south, and residential properties to the south-east and west.

The Site comprised a single t-shaped field, the boundaries formed on three sides (north, south and west) by drystone walls, protected by an offset post and barbed wire fence, and the eastern boundary formed from post and wire fencing. A short reach of an unnamed stream crossed the north-eastern corner of the Site.

The field was mainly short sward improved grassland, with taller vegetation along the margins, and evidence of recent grazing by sheep. Towards the eastern end of the field, the Site inclined steeply towards the east, and here a tussocky poor semi-improved grassland was present, within which were areas of scattered and dense scrub, and bracken. Dense scrub was present between the barbed wire fence and drystone wall bounding residential properties to the south-west of the poor semi-improved grassland area. In the north-western corner of the Site was an area of scattered scrub, and an area of tall ruderal vegetation was recorded in the western corner of the Site, with a small woodpile located within the margins of the western part of the Site.

The improved grassland has limited ecological value and is not considered to be a constraint to development. The other habitats within the Site and more particularly the running water and area of dense scrub, although limited in extent, provide some ecological value at a localised level and as such should be considered during the design and construction phases. Further assessment of the poor semi-improved grassland during the recommended season (April – September) may be required to fully assess its value.

In addition, changes to watercourses may impact upon the hydrological regime of the watercourse and could impact upon flood risk and habitats downstream.

² <https://www.gov.uk/guidance/ancient-woodland-ancient-trees-and-veteran-trees-advice-for-making-planning-decisions>
[accessed 20.12.22]

³ Bat Conservation Trust / Institution of Lighting Professionals. 2018. Guidance Note 08/18: Bats and artificial lighting in the UK. <https://cdn.bats.org.uk/uploads/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?v=1542109349> (Nb. These guidelines are due to be updated 28/02/2023)

Protected / Notable Species

The Site falls under the remit of Kirklees Council, part of the West Yorkshire Combined Authority, therefore, priority species have been considered that are in the two local Biodiversity Action Plans (LBAP): for Kirklees and for West Yorkshire.

Although there are limited habitats within the Site, these do offer varying potential for protected or notable species:

(Confidential): No evidence of [redacted] was seen on Site, although unidentified [redacted] were observed along the [redacted] boundary. However, the poor semi-improved grassland habitat is suitable for foraging, and the dense scrub provides some potential for [redacted]. There are [redacted] of the centre of the site, with habitats adjoining the Site providing foraging and [redacted] creation opportunities. The loss of the habitats on Site would be unlikely to affect the favourable conservation status of the [redacted]. Currently no further survey or mitigation is required to support an application,

Given the suitable habitats on Site for [redacted] and known presence in the local area, appropriate measures should be implemented, prior to construction commencing on Site. It is recommended that a pre-commencement walkover survey is carried out, to ensure that no [redacted] have been established in the interim which might present constraints and/or require mitigation at that time. During construction, suitable precautionary working practices should be followed to ensure no harm to any passing [redacted] trenches should be infilled or where left open provided with a means of egress for [redacted] and pipelines > 250mm diameter should be blocked off when left exposed, to ensure [redacted] are not trapped. These should be detailed within a CEMP.

Bat activity: The Site lies within the Kirklees bat alert zone as it is situated within 200m of woodland. Although the nearest record for bat species is 770m north-east of the Site, it is considered that the scrub, ruderal and poor semi-improved grassland habitats within the Site may provide potential for foraging and commuting bats in the local area, with the woodland edges along the north and east boundaries providing foraging and movement corridors. The remainder of the Site provides limited suitability for bats. Overall, it is considered unlikely that the loss of any on-site habitats would adversely affect the ability of the local bat population to forage and move around the local area, but design should seek to maintain and enhance the provision of linear edge habitats and foraging where possible with new boundary habitats. Further survey to determine activity is not currently recommended at the Site due to its small scale and the ability of the design to accommodate the retention of boundary habitats.

Bats and trees: The woodland adjacent to the eastern boundary of the Site is suitable for bats. Trees immediately adjacent along the eastern boundary were assessed for potential roosting features (PRF) and two trees offsite were identified as having PRFs: one tree with moderate potential; one tree with low potential which may be affected by the proposed development, including through changed lighting regimes.

The provision of a buffer to protect the adjacent woodland root protection area would negate any physical impact to these trees. The inclusion of a considerate and appropriate lighting strategy to prevent light spill onto these trees would limit any further potential impacts upon any bats which may be present.

Without the provision of the above measures there would be a risk that the proposed development might impact upon bat roosts and further investigation would be required ahead of the submission of a planning application, to determine if any bat roosts are present, what the status of those roosts may be, and to what extent the proposed development might impact upon those roosts.

Birds: No records were returned for protected or notable birds within the Site, although great tit *Parus major*, robin *Erithacus rubecula* and wood pigeon *Columba palumbus* were seen during the field survey.

The areas of scrub, and poor semi-improved grassland within the Site provide some limited nesting and foraging habitat for breeding birds, and the adjacent woodland provides potential nesting and foraging habitat. It is recommended that if construction is scheduled to be carried out during the nesting bird season (March to August inclusive), a nesting bird check is performed no earlier than 48 hours prior to commencement, covering the Site and the woodland edge. If breeding birds are present, buffers within which no works can occur will be required around the nest, the size of which to be decided by a suitably qualified ecologist until the birds have fledged.

Great crested newts (GCN): A search for waterbodies was undertaken within 500m of the Site. No waterbodies were identified within the Site, although a short section of stream was flowing through the north-eastern corner. This stream was fast-flowing at the time of the field survey, making it unsuitable for GCN. This stream flows into Stone Wood Dike approximately 50m east of the Site, and which flows in a general north-easterly direction within the adjacent woodland. Waterbodies within 500m of the Site include; a small drinking trough named Stones Wood Fairy Pool, located approximately 450m north-east; a possible ephemeral field pond 420m south-east of the Site; two residential garden ponds 460m to the south-west of the site, and a possible ephemeral field pond 420m west of the Site.

Records show no GCN have been recorded within 2 km of the site, although a smooth newt *Lissotriton vulgaris* was recorded 225m north-west from the centroid of the Site. It is considered that the distance from the Site of potential suitable breeding waterbodies for GCN precludes the possibility of GCN being within the Site.

There is some potential, albeit low, for common and widespread amphibians to use the Site, particularly the tussocky grassland in the east of the Site. Common Toad *Bufo bufo* is a Species of Principal Importance under the Natural Environment and Rural Communities (NERC) Act 2006. Measures to avoid the killing of amphibians during construction should be considered within the CEMP.

Reptiles: The rough grassland at the margins of the improved grassland, and the tussocky nature of the poor semi-improved grassland provides foraging and sheltering potential for reptiles, and the dry-stone walls bounding three sides of the Site provide sheltering and basking potential.

Although no records of reptile species were returned from the desk study, their presence cannot be fully discounted. It is recommended that precautionary methods of working which would prevent harm to reptiles during construction are provided within a CEMP, including any works to the drystone walls.

Invasive and Non-Native Species: One semi-mature unidentified cotoneaster species was observed within the Site, along the northern boundary at the edge of an area of scattered scrub. Some cotoneaster species are invasive and non-native species (listed within Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)). It is recommended that this species is confirmed during the recommended survey season and that best practice is followed as appropriate to ensure that this species is not allowed to spread beyond the confines of the Site, detailed within the CEMP

Notable Species:

No records are currently held by the local records office for notable species within the Site. It is considered that the proposed development would not affect any notable species listed as being present beyond the boundary of the Site.

Biodiversity Net Gain

During the Phase 1 survey, all habitat areas were surveyed and mapped, and habitats defined using the UK Habitat Classification, with each habitat parcel described by its location, area, distinctiveness and condition. This information will be used to carry out baseline biodiversity offsetting calculations using the DEFRA Biodiversity Metric 3.1, the results of which are intended to inform further discussions regarding site and landscape layouts, and where necessary, broad requirements for, and scope of, offsite habitat compensation delivered by the client on land nearby or a financial contribution towards off-site compensation, should the requisite gain not be provided within the red line. Baseline calculations for existing habitats indicate the Site has 5.97 habitat units and 0 hedgerow units.

A short section of unnamed stream in the north-eastern corner of the Site was considered to qualify for individual assessment under the Rivers section of the metric. Any encroachment within 10m of the river will therefore require a biodiversity impact assessment under the rivers section of the metric, informed by a detailed MoRPH river condition survey. It is therefore recommended that design for the proposed development retains and protects this watercourse with a 10m landscape buffer included alongside it within which no construction works should occur, which would avoid the requirements for further assessment.

In order to reduce the impact of habitat losses within the metric, design should seek to retain and enhance habitats of greater value, including the river/brook section, ideally some or all of the dense scrub area and where possible the poor semi-improved grassland. It should be noted that impacts to/the loss of river/stream habitat can be difficult to compensate for within development proposals, with the extent of grassland loss likely to be required by development also having the potential to require additional compensation, above that possible within the scope of the landscaping scheme.

When considering the design for the development, the guidelines issued within the adopted local plan for Kirklees should be followed, which states:

Development proposals will be required to:-

- (i) result in no significant loss or harm to biodiversity in Kirklees through avoidance, adequate mitigation or, as a last resort, compensatory measures secured through the establishment of a legally binding agreement;*
- (ii) minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;*
- (iii) safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;*
- (iv) establish additional ecological links to the Kirklees Wildlife Habitat Network where opportunities exist; and*
- (iv) incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone.*

The Site does not lie within the strategic Kirklees Wildlife Habitat Network, however, the adjoining ASNW and LWS are within it. It is therefore considered that the above proposed buffer will safeguard the integrity of the ecological network and landscaping/green infrastructure proposals for the development should allow additional ecological links to the network where appropriate.

It is further considered that the landscape/green infrastructure design for the proposed development should also reflect the habitats of principal importance identified in the Kirklees Biodiversity

Opportunity Zones⁶. This Site lies within the mid-altitudinal grasslands and valley slopes zones⁷, for which the relevant habitats of principal importance include lowland mixed deciduous woodland and scrub.

I hope the above is helpful. Please do not hesitate to contact us if you would like any clarification or wish to discuss anything in more detail.

Yours sincerely

Hilary Jenkinson

Assistant Ecologist

FPCR Environment and Design Ltd

Incl:

- Figure 1: Consultations Data Results Plan – Statutory & Non-Statutory Sites
- Figure 2: Consultations Data Results Plan – Species
- Figure 3: Preliminary Phase 1 Habitat Plan

⁶ <https://www.kirklees.gov.uk/beta/delivering-services/pdf/biodiversity-opportunity-zones-tables.pdf> [accessed 13.12.2022]

⁷ Biodiversity Opportunity Zones and Ecological Networks in Kirklees <https://www.kirklees.gov.uk/beta/delivering-services/pdf/biodiversity-opportunity-zones-map.pdf> [accessed 08.12.2022]

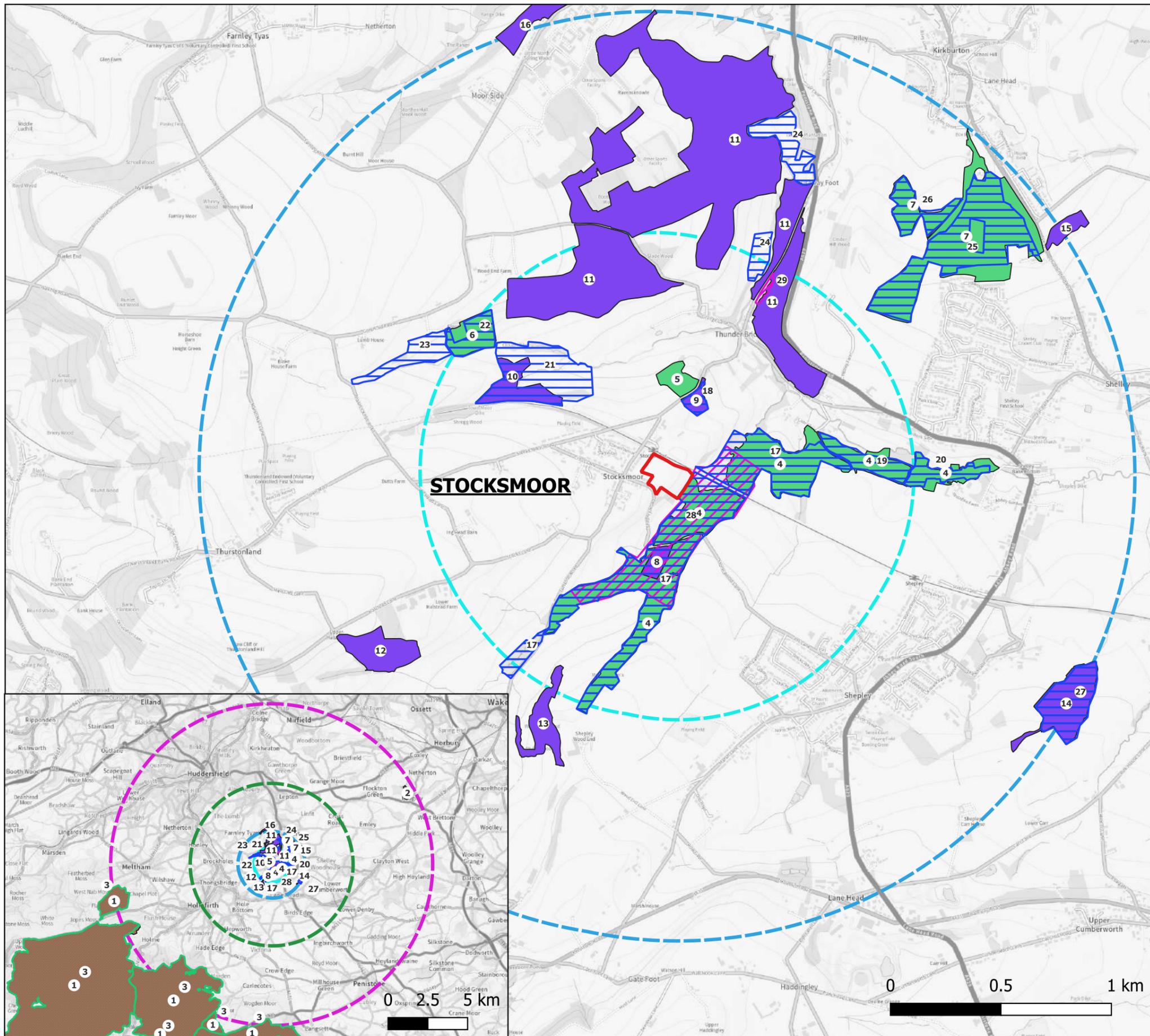
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Key

-  Site Boundary
-  1 km Buffer
-  2km Buffer
-  5km Buffer
-  10km Buffer
-  Special Area of Conservation (SAC)
-  Special Protection Area (SPA)
-  Ancient & Semi-Natural Woodland (ASNW)
-  Ancient Replanted Woodland (ARW)
-  Local Wildlife Site (LWS)
-  Local Geological Site (LGS)

1. South Pennine Moors SAC
2. Denby Grange Colliery Ponds SAC
3. Peak District Moors (South Pennine Moors Phase 1) SPA
4. Shepley Mill Wood ASNW
5. Birks Wood ASNW
6. Clough Wood ASNW
7. Shelley Wood ASNW
8. Shepley Mill Wood ARW
9. Birks Wood ARW
10. Brown's Knoll Wood ARW
11. Hartley Bank Wood ARW
12. Hallstead Wood ARW
13. Wood End Wood ARW
14. Yew Tree Wood ARW
15. Shelley Wood ARW
16. North Spring Wood ARW
17. Upper & Lower Stones Wood LWS
18. Birks Wood LWS
19. Shepley Mill Wood LWS
20. Gelder Wood LWS
21. Brown's Knoll Meadows LWS
22. Clough Woods LWS
23. Lumb House LWS
24. Thunderbridge LWS
25. Shelley Wood LWS
26. Allen Wood LWS
27. Yew Tree Wood LWS
28. Upper & Lower Stone Woods LGS
29. Hartley Bank Quarry LGS



client
Newett Homes

project
Stockmoor

drawing title
Consultation Data Results Plan: Statutory & Non-Statutory Designated Sites

scale @ A3
1:18000

drawn
HEJ / HEJ

issue date
17/11/2022

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Figure 1

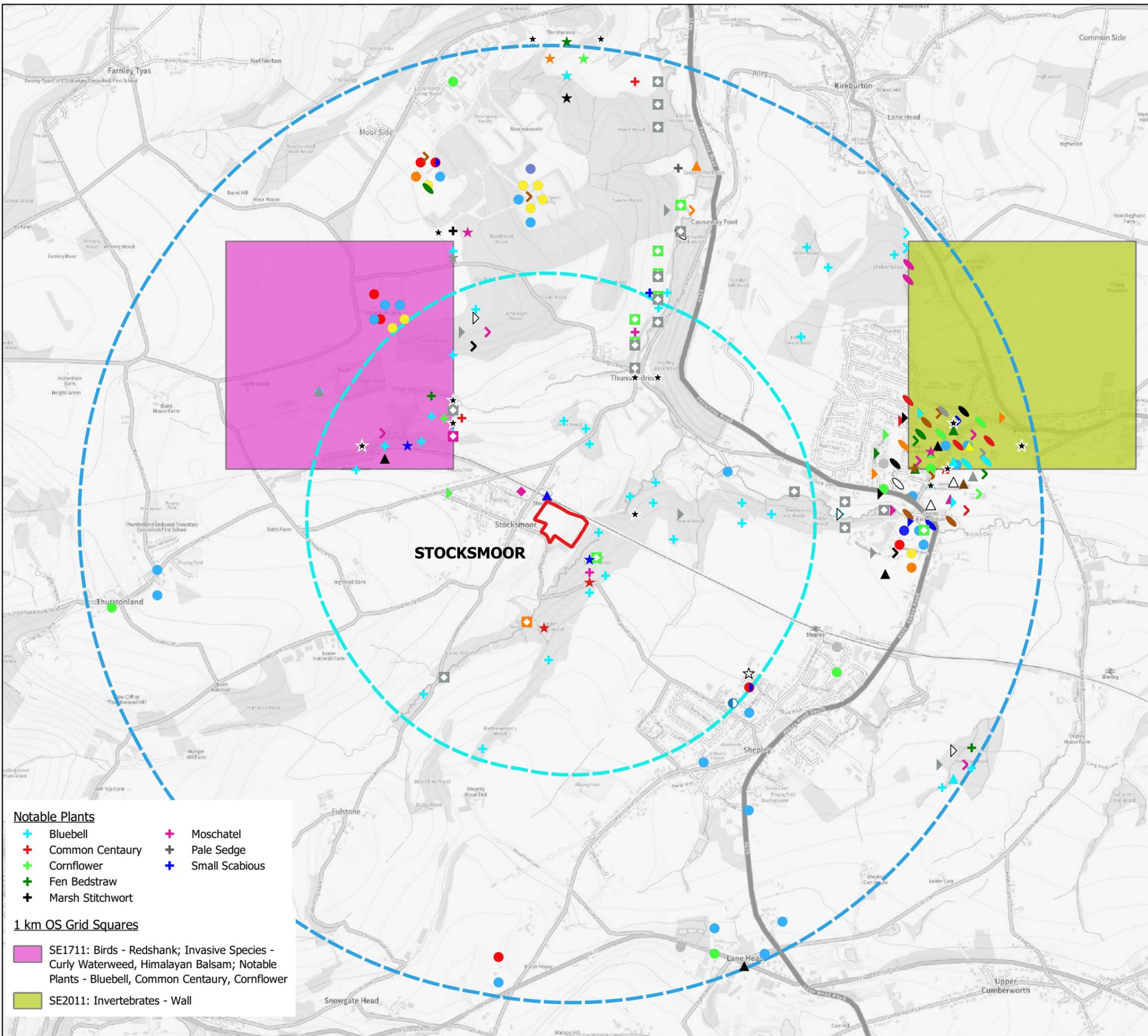
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Key

- Site Boundary
 - 1 km Buffer
 - 2 km Buffer
- Bats**
- Brown Long-eared Bat
 - Common Pipistrelle
 - Daubenton's Bat
 - Myotis Bat species
 - Noctule
 - Pipistrellus species
 - Soprano Pipistrelle
 - Unknown Bat species
 - Vesper Bat species
 - Whiskered Bat
- Birds**
- ▲ Bullfinch
 - ▲ Canada Goose
 - ▲ Common Gull
 - ▲ Common Redpoll
 - ▲ Cuckoo
 - ▲ Dipper
 - ▲ Dunnock
 - ▲ Fieldfare
 - ▲ Goldfinch
 - ▲ Greenfinch
 - ▲ Grey Heron
 - ▲ Grey Wagtail
 - ▲ Hobby
 - ▲ House Martin
 - ▲ House Sparrow
 - ▲ Kestrel
 - ▲ Lesser Black-backed Gull
 - ▲ Lesser Redpoll
 - Lesser Spotted Woodpecker
 - ▲ Linnets
 - ▲ Mallard
 - ▲ Meadow Pipit
 - ▲ Mistle Thrush
 - ▲ Moorhen
 - ▲ Pink-footed Goose
 - ▲ Redpoll (Common\Lesser)
 - ▲ Redwing
 - ▲ Ring Ouzel
 - ▲ Rook
 - ▲ Skylark
 - ▲ Song Thrush
 - ▲ Sparrowhawk
 - ▲ Swallow
 - ▲ Swift
 - ▲ Tawny Owl
 - ▲ Tree Sparrow
 - ▲ Whitethroat
 - ▲ Willow Tit
 - ▲ Willow Warbler
 - ▲ Woodpigeon
 - ▲ Wren
 - ▲ Yellow Wagtail
 - ▲ Yellowhammer
- Herptiles**
- ◆ Smooth Newt
- Invasive Species**
- ◻ Curly Waterweed
 - ◻ Himalayan Balsam
 - ◻ Japanese Knotweed
 - ◻ Variegated Yellow Archangel
- Invertebrates**
- ★ Abdera flexuosa
 - ★ Acidota cruentata
 - ★ Agabus biguttatus
 - ★ Aphodius paykulli
 - ★ Atomaria diluta
 - ★ Bast Bark Beetle
 - ★ Cis festivus
 - ★ Ctenicera pectinicornis
 - ★ Flax Flea Beetle
 - ★ Green-brindled Crescent
 - ★ Hylecoetus dermestoides
 - ★ Knot Grass
 - ★ Mantura rustica
 - ★ Mycetoporus despectus
 - ★ Tropiphorus terricola
 - ★ Wall
 - ★ White-letter Hairstreak



- Notable Plants**
- + Bluebell
 - + Common Centaury
 - + Cornflower
 - + Fen Bedstraw
 - + Marsh Stitchwort
 - + Moschatel
 - + Pale Sedge
 - + Small Scabious
- 1 km OS Grid Squares**
- SE1711: Birds - Redshank; Invasive Species - Curly Waterweed, Himalayan Balsam; Notable Plants - Bluebell, Common Centaury, Cornflower
 - SE2011: Invertebrates - Wall

Newtett Homes
client

project
Stocksmoor

drawing title
Consultation Data Results Plan: Species

scale @ A3
1:17500

drawn
HEJ / HEJ

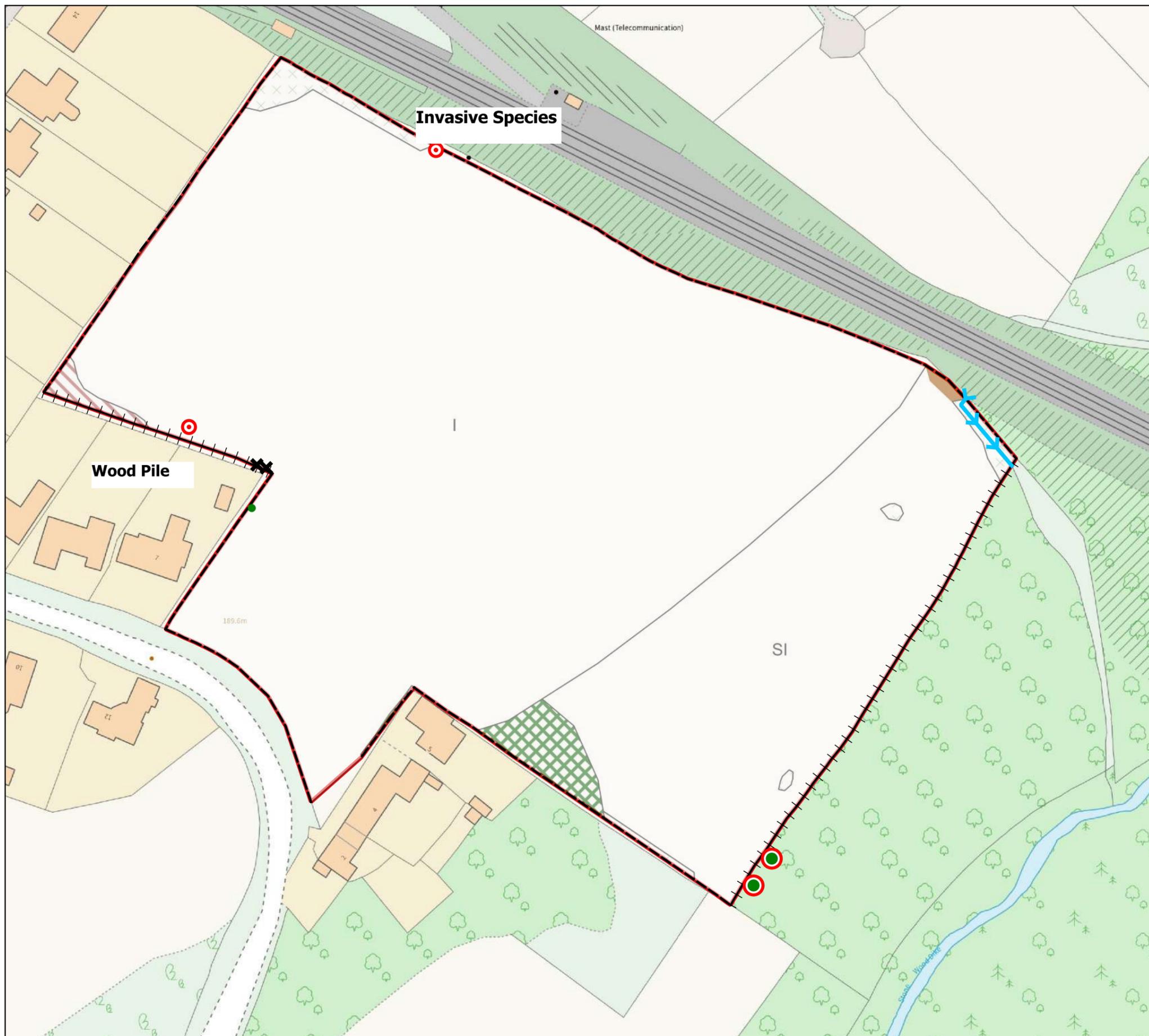
issue date
21/11/2022

drawing / figure number
Figure 2

rev
-

Key

-  Site Boundary
-  Bracken - continuous
-  Improved grassland
-  Other tall herb and fern - ruderal
-  Poor semi-improved grassland
-  Scrub - dense/continuous
-  Scrub - scattered
-  Dry stone wall
-  Running water
-  Fence
-  Scrub - scattered
-  Target note
-  Broadleaved tree
-  Tree with bat potential





Appendix B Relevant Legislation and National Planning Policy

Ecological Impact Assessment and Biodiversity Net Gain
Assessment

Shepley Road

Newett Homes Limited

SLR Project No.: 424.065101.00001

24 April 2024

B.1 Relevant Legislation

A summary of legislation relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original legislation should be consulted for definitive information.

B.1.1 Environment Act 2021

The Environment Act has wide ranging provisions including those around:

- Environmental governance;
- Environmental regulation;
- Waste and resource efficiency;
- Air quality and environmental recall;
- Water;
- Nature and biodiversity; and
- Conservation covenants.

Of particular relevance is Part 6 of the Act which introduces “biodiversity gain in planning” and will apply in England to planning applications under the Town & Countryside Act and the Planning Act. Schedule 14 now requires that biodiversity gain be a condition of planning permission in England. These changes will be enacted through subsequent secondary legislation or regulations. This part of the Act also changes the responsibilities that Government or public bodies have by strengthening the existing NERC Act biodiversity duty. Public authorities are now required to seek to conserve and enhance biodiversity in the exercise of their functions.

B.1.2 Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. Under the Habitats Regulations it is an offence to deliberately capture, kill or disturb¹⁶ wild animals listed under Schedule 2 of the Regulations as well as damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time). European Sites, including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), are also protected under the Habitat Regulations, and any proposal that could affect them will require an Habitats Regulations Assessment (HRA).

B.1.3 Natural Environment and Rural Communities Act 2006

Section 40 of the NERC Act 2006 places a duty on public authorities to have regard to the purpose of conserving biodiversity in the exercise of their functions. Public authorities include government departments, local authorities and statutory undertakers.

¹⁶ Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.



Section 41 of the Act (Section 42 in Wales) requires the publication of a list of habitats and species publish which are of principal importance for the purpose of conserving biodiversity. The Section 41 list is used to guide authorities in implementing their duty to have regard to the conservation of biodiversity.

B.1.4 Protection of

The Protection of _____ makes it illegal to kill, injure or take a _____ or to intentionally or recklessly interfere with a _____ interference includes disturbing _____ whilst they are occupying _____ or obstructing access to it.

B.1.5 Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CRoW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act; or
- Plant or cause to grow in the wild any plant species listed under Schedule 9 of the Act.

B.2 Relevant Planning Policy

A summary of national planning policy relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original policy documents should be consulted for definitive information. For local planning policy relevant to biodiversity the relevant local plans should be consulted.

The National Planning Policy Framework (NPPF)¹⁷ sets out guidance for local planning authorities and decisionmakers in how to apply planning policies when drawing up plans and making decisions about planning applications. Along with Government Circular 06/053, the broad policy objectives in relation to the protection of biodiversity and geological conservation in England through the planning system are set out. Specific policies relating to habitats and biodiversity are set out in paragraphs 131, 174 and 179-182 of the NPPF.

Paragraph 131 states that:

¹⁷ Department for Levelling Up, Housing and Communities (2023) National Planning Policy Framework <https://www.gov.uk/government/publications/national-planning-policy-framework--2>



“Trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are treelined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users”

Paragraph 179 states that:

“To protect and enhance biodiversity and geodiversity, 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 biodiversity; 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.”

Paragraph 180 states 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.”

Paragraphs 181-182 relate to European sites (referred to as habitats sites) and state:

“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.



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.”





Appendix C Desk Study Data

Ecological Impact Assessment and Biodiversity Net Gain
Assessment

Shepley Road

Newett Homes Limited

SLR Project No.: 424.065101.00001

24 April 2024



West Yorkshire
**Ecology
Service**

West Yorkshire Ecology Service
West Yorkshire Joint Services
Nepshaw Lane South
Morley
Leeds
LS27 0QP | LS27 7JQ (Sat Nav)
Tel: 0113 535 0158
Email: ecology@wyjs.org.uk

ECOLOGICAL RECORDS SEARCH

FOR

SHEPLEY ROAD, STOCKSMOOR

Ref No:- 20240226 K1182 LM

Date: 27/02/2024

Prepared For Lucy Sumner

SLR Consulting

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1 Introduction

This report provides a summary of the protected and notable species, habitats and designated sites information held by West Yorkshire Ecology Service (WYES) within 2km of grid reference SE 18462 10778.

The information within this report is supplied subject to WYES's 'Terms and Conditions', which can be viewed on the WYES website [170426-terms-and-conditions-of-data-supply-and-usage-allowing-for-use-as-gis-format.pdf \(wyjs.org.uk\)](https://www.wyjs.org.uk/170426-terms-and-conditions-of-data-supply-and-usage-allowing-for-use-as-gis-format.pdf)

2 Species

Please see Appendix E for records held by WYES within your defined search area.

2.1 SENSITIVE SPECIES RECORDS

2.1.1

West Yorkshire Ecology Service holds no information within 200m of your site. However please see separate excel spreadsheet for additional information such as closest records and increased probability of activity within your search area.

See Appendix D for an explanation to the supply of data.

3 Designated sites

3.1 INTERNATIONALLY/NATIONALLY DESIGNATED SITES

There are no internationally/nationally designated sites within your search area.

3.2 LOCALLY DESIGNATED SITES

The following Non-Statutory sites are found within the search area, and are shown on Fig 1.

Name of Site	Designation
Allen Wood	Local Wildlife Site
Birks Wood	Local Wildlife Site
Brown's Knoll Meadows	Local Wildlife Site
Clough Wood	Local Wildlife Site
Gelder Wood	Local Wildlife Site
Hartley Bank Quarry	Local Geological Site
Lumb House	Local Wildlife Site
Shelley Wood	Local Wildlife Site
Shepley Mill Wood	Local Wildlife Site
Thunderbridge	Local Wildlife Site
Upper and Lower Stone Woods	Local Wildlife Site and Local Geological Site
Yew Tree Wood	Local Wildlife Site

Explanations for designated sites are provided in Appendix B.

Citations for locally designated sites are provided in Appendix C.

There are no local Statutory designated sites within your search area.

4 Habitats

4.1 WILDLIFE HABITAT NETWORK

Your site centroid does not lie within the Kirklees Wildlife Habitat Network.
See Figure 1 for Wildlife Habitat Network data.

4.2 ANCIENT WOODLAND

There is no Ancient Semi-natural Woodland/Ancient Replanted Woodland within 100m of your site centroid.

Figure 1 – Species and Designated Sites

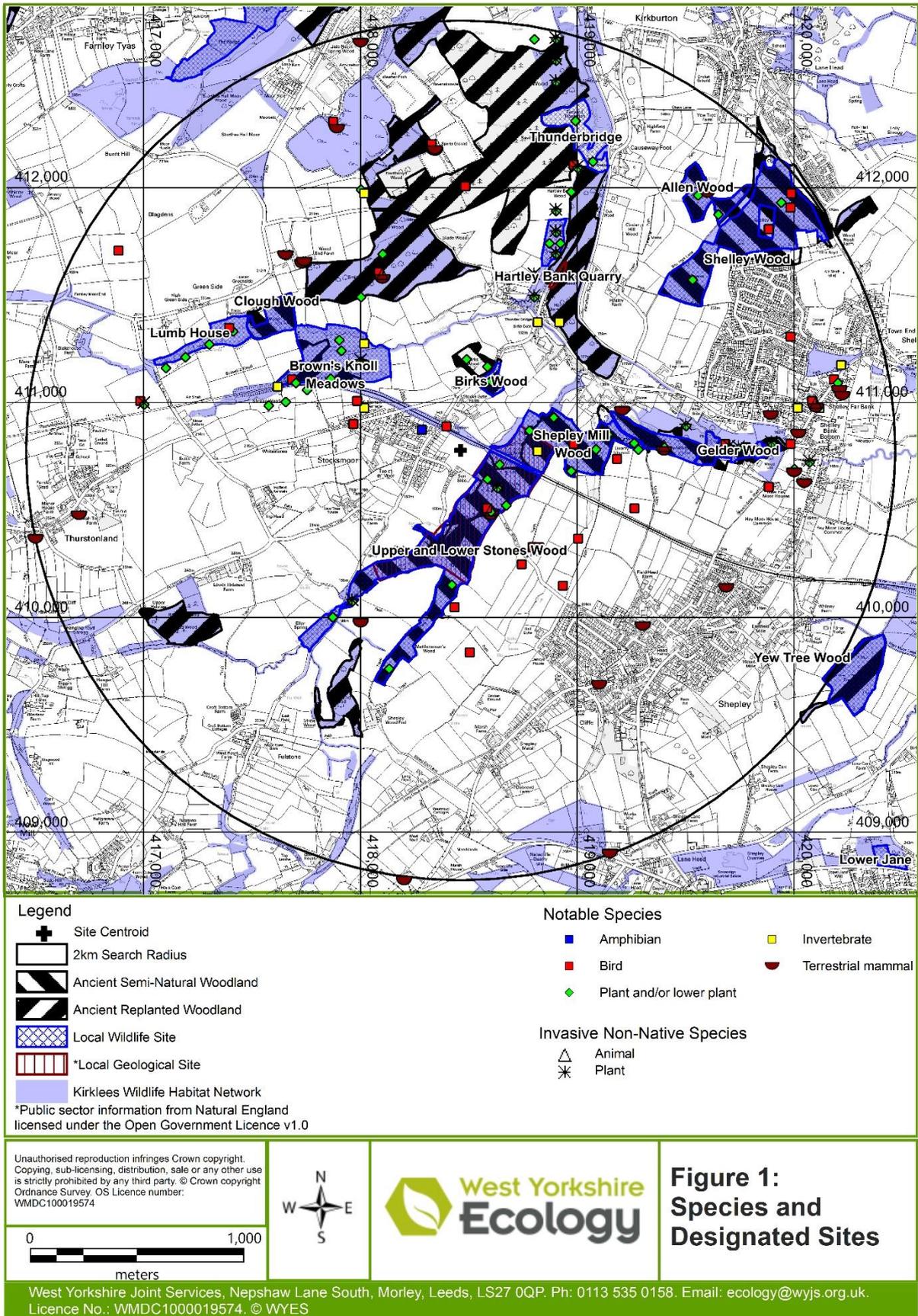


Figure 1: Species and Designated Sites

Appendix A. Explanation of Species Designations

Wildlife and Countryside Act 1981 (WCA) – main designations cited

Abbreviation	Full Name	Description	Offences include, but not limited to
Sch1_part1	Schedule 1, Part 1	Birds which are protected by special penalties at all times	<ul style="list-style-type: none"> disturbance of any specially protected bird while it is building its nest; disturbance of any specially protected bird while it is near a nest containing eggs or young; or disturbance of the young of any of these birds before they are wholly independent.
Sch1_part2	Schedule 1, Part 2	Birds which are protected by special penalties during the close season	
Sch5_s9.1a Sch5_s9.1b	Schedule 5, Section 9(1)(a), (b)	Animals which are protected from killing and/or taking	<ul style="list-style-type: none"> intentional killing, injuring and/or taking NB: certain species are only partly protected by this section. Check primary legislation for details.
Sch5_s9.4a, Sch5_s9.4b, Sch5_s9.4c	Schedule 5, Section 9(4)(a), (b), (c)	Animals which are protected whilst sheltering	<ul style="list-style-type: none"> damage to, destruction of any structure or place used by a scheduled animal for shelter or protection disturbance of animal occupying such a structure or place obstruction of access of animal to such a structure or place
Sch5_s9.5a, Sch5_s9.5b	Schedule 5, Section 9(5)(a), (b)	Animals which are protected from sale	<ul style="list-style-type: none"> selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative); and advertising for buying or selling such things
Sch8	Schedule 8	Plants which are protected	<ul style="list-style-type: none"> pick, uproot, trade in, or possess (for the purposes of trade) selling, offering for sale, possessing or transporting for the purpose of sale, any plant (live or dead, part or derivative) + advertising for buying or selling such things. NB: certain species are only partly protected by this section. Check primary legislation for details.
Sch9_Part1	Schedule 9, Part 1	Animals which are established in the wild.	<ul style="list-style-type: none"> the release of animals and planting of plants listed in Schedule 9. the above offences can be made legal through the granting of licences by the appropriate authorities. NB: Animals that are listed in both WCA Sch1 and WCA Sch9_Part1A refers to captive bred only.
Sch9_Part2	Schedule 9, Part 2	Plants which are established in the wild.	

Conservation of Habitats and Species Regulations 2017 (as amended) (HabReg)

Abbreviation

HabReg-Sch2

HabReg-Sch4

HabReg-Sch5

Description

Schedule 2: European protected species of animals

Schedule 4: Animals which may not be taken or killed in certain ways

Schedule 5: European protected species of plants

Birds of Conservation Concern (BoCC) 2021

List

BoCC-Red

BoCC-Amber

Description

High conservation concern

Medium conservation concern

Red Data Book (RDB-) Categories (England/Great Britain) – Based on IUCN Guidelines

Abbreviation	Full Name	Other Abbreviations	Full Name
RDB-NT	Near Threatened	RDB-EW	Extinct in the Wild
RDB-VU	Vulnerable	RDB-PE	Presumed Extinct
RDB-EN	Endangered		
RDB-CR	Critically Endangered	-Brd / -NonBrd	Breeding/Non-Breeding
RDB-RE	Regionally Extinct	GRL-	Global Red List status
RDB-EX	Extinct		

Spider Amber List

Scarce and threatened spiders (Araneae) of Great Britain (2017) - based on IUCN Guidelines

Biodiversity Action Plans

Abbreviation	Full Name
NERC_s41	Species of Principal Importance under the Natural Environment and Rural Communities (NERC) Act, Section 41 (UK Biodiversity Action Plan)
WYBAP	West Yorkshire Priority Species List
Bradford BAP	Bradford Biodiversity Action Plan
Calderdale BAP	Calderdale Biodiversity Action Plan
Kirklees BAP	Kirklees Biodiversity Action Plan
Leeds BAP	Leeds Biodiversity Action Plan
Wakefield BAP	Wakefield Biodiversity Action Plan

Nationally Notable Invertebrates

Abbreviation	Full Name	Description
NR	Nationally Rare	found in 15 or fewer hectads
NS	Nationally Scarce	found in 16 - 100 hectads
-Includes		Includes IUCN qualifying species
-Excludes		Excludes IUCN qualifying species

Locally Notable Plants - Vice County 63 Local Red Data Book (VC63):

The compilation of the Provisional Vascular Plant Red Data list for VC 63 has been undertaken utilising six separate selected categories to accommodate all taxa under consideration. These categories are: 1) Native Species; 2) Native Species Presumed Extinct in the VC; 3) Hybrids; 4) Archaeophytes; 5) Grey Area Species – Native or Introduced; and 6) Unconfirmed Species. The descriptions give VC 63 status of the species – (based on data collected during the past 40 years, and/or on observation/evidence). In all six categories, the checklist order follows (Stace, 2010).

Abbreviation:	Description (VC63):	Further Details:
VC63:Arch	Archaeophyte	Archaeophyte = species naturalised before 1500AD.
VC63:Cs	Casual only	
VC63:Hyb	Hybrid	
VC63:Int	Introduced	
VC63:Int,Nv	Introduced &/or Native	Casual = Native species unable to persist for more than c. 5 years, and therefore dependent on constant reintroduction.
VC63:Loc	Local	
VC63:NMR	No modern records	
VC63:Ptd	Planted	
VC63:PE(VC)	Presumed extinct in VC63	Extinct in VC63 = species for which no records have been received for around 20 years and which may now be presumed to be extinct in VC 63.
VC63:Unc	Unconfirmed	
-Occ	Occasional	
-R	Rare	
-RR	Very rare	Unconfirmed = species which has been reported as occurring, but has never been confirmed.
-Src	Scarce	
-Sct	Scattered	

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Appendix B. Explanation of Designated Sites

Internationally Designated Sites

Special Protection Areas (SPA)

SPA are European designated sites. They are identified by JNCC/Natural England as being of interest for their bird populations. They are of international importance and have statutory protection.

Special Areas of Conservation (SAC)

SAC are European designated sites. They are identified by JNCC/Natural England as being of interest for their habitat type and species. They are of international importance and have statutory protection.

Nationally Designated Sites

Sites of Special Scientific Interest (SSSI)

SSSI are first-tier sites for conservation. They are areas identified by Natural England as being of interest by reason of their flora, fauna, geological or physiological features. They are of national importance and have statutory protection.

Locally Designated Sites

Local Wildlife Sites (LWS)

This is the new term for locally designated sites being adopted across West Yorkshire. Districts are currently going through a process of merging old designated nature conservation sites (Sites of Ecological or Geological Importance (SEGI), Sites of Scientific Interest (SSI), Bradford Wildlife Areas (BWA), Leeds Nature Areas (LNA), Kirklees Sites of Wildlife Significance (SWS) and Wakefield Nature Areas (WNA)) into a single Local Wildlife Site (LWS) designation. Sites should be given the same protection as SEGIs/SSIs as set out in UDPs/LDFs. Please refer to the link below for the West Yorkshire Local Wildlife Site Selection Criteria.

<https://www.wyjs.org.uk/media/69997/20190509-wy-local-sites-selection-criteria-09-may-2019-rm.docx>

Local Nature Reserves (LNR)

LNRs are statutory sites of district-wide importance for the enjoyment, study or conservation of wildlife, geological features and landforms, but there is seldom detailed ecological information on record for them. For more information on LNRs see <https://designatedsites.naturalengland.org.uk/SiteSearch.aspx>

Local Geological Sites (LGS)

LGS are areas identified as being important for their geological features. More details of this or other LGS sites can be obtained from the West Yorkshire Geology Trust (team@wyorksgeologytrust.org).

Wildlife Habitat Network

The Wildlife Habitat Network aims to meet the requirements of paragraph 114 of the National Planning Policy Framework for Conserving and enhancing the natural environment - Local planning authorities should: “set out a strategic approach in their Local Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure”.

Kirklees

Wildlife Habitat Network data for Kirklees can be found on the link below:

http://consult.kirklees.gov.uk/portal/dlp_pol?pointId=s1442851813908

NE5 development proposals involving land identified on the proposals map as part of a wildlife corridor should make provision for the retention of the corridor and the protection of the wildlife value of the land.

Great Crested Newt District Level Licensing (DLL)

Great crested newt DLL is currently available as an option for developers in Leeds and Wakefield Districts, but not in Bradford, Calderdale or Kirklees. This scheme provides applicants with a choice to either undertake the traditional methods of surveying and trapping-out development sites or to not undertake such work and to pay for standard mitigation within Strategic Opportunity Areas (SOA). This pays for habitat which has already been created for this purpose in advance of development by Natural England. Details for this scheme can be found at:

<https://www.gov.uk/government/publications/great-crested-newts-district-level-licensing-schemes>.

Appendix C. Designated Site Citations

Please see the accompanying folder for local site citations.

Appendix D. Explanation to the supply of data

WYES limit the way in which we display records in data searches due to the sensitivity of the records. We have created a zone showing the increased probability of activity in an area. We have done this by taking records and putting a buffer of 472m (the radius of the average territory, from , of 70ha assuming a circular area) around each record. This then shows a zone of the increased probability of activity across West Yorkshire. If there are records within 200m of the site centroid/boundary, a more detailed confidential report showing the records will be mapped and a spreadsheet with details of each record will be provided. If there are no records within 200m, we will supply the distance to the nearest known record if within the 2km. The records do not contain the grid reference, but do include a calculated distance from the site centroid/boundary.

This increased probability zone information is to be used to help ecological consultants justify the need for full surveys. We would expect them to:

- a) See if the site falls within the “likely probability of activity” zone.
- b) Assess the habitat as part of the Preliminary Ecological Assessment.
- c) Use the 200m buffer detailed record information to try to locate all known
- d) Recommend a more detailed survey if required.
- e) Undertake a full survey if required, assess habitat resource within likely territory and potential impact on any
- f) Recommend mitigation and habitat enhancement.

Appendix E. Species Records

Notable Species

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE183109	Smooth Newt	<i>Lissotriton vulgaris</i>	amphibian	29/09/2013			Sch5_s9.5a	202
SE185120	Brambling	<i>Fringilla montifringilla</i>	bird	1970 - 1988	field record		Sch1_part1	1,222
SE185120	Bullfinch	<i>Pyrrhula pyrrhula</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,222
SE186105	Bullfinch	<i>Pyrrhula pyrrhula</i>	bird	07/05/1997	field record		BoCC-Amber; WYBAP; Kirklees BAP	310
SE199118	Bullfinch	<i>Pyrrhula pyrrhula</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,761
SE201110	Bullfinch	<i>Pyrrhula pyrrhula</i>	bird	01/07/2010	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,648
SE202111	Bullfinch	<i>Pyrrhula pyrrhula</i>	bird	2002	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,763
SE202111	Bullfinch	<i>Pyrrhula pyrrhula</i>	bird	2003	field record	2 Count of Breeding Pair	BoCC-Amber; WYBAP; Kirklees BAP	1,763
SE185120	Collared Dove	<i>Streptopelia decaocto</i>	bird	1970 - 1988	field record		RDB-NT:Brd	1,222
SE186105	Collared Dove	<i>Streptopelia decaocto</i>	bird	07/05/1997	field record		RDB-NT:Brd	310
SE201110	Common Gull	<i>Larus canus</i>	bird	06/08/2010	field record		BoCC-Amber	1,648
SE185120	Common Redpoll	<i>Acanthis flammea</i>	bird	1970 - 1988	field record		RDB-CR:Brd, RDB-VU:NonBrd; BoCC-Red	1,222
SE202111	Common Redpoll	<i>Acanthis flammea</i>	bird	2002 - 2003	field record	2 Count of Adult	RDB-CR:Brd, RDB-VU:NonBrd; BoCC-Red	1,763
SE201110	Cormorant	<i>Phalacrocorax carbo</i>	bird	16/06/2010	field record		RDB-NT:Brd	1,648
SE202111	Crossbill	<i>Loxia curvirostra</i>	bird	2002	field record		Sch1_part1	1,763

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE185120	Cuckoo	<i>Cuculus canorus</i>	bird	1970 - 1988	field record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP	1,222
SE186105	Cuckoo	<i>Cuculus canorus</i>	bird	07/05/1997	field record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP	310
SE201110	Cuckoo	<i>Cuculus canorus</i>	bird	07/05/2010	auditory record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP	1,648
SE201110	Cuckoo	<i>Cuculus canorus</i>	bird	08/05/2010	auditory record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP	1,648
SE201110	Cuckoo	<i>Cuculus canorus</i>	bird	13/06/2010	auditory record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP	1,648
SE202111	Cuckoo	<i>Cuculus canorus</i>	bird	2007	field record	1 Count of Adult Male; 1 Count of Adult Female	NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP	1,763
SE185120	Dipper	<i>Cinclus cinclus</i>	bird	1970 - 1988	field record		RDB-NT:Brd; BoCC-Amber	1,222
SE177111	Dunnock	<i>Prunella modularis</i>	bird	05/05/2019	field record		BoCC-Amber; WYBAP; Kirklees BAP	825
SE185120	Dunnock	<i>Prunella modularis</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,222
SE199106	Dunnock	<i>Prunella modularis</i>	bird	February 2002	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,445
SE199118	Dunnock	<i>Prunella modularis</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,761
SE202111	Dunnock	<i>Prunella modularis</i>	bird	2003	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,763
SE185120	Fieldfare	<i>Turdus pilaris</i>	bird	1970 - 1988	field record		Sch1_part1; RDB-CR(PE):Brd; BoCC-Red	1,222

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE186105	Fieldfare	<i>Turdus pilaris</i>	bird	07/05/1997	field record		Sch1_part1; RDB-CR(PE):Brd; BoCC-Red	310
SE201110	Fieldfare	<i>Turdus pilaris</i>	bird	01/10/2010	field record		Sch1_part1; RDB-CR(PE):Brd; BoCC-Red	1,648
SE201110	Fieldfare	<i>Turdus pilaris</i>	bird	January 2010 - February 2010	field record		Sch1_part1; RDB-CR(PE):Brd; BoCC-Red	1,648
SE202111	Fieldfare	<i>Turdus pilaris</i>	bird	2003	field record		Sch1_part1; RDB-CR(PE):Brd; BoCC-Red	1,763
SE17411134	Goldfinch	<i>Carduelis carduelis</i>	bird	07/07/2011		20 Count of Present	Kirklees BAP	1,190
SE185120	Goldfinch	<i>Carduelis carduelis</i>	bird	1970 - 1988	field record		Kirklees BAP	1,222
SE199118	Goldfinch	<i>Carduelis carduelis</i>	bird	1970 - 1988	field record		Kirklees BAP	1,761
SE202111	Goldfinch	<i>Carduelis carduelis</i>	bird	2002	field record		Kirklees BAP	1,763
SE185120	Greenfinch	<i>Chloris chloris</i>	bird	1970 - 1988	field record		RDB-EN:Brd; BoCC-Red	1,222
SE186105	Greenfinch	<i>Chloris chloris</i>	bird	07/05/1997	field record		RDB-EN:Brd; BoCC-Red	310
SE201110	Greenfinch	<i>Chloris chloris</i>	bird	01/07/2010	field record		RDB-EN:Brd; BoCC-Red	1,648
SE1841310882	Grey Heron	<i>Ardea cinerea</i>	bird	12/04/2012		1 Count	RDB-NT:Brd	115
SE186105	Grey Partridge	<i>Perdix perdix</i>	bird	07/05/1997	field record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	310
SE1876010240	Grey Partridge	<i>Perdix perdix</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	614

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SE1881010320	Grey Partridge	<i>Perdix perdix</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	574
SE185120	Grey Wagtail	<i>Motacilla cinerea</i>	bird	1970 - 1988	field record		RDB-NT:Brd; BoCC-Amber	1,222
SE201110	Grey Wagtail	<i>Motacilla cinerea</i>	bird	01/10/2010	field record		RDB-NT:Brd; BoCC-Amber	1,648
SE201110	Grey Wagtail	<i>Motacilla cinerea</i>	bird	23/08/2010	field record		RDB-NT:Brd; BoCC-Amber	1,648
SE201110	Hobby	<i>Falco subbuteo</i>	bird	22/08/2010	field record		Sch1_part1	1,648
SE202111	Hobby	<i>Falco subbuteo</i>	bird	2002	field record		Sch1_part1	1,763
SE202111	Hobby	<i>Falco subbuteo</i>	bird	2007	field record		Sch1_part1	1,763
SE185120	House Martin	<i>Delichon urbicum</i>	bird	1970 - 1988	field record		RDB-VU:Brd; BoCC-Red	1,222
SE200113	House Martin	<i>Delichon urbicum</i>	bird	2003	field record		RDB-VU:Brd; BoCC-Red	1,620
SE201110	House Martin	<i>Delichon urbicum</i>	bird	01/09/2010	field record		RDB-VU:Brd; BoCC-Red	1,648
SE201110	House Martin	<i>Delichon urbicum</i>	bird	07/04/2010	field record		RDB-VU:Brd; BoCC-Red	1,648
SE201110	House Martin	<i>Delichon urbicum</i>	bird	30/09/2010	field record		RDB-VU:Brd; BoCC-Red	1,648
SE202111	House Martin	<i>Delichon urbicum</i>	bird	2003	field record		RDB-VU:Brd; BoCC-Red	1,763
SE202111	House Martin	<i>Delichon urbicum</i>	bird	2007	field record		RDB-VU:Brd; BoCC-Red	1,763
SE185120	House Sparrow	<i>Passer domesticus</i>	bird	1970 - 1988	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,222
SE186105	House Sparrow	<i>Passer domesticus</i>	bird	07/05/1997	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	310
SE199118	House Sparrow	<i>Passer domesticus</i>	bird	1970 - 1988	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,761

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE201110	House Sparrow	<i>Passer domesticus</i>	bird	01/08/2010	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,648
SE202111	House Sparrow	<i>Passer domesticus</i>	bird	2003	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,763
SE1789012300	Kestrel	<i>Falco tinnunculus</i>	bird	30/07/2012	nest		RDB-VU:Brd; BoCC-Amber; WYBAP; Kirklees BAP	1,625
SE201110	Kestrel	<i>Falco tinnunculus</i>	bird	16/03/2010	field record		RDB-VU:Brd; BoCC-Amber; WYBAP; Kirklees BAP	1,648
SE185120	Kingfisher	<i>Alcedo atthis</i>	bird	1970 - 1988	field record		Sch1_part1	1,222
SE169117	Lapwing	<i>Vanellus vanellus</i>	bird	27/03/2019	field observation		NERC_s41; RDB-EN:Brd, RDB-VU:NonBrd; BoCC-Red; WY BAP; Kirklees BAP	1,810
SE201110	Lesser Black-backed Gull	<i>Larus fuscus</i>	bird	01/08/2010	field record		BoCC-Amber	1,648
SE201110	Lesser Redpoll	<i>Acanthis cabaret</i>	bird	01/10/2010	field record		NERC_s41	1,648
SE201110	Lesser Redpoll	<i>Acanthis cabaret</i>	bird	21/01/2010	field record		NERC_s41	1,648
SE202111	Lesser Redpoll	<i>Acanthis cabaret</i>	bird	2003	field record		NERC_s41	1,763
SE190121	Lesser Spotted Woodpecker	<i>Dryobates minor</i>	bird	13/07/2011	field record		RDB-EN:Brd; BoCC-Red	1,426
SE201110	Lesser Spotted Woodpecker	<i>Dryobates minor</i>	bird	14/01/2010	field record		RDB-EN:Brd; BoCC-Red	1,648
SE185120	Linnet	<i>Linaria cannabina</i>	bird	1970 - 1988	field record		RDB-NT:Brd; BoCC-Red; Kirklees BAP	1,222
SE1881010320	Linnet	<i>Linaria cannabina</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	RDB-NT:Brd; BoCC-Red; Kirklees BAP	574
SE201110	Linnet	<i>Linaria cannabina</i>	bird	01/03/2010	field record		RDB-NT:Brd; BoCC-Red; Kirklees BAP	1,648
SE201110	Linnet	<i>Linaria cannabina</i>	bird	04/01/2010	field record		RDB-NT:Brd; BoCC-Red; Kirklees BAP	1,648

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SE202111	Linnet	<i>Linaria cannabina</i>	bird	March 2003 - September 2003	field record	6-8 Count of Pair	RDB-NT:Brd; BoCC-Red; Kirklees BAP	1,763
SE185120	Mallard	<i>Anas platyrhynchos</i>	bird	1970 - 1988	field record		RDB-NT:NonBrd; BoCC-Amber	1,222
SE186105	Mallard	<i>Anas platyrhynchos</i>	bird	07/05/1997	field record		RDB-NT:NonBrd; BoCC-Amber	310
SE2000311966	Mallard	<i>Anas platyrhynchos</i>	bird	03/06/2015	field observation		RDB-NT:NonBrd; BoCC-Amber	1,942
SE200119	Mallard	<i>Anas platyrhynchos</i>	bird	04/12/2014			RDB-NT:NonBrd; BoCC-Amber	1,900
SE201110	Meadow Pipit	<i>Anthus pratensis</i>	bird	27/03/2010	field record		BoCC-Amber	1,648
SE185120	Mistle Thrush	<i>Turdus viscivorus</i>	bird	1970 - 1988	field record		RDB-VU:Brd; BoCC-Red	1,222
SE186105	Mistle Thrush	<i>Turdus viscivorus</i>	bird	07/05/1997	field record		RDB-VU:Brd; BoCC-Red	310
SE199118	Mistle Thrush	<i>Turdus viscivorus</i>	bird	1970 - 1988	field record		RDB-VU:Brd; BoCC-Red	1,761
SE200108	Mistle Thrush	<i>Turdus viscivorus</i>	bird	2003	field record		RDB-VU:Brd; BoCC-Red	1,534
SE201110	Mistle Thrush	<i>Turdus viscivorus</i>	bird	01/03/2010	field record		RDB-VU:Brd; BoCC-Red	1,648
SE202111	Mistle Thrush	<i>Turdus viscivorus</i>	bird	2003	field record		RDB-VU:Brd; BoCC-Red	1,763
SE2000311966	Moorhen	<i>Gallinula chloropus</i>	bird	03/06/2015	field observation		RDB-VU:Brd; BoCC-Amber	1,942
SE200119	Moorhen	<i>Gallinula chloropus</i>	bird	04/12/2014			RDB-VU:Brd; BoCC-Amber	1,900
SE185120	Pied Flycatcher	<i>Ficedula hypoleuca</i>	bird	1970 - 1988	field record		RDB-VU:Brd; BoCC-Amber	1,222
SE201110	Pink-footed Goose	<i>Anser brachyrhynchus</i>	bird	01/10/2010	field record		BoCC-Amber	1,648
SE201110	Pink-footed Goose	<i>Anser brachyrhynchus</i>	bird	15/02/2010	field record		BoCC-Amber	1,648

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SE201110	Redpoll (Common\Lesser)	<i>Acanthis flammea/cabaret</i>	bird	21/04/2010	field record		RDB-CR:Brd, RDB-VU:NonBrd; BoCC-Red	1,648
SE1711	Redshank	<i>Tringa totanus</i>	bird	Unknown	field observation		RDB-NT:NonBrd, RDB-VU:Brd; BoCC-Amber	1,475
SE185120	Redwing	<i>Turdus iliacus</i>	bird	1970 - 1988	field record		Sch1_part1; RDB-CR:Brd; BoCC-Amber	1,222
SE186105	Redwing	<i>Turdus iliacus</i>	bird	07/05/1997	field record		Sch1_part1; RDB-CR:Brd; BoCC-Amber	310
SE201110	Redwing	<i>Turdus iliacus</i>	bird	01/10/2010	field record		Sch1_part1; RDB-CR:Brd; BoCC-Amber	1,648
SE201110	Redwing	<i>Turdus iliacus</i>	bird	30/09/2010	field record		Sch1_part1; RDB-CR:Brd; BoCC-Amber	1,648
SE201110	Redwing	<i>Turdus iliacus</i>	bird	January 2010 - February 2010	field record		Sch1_part1; RDB-CR:Brd; BoCC-Amber	1,648
SE202111	Redwing	<i>Turdus iliacus</i>	bird	2003	field record		Sch1_part1; RDB-CR:Brd; BoCC-Amber	1,763
SE190121	Ring Ouzel	<i>Turdus torquatus</i>	bird	13/07/2011	field record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	1,426
SE181116	Rook	<i>Corvus frugilegus</i>	bird	20/06/2013	field observation		RDB-NT:Brd; BoCC-Amber	897
SE185120	Rook	<i>Corvus frugilegus</i>	bird	1970 - 1988	field record		RDB-NT:Brd; BoCC-Amber	1,222
SE199106	Rook	<i>Corvus frugilegus</i>	bird	February 2002	field record		RDB-NT:Brd; BoCC-Amber	1,445
SE1852009830	Skylark	<i>Alauda arvensis</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	949
SE201110	Skylark	<i>Alauda arvensis</i>	bird	01/10/2010	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,648

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SE201110	Skylark	<i>Alauda arvensis</i>	bird	30/09/2010	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,648
SE177111	Song Thrush	<i>Turdus philomelos</i>	bird	05/05/2019	field record		BoCC-Amber; WYBAP; Kirklees BAP	825
SE1811	Song Thrush	<i>Turdus philomelos</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	511
SE181116	Song Thrush	<i>Turdus philomelos</i>	bird	20/06/2013	field observation		BoCC-Amber; WYBAP; Kirklees BAP	897
SE185120	Song Thrush	<i>Turdus philomelos</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,222
SE186105	Song Thrush	<i>Turdus philomelos</i>	bird	07/05/1997	field record		BoCC-Amber; WYBAP; Kirklees BAP	310
SE186105	Song Thrush	<i>Turdus philomelos</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	310
SE199118	Song Thrush	<i>Turdus philomelos</i>	bird	1970 - 1988	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,761
SE201110	Song Thrush	<i>Turdus philomelos</i>	bird	01/03/2010	auditory record		BoCC-Amber; WYBAP; Kirklees BAP	1,648
SE201110	Song Thrush	<i>Turdus philomelos</i>	bird	01/03/2010	field record		BoCC-Amber; WYBAP; Kirklees BAP	1,648
SE202111	Song Thrush	<i>Turdus philomelos</i>	bird	2003	field record	2 Count of Breeding Pair	BoCC-Amber; WYBAP; Kirklees BAP	1,763
SE185120	Sparrowhawk	<i>Accipiter nisus</i>	bird	1970 - 1988	field record		RDB-NT:Brd; BoCC-Amber	1,222
SE186105	Sparrowhawk	<i>Accipiter nisus</i>	bird	07/05/1997	field record		RDB-NT:Brd; BoCC-Amber	310
SE201110	Sparrowhawk	<i>Accipiter nisus</i>	bird	01/07/2010	field record		RDB-NT:Brd; BoCC-Amber	1,648
SE185120	Spotted Flycatcher	<i>Muscicapa striata</i>	bird	1970 - 1988	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,222

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SE186105	Spotted Flycatcher	<i>Muscicapa striata</i>	bird	07/05/1997	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	310
SE185120	Starling	<i>Sturnus vulgaris</i>	bird	1970 - 1988	field record		RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	1,222
SE186105	Starling	<i>Sturnus vulgaris</i>	bird	07/05/1997	field record		RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	310
SE199118	Starling	<i>Sturnus vulgaris</i>	bird	1970 - 1988	field record		RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	1,761
SE186105	Stock Dove	<i>Columba oenas</i>	bird	07/05/1997	field record		BoCC-Amber; Kirklees BAP	310
SE1789012300	Swallow	<i>Hirundo rustica</i>	bird	30/07/2012	nest		WYBAP; Kirklees BAP	1,625
SE1834412195	Swallow	<i>Hirundo rustica</i>	bird	08/09/2011	nest	2 Count	WYBAP; Kirklees BAP	1,421
SE185120	Swallow	<i>Hirundo rustica</i>	bird	1970 - 1988	field record		WYBAP; Kirklees BAP	1,222
SE201110	Swallow	<i>Hirundo rustica</i>	bird	01/09/2010	field record		WYBAP; Kirklees BAP	1,648
SE201110	Swallow	<i>Hirundo rustica</i>	bird	16/04/2010	field record		WYBAP; Kirklees BAP	1,648
SE202111	Swallow	<i>Hirundo rustica</i>	bird	2003	field record		WYBAP; Kirklees BAP	1,763
SE202111	Swallow	<i>Hirundo rustica</i>	bird	2007	field record		WYBAP; Kirklees BAP	1,763
SE201110	Swift	<i>Apus apus</i>	bird	03/05/2010	field record		RDB-EN:Brd; BoCC-Red; WYBAP	1,648
SE201110	Swift	<i>Apus apus</i>	bird	30/09/2010	field record		RDB-EN:Brd; BoCC-Red; WYBAP	1,648
SE202111	Swift	<i>Apus apus</i>	bird	2003	field record		RDB-EN:Brd; BoCC-Red; WYBAP	1,763
SE185120	Tawny Owl	<i>Strix aluco</i>	bird	1970 - 1988	field record		RDB-NT:Brd; BoCC-Amber	1,222
SE186105	Tawny Owl	<i>Strix aluco</i>	bird	07/05/1997	field record		RDB-NT:Brd; BoCC-Amber	310
SE199118	Tawny Owl	<i>Strix aluco</i>	bird	1970 - 1988	field record		RDB-NT:Brd; BoCC-Amber	1,761
SE201110	Tawny Owl	<i>Strix aluco</i>	bird	January 2010 -	auditory record		RDB-NT:Brd; BoCC-Amber	1,648

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				February 2010				
SE185120	Tree Pipit	<i>Anthus trivialis</i>	bird	1970 - 1988	field record		NERC_s41; BoCC-Red; WYBAP; Kirklees BAP	1,222
SE1798310893	Tree Sparrow	<i>Passer montanus</i>	bird	2009	field record	4 Count	NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	491
SE1798310893	Tree Sparrow	<i>Passer montanus</i>	bird	2010	field record	4 Count	NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	491
SE1798310893	Tree Sparrow	<i>Passer montanus</i>	bird	2011	field record	4 Count	NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	491
SE1798310893	Tree Sparrow	<i>Passer montanus</i>	bird	2012	field record	4 Count	NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	491
SE201110	Tree Sparrow	<i>Passer montanus</i>	bird	01/08/2010	field record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	1,648
SE185120	Whitethroat	<i>Curruca communis</i>	bird	1970 - 1988	field record		BoCC-Amber	1,222
SE186105	Whitethroat	<i>Curruca communis</i>	bird	07/05/1997	field record		BoCC-Amber	310
SE201110	Whitethroat	<i>Curruca communis</i>	bird	16/05/2010	field record		BoCC-Amber	1,648
SE201110	Whitethroat	<i>Curruca communis</i>	bird	17/05/2010	field record		BoCC-Amber	1,648
SE201110	Willow Tit	<i>Poecile montanus</i>	bird	17/08/2010	field record		RDB-EN:Brd; BoCC-Red; Kirklees BAP	1,648
SE202111	Willow Tit	<i>Poecile montanus</i>	bird	2003	field record		RDB-EN:Brd; BoCC-Red; Kirklees BAP	1,763
SE202111	Willow Tit	<i>Poecile montanus</i>	bird	July 2002 - September 2002	field record		RDB-EN:Brd; BoCC-Red; Kirklees BAP	1,763

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SE1811	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	1970 - 1988	field record		BoCC-Amber	511
SE185120	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	1970 - 1988	field record		BoCC-Amber	1,222
SE186105	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	07/05/1997	field record		BoCC-Amber	310
SE199118	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	1970 - 1988	field record		BoCC-Amber	1,761
SE201110	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	22/04/2010	field record		BoCC-Amber	1,648
SE202111	Willow Warbler	<i>Phylloscopus trochilus</i>	bird	2003	field record		BoCC-Amber	1,763
SE199118	Wood Warbler	<i>Phylloscopus sibilatrix</i>	bird	1970 - 1988	field record		NERC_s41; RDB-VU:Brd; BoCC-Red; WYBAP; Kirklees BAP	1,761
SE185120	Woodcock	<i>Scolopax rusticola</i>	bird	1970 - 1988	field record		RDB-VU:Brd; BoCC-Red; Kirklees BAP	1,222
SE186105	Woodcock	<i>Scolopax rusticola</i>	bird	07/05/1997	field record		RDB-VU:Brd; BoCC-Red; Kirklees BAP	310
SE1811	Woodpigeon	<i>Columba palumbus</i>	bird	1970 - 1988	field record		BoCC-Amber	511
SE181116	Woodpigeon	<i>Columba palumbus</i>	bird	20/06/2013	field observation		BoCC-Amber	897
SE185120	Woodpigeon	<i>Columba palumbus</i>	bird	1970 - 1988	field record		BoCC-Amber	1,222
SE186105	Woodpigeon	<i>Columba palumbus</i>	bird	07/05/1997	field record		BoCC-Amber	310
SE197108	Woodpigeon	<i>Columba palumbus</i>	bird	12/08/2015	field observation		BoCC-Amber	1,235
SE199118	Woodpigeon	<i>Columba palumbus</i>	bird	1970 - 1988	field record		BoCC-Amber	1,761
SE1811	Wren	<i>Troglodytes troglodytes</i>	bird	1970 - 1988	field record		BoCC-Amber	511

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE181116	Wren	<i>Troglodytes troglodytes</i>	bird	20/06/2013	field observation		BoCC-Amber	897
SE185120	Wren	<i>Troglodytes troglodytes</i>	bird	1970 - 1988	field record		BoCC-Amber	1,222
SE186105	Wren	<i>Troglodytes troglodytes</i>	bird	07/05/1997	field record		BoCC-Amber	310
SE190108	Wren	<i>Troglodytes troglodytes</i>	bird	13/05/2015 - 14/05/2015	field observation		BoCC-Amber	537
SE190121	Wren	<i>Troglodytes troglodytes</i>	bird	13/07/2011	field record		BoCC-Amber	1,426
SE199106	Wren	<i>Troglodytes troglodytes</i>	bird	February 2002	field record		BoCC-Amber	1,445
SE199118	Wren	<i>Troglodytes troglodytes</i>	bird	1970 - 1988	field record		BoCC-Amber	1,761
SE201110	Yellow Wagtail	<i>Motacilla flava</i>	bird	16/09/2010	field record		RDB-NT:Brd; BoCC-Red; WYBAP; Kirklees BAP	1,648
SE1845010040	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP	738
SE185120	Yellowhammer	<i>Emberiza citrinella</i>	bird	1970 - 1988	field record		NERC_s41; BoCC-Red; WYBAP	1,222
SE186105	Yellowhammer	<i>Emberiza citrinella</i>	bird	07/05/1997	field record		NERC_s41; BoCC-Red; WYBAP	310
SE1881010320	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP	574
SE1884010320	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP	593
SE1895010140	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP	802
SE1902010360	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP	696
SE1920010730	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP	737

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SE1928010500	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/05/2000 - 15/06/2000	field record	1 Count of Breeding Pair	NERC_s41; BoCC-Red; WYBAP	862
SE201110	Yellowhammer	<i>Emberiza citrinella</i>	bird	01/10/2010	field record		NERC_s41; BoCC-Red; WYBAP	1,648
SE201110	Yellowhammer	<i>Emberiza citrinella</i>	bird	January 2010 - February 2010	field record		NERC_s41; BoCC-Red; WYBAP	1,648
SE1711	Scots Pine	<i>Pinus sylvestris</i>	conifer	Unknown	field observation		NS-excludes	1,475
SE180112	Scots Pine	<i>Pinus sylvestris</i>	conifer	19/06/2004	field record		NS-excludes	625
SE181117	Scots Pine	<i>Pinus sylvestris</i>	conifer	20/06/2013	field observation	R Range of DAFOR	NS-excludes	990
SE186105	Scots Pine	<i>Pinus sylvestris</i>	conifer	07/05/1997	field record	O Range of DAFOR	NS-excludes	310
SE186105	Scots Pine	<i>Pinus sylvestris</i>	conifer	14/06/2002	field record	O Range of DAFOR	NS-excludes	310
SE1711	Bitter-vetch	<i>Lathyrus linifolius</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE17411134	Bitter-vetch	<i>Lathyrus linifolius</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE17911125	Bitter-vetch	<i>Lathyrus linifolius</i>	flowering plant	09/06/2011	field observation		RDB-NT	725
SE180112	Bitter-vetch	<i>Lathyrus linifolius</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE18871175	Bitter-vetch	<i>Lathyrus linifolius</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,053
SE18991232	Bitter-vetch	<i>Lathyrus linifolius</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,629
SE19071213	Bitter-vetch	<i>Lathyrus linifolius</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,481
SE1711	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	Unknown	field observation		Sch8; Kirklees BAP	1,475

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE17411134	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	07/07/2011	field observation		Sch8; Kirklees BAP	1,190
SE1757410995	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	01/07/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	912
SE177111	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	05/05/2019	field record	1 Count of a	Sch8; Kirklees BAP	825
SE17861112	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	09/06/2011	field observation		Sch8; Kirklees BAP	691
SE1787010010	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	LA Count of DAFOR	Sch8; Kirklees BAP	968
SE179113	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	05/05/2019	field record	1 Count of a	Sch8; Kirklees BAP	766
SE180112	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	19/06/2004	field record		Sch8; Kirklees BAP	625
SE180115	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	20/06/2013	field observation	O Range of DAFOR	Sch8; Kirklees BAP	856
SE180120	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	22/05/2002	field observation		Sch8; Kirklees BAP	1,305
SE181117	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	20/06/2013	field observation	R Range of DAFOR	Sch8; Kirklees BAP	990
SE1813009770	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	1,060
SE1842010160	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	F Count of DAFOR	Sch8; Kirklees BAP	619
SE1848711210	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	19/05/2015	field observation	R Count of DAFOR	Sch8; Kirklees BAP	433
SE1858411176	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	19/05/2015	field observation	R Count of DAFOR	Sch8; Kirklees BAP	416
SE1860011108	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	19/05/2015	field observation	O/LA Count of DAFOR	Sch8; Kirklees BAP	357
SE186105	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	07/05/1997	field record	LA Range of DAFOR	Sch8; Kirklees BAP	310

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SE186105	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	14/06/2002	field record	LA Range of DAFOR	Sch8; Kirklees BAP	310
SE1864010720	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	187
SE1867010530	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	323
SE1877810878	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	331
SE18871175	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	21/06/2011	field observation		Sch8; Kirklees BAP	1,053
SE1888010850	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	Sch8; Kirklees BAP	423
SE1889010940	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	LA Count of DAFOR	Sch8; Kirklees BAP	456
SE18921175	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	21/06/2011	field observation	O Count of DAFOR	Sch8; Kirklees BAP	1,074
SE1897010690	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	A Count of DAFOR	Sch8; Kirklees BAP	514
SE1926010820	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	Sch8; Kirklees BAP	797
SE1928010790	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	F Count of DAFOR	Sch8; Kirklees BAP	816
SE194108	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015	field observation	O/LA Count of DAFOR	Sch8; Kirklees BAP	936
SE195109	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	13/05/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	1,042
SE1953011580	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	03/06/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	1,333
SE1955511973	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	03/06/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	1,617
SE1964911884	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	03/06/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	1,620

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SE197108	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	12/08/2015	field observation	O Count of DAFOR	Sch8; Kirklees BAP	1,235
SE1994011940	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	03/06/2015	field observation	O/LA Count of DAFOR	Sch8; Kirklees BAP	1,877
SE202111	Bluebell	<i>Hyacinthoides non-scripta</i>	flowering plant	01/07/2001	field record		Sch8; Kirklees BAP	1,763
SE1711	Common Centaury	<i>Centaureum erythraea</i>	flowering plant	Unknown	field observation		Kirklees BAP	1,475
SE180112	Common Centaury	<i>Centaureum erythraea</i>	flowering plant	19/06/2004	field record		Kirklees BAP	625
SE188127	Common Centaury	<i>Centaureum erythraea</i>	flowering plant	Unknown	field record		Kirklees BAP	1,951
SE1711	Common Cottongrass	<i>Eriophorum angustifolium</i>	flowering plant	Unknown	field observation		RDB-VU	1,475
SE180112	Common Cottongrass	<i>Eriophorum angustifolium</i>	flowering plant	19/06/2004	field record		RDB-VU	625
SE186105	Common Cow-wheat	<i>Melampyrum pratense</i>	flowering plant	07/05/1997	field record	LA Range of DAFOR	RDB-NT	310
SE186105	Common Cow-wheat	<i>Melampyrum pratense</i>	flowering plant	14/06/2002	field record	LA Range of DAFOR	RDB-NT	310
SE1863010610	Common Cow-wheat	<i>Melampyrum pratense</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	237
SE1711	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE17411134	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE1787010010	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	968
SE180112	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE1858410652	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	175

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SE186105	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	07/05/1997	field record	O Range of DAFOR	RDB-NT	310
SE186105	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	14/06/2002	field record	O Range of DAFOR	RDB-NT	310
SE18991232	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,629
SE1908410791	Common Valerian	<i>Valeriana officinalis</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	620
SE1711	Cornflower	<i>Centaurea cyanus</i>	flowering plant	Unknown	field observation		NERC_s41; WYBAP	1,475
SE180112	Cornflower	<i>Centaurea cyanus</i>	flowering plant	19/06/2004	field record		NERC_s41; WYBAP	625
SE18871175	Crosswort	<i>Cruciata laevipes</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,053
SE18921175	Crosswort	<i>Cruciata laevipes</i>	flowering plant	21/06/2011	field observation	O Count of DAFOR	RDB-NT	1,074
SE19071213	Crosswort	<i>Cruciata laevipes</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,481
SE197108	Crosswort	<i>Cruciata laevipes</i>	flowering plant	12/08/2015	field observation	R Count of DAFOR	RDB-NT	1,235
SE200107	Crosswort	<i>Cruciata laevipes</i>	flowering plant	February 2002	field record		RDB-NT	1,536
SE1711	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE17411134	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE180112	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE186105	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	07/05/1997	field record	O Range of DAFOR	RDB-NT	310
SE186105	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	14/06/2002	field record	O Range of DAFOR	RDB-NT	310

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SE18871175	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,053
SE18921175	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	21/06/2011	field observation	R Count of DAFOR	RDB-NT	1,074
SE1989510819	Devil's-bit Scabious	<i>Succisa pratensis</i>	flowering plant	12/08/2015	field observation	R Count of DAFOR	RDB-NT	1,430
SE17911125	Fen Bedstraw	<i>Galium uliginosum</i>	flowering plant	09/06/2011	field observation		VC63:Nv-Occ	725
SE1711	Field Scabious	<i>Knautia arvensis</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE180112	Field Scabious	<i>Knautia arvensis</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE1711	Harebell	<i>Campanula rotundifolia</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE17411134	Harebell	<i>Campanula rotundifolia</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE180112	Harebell	<i>Campanula rotundifolia</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE202111	Harebell	<i>Campanula rotundifolia</i>	flowering plant	01/07/2001	field record		RDB-NT	1,763
SE17411134	Heath Speedwell	<i>Veronica officinalis</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE186105	Heather	<i>Calluna vulgaris</i>	flowering plant	07/05/1997	field record	LF Range of DAFOR	RDB-NT	310
SE186105	Heather	<i>Calluna vulgaris</i>	flowering plant	14/06/2002	field record	LF Range of DAFOR	RDB-NT	310
SE1863010610	Heather	<i>Calluna vulgaris</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	237
SE1888010850	Heather	<i>Calluna vulgaris</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	423
SE1914010860	Heather	<i>Calluna vulgaris</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	681

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SE1711	Lesser Spearwort	<i>Ranunculus flammula</i>	flowering plant	Unknown	field observation		RDB-VU	1,475
SE17411134	Lesser Spearwort	<i>Ranunculus flammula</i>	flowering plant	07/07/2011	field observation		RDB-VU	1,190
SE17911125	Lesser Spearwort	<i>Ranunculus flammula</i>	flowering plant	09/06/2011	field observation		RDB-VU	725
SE180112	Lesser Spearwort	<i>Ranunculus flammula</i>	flowering plant	19/06/2004	field record		RDB-VU	625
SE1908410791	Lesser Spearwort	<i>Ranunculus flammula</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-VU	620
SE180120	Marsh Stitchwort	<i>Stellaria palustris</i>	flowering plant	22/05/2002	field observation		NERC_s41; RDB-VU; VC63:Nv-Occ	1,305
SE17101117	Mat-grass	<i>Nardus stricta</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,414
SE1711	Mat-grass	<i>Nardus stricta</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE17191122	Mat-grass	<i>Nardus stricta</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,343
SE17411134	Mat-grass	<i>Nardus stricta</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE1757410995	Mat-grass	<i>Nardus stricta</i>	flowering plant	01/07/2015	field observation	O Count of DAFOR	RDB-NT	912
SE1775111068	Mat-grass	<i>Nardus stricta</i>	flowering plant	01/07/2015	field observation	F Count of DAFOR	RDB-NT	766
SE180112	Mat-grass	<i>Nardus stricta</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE186105	Moschatel	<i>Adoxa moschatellina</i>	flowering plant	07/05/1997	field record	R Range of DAFOR	Kirklees BAP	310
SE186105	Moschatel	<i>Adoxa moschatellina</i>	flowering plant	14/06/2002	field record	R Range of DAFOR	Kirklees BAP	310
SE186105	Moschatel	<i>Adoxa moschatellina</i>	flowering plant	Unknown	field record		Kirklees BAP	310

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SE188116	Moschatel	<i>Adoxa moschatellina</i>	flowering plant	May 2014			Kirklees BAP	888
SE18991232	Pale Sedge	<i>Carex pallescens</i>	flowering plant	21/06/2011	field observation		VC63:Nv-Occ	1,629
SE17411134	Quaking-grass	<i>Briza media</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE1711	Ragged-Robin	<i>Silene flos-cuculi</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE17411134	Ragged-Robin	<i>Silene flos-cuculi</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190
SE17911125	Ragged-Robin	<i>Silene flos-cuculi</i>	flowering plant	09/06/2011	field observation		RDB-NT	725
SE180112	Ragged-Robin	<i>Silene flos-cuculi</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE18991232	Ragged-Robin	<i>Silene flos-cuculi</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,629
SE186105	Sanicle	<i>Sanicula europaea</i>	flowering plant	07/05/1997	field record	O Range of DAFOR	RDB-NT	310
SE186105	Sanicle	<i>Sanicula europaea</i>	flowering plant	14/06/2002	field record	O Range of DAFOR	RDB-NT	310
SE18921175	Small Scabious	<i>Scabiosa columbaria</i>	flowering plant	21/06/2011	field observation	R Count of DAFOR	VC63:Nv-Sct	1,074
SE17101117	Tormentil	<i>Potentilla erecta</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,414
SE1711	Tormentil	<i>Potentilla erecta</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE17191122	Tormentil	<i>Potentilla erecta</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,343
SE17301128	Tormentil	<i>Potentilla erecta</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,263
SE17411134	Tormentil	<i>Potentilla erecta</i>	flowering plant	07/07/2011	field observation		RDB-NT	1,190

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE1757410995	Tormentil	<i>Potentilla erecta</i>	flowering plant	01/07/2015	field observation	O Count of DAFOR	RDB-NT	912
SE1765311012	Tormentil	<i>Potentilla erecta</i>	flowering plant	01/07/2015	field observation	R Count of DAFOR	RDB-NT	840
SE1775111068	Tormentil	<i>Potentilla erecta</i>	flowering plant	01/07/2015	field observation	F Count of DAFOR	RDB-NT	766
SE17911125	Tormentil	<i>Potentilla erecta</i>	flowering plant	09/06/2011	field observation		RDB-NT	725
SE180112	Tormentil	<i>Potentilla erecta</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE180120	Tormentil	<i>Potentilla erecta</i>	flowering plant	22/05/2002	field observation		RDB-NT	1,305
SE18871175	Tormentil	<i>Potentilla erecta</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,053
SE18921175	Tormentil	<i>Potentilla erecta</i>	flowering plant	21/06/2011	field observation	R Count of DAFOR	RDB-NT	1,074
SE18971199	Tormentil	<i>Potentilla erecta</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,313
SE18991232	Tormentil	<i>Potentilla erecta</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,629
SE19071213	Tormentil	<i>Potentilla erecta</i>	flowering plant	21/06/2011	field observation		RDB-NT	1,481
SE202111	Tormentil	<i>Potentilla erecta</i>	flowering plant	01/07/2001	field record		RDB-NT	1,763
SE180120	Wild Strawberry	<i>Fragaria vesca</i>	flowering plant	22/05/2002	field observation		RDB-NT	1,305
SE1711	Wood Crane's-bill	<i>Geranium sylvaticum</i>	flowering plant	Unknown	field observation		RDB-NT	1,475
SE180112	Wood Crane's-bill	<i>Geranium sylvaticum</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE1711	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	Unknown	field observation		RDB-NT	1,475

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE177111	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	05/05/2019	field record	1 Count of o	RDB-NT	825
SE17861112	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	09/06/2011	field observation		RDB-NT	691
SE1787010010	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	968
SE179113	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	05/05/2019	field record	1 Count of r	RDB-NT	766
SE180112	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	19/06/2004	field record		RDB-NT	625
SE1842010160	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	619
SE1858410652	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	175
SE1860011108	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	19/05/2015	field observation	O Count of DAFOR	RDB-NT	357
SE186105	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	07/05/1997	field record	O Range of DAFOR	RDB-NT	310
SE186105	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	14/06/2002	field record	O Range of DAFOR	RDB-NT	310
SE1864010720	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	O Count of DAFOR	RDB-NT	187
SE1888010850	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	423
SE1908410791	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	O Count of DAFOR	RDB-NT	620
SE1914010860	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	RDB-NT	681
SE1953011580	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	03/06/2015	field observation	R Count of DAFOR	RDB-NT	1,333
SE1964911884	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	03/06/2015	field observation	O Count of DAFOR	RDB-NT	1,620

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SE197108	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	12/08/2015	field observation	O Count of DAFOR	RDB-NT	1,235
SE1994011940	Wood-sorrel	<i>Oxalis acetosella</i>	flowering plant	03/06/2015	field observation	O Count of DAFOR	RDB-NT	1,877
SE1812	Agabus biguttatus	<i>Agabus biguttatus</i>	insect - beetle (Coleoptera)	1948	field record		NS-excludes	1,305
SE180120	Ceutorhynchus urticae	<i>Datonychus urticae</i>	insect - beetle (Coleoptera)	Unknown	field record		RDB-R	1,305
SE176111	Elodes pseudominuta	<i>Elodes pseudominutus</i>	insect - beetle (Coleoptera)	19/06/2004	field record		NS-excludes	918
SE1812	Graveyard Beetle	<i>Rhizophagus parallelocollis</i>	insect - beetle (Coleoptera)	1948	field record		NS-includes	1,305
SE1812	Mantura rustica	<i>Mantura rustica</i>	insect - beetle (Coleoptera)	1948	field record		NS-includes	1,305
SE1812	Mantura rustica	<i>Mantura rustica</i>	insect - beetle (Coleoptera)	1948	field record		NS-includes	1,305
SE1812	Mycetoporus bimaculatus	<i>Mycetoporus bimaculatus</i>	insect - beetle (Coleoptera)	1948	field record		NR-includes	1,305
SE180120	Mycetoporus despectus	<i>Mycetoporus despectus</i>	insect - beetle (Coleoptera)	Unknown	field record		NS-includes	1,305
SE180120	Rhizophagus cribratus	<i>Rhizophagus cribratus</i>	insect - beetle (Coleoptera)	Unknown	field record		NS-includes	1,305

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SE1812	Rhizophagus cribratus	<i>Rhizophagus cribratus</i>	insect - beetle (Coleoptera)	Unknown	field record		NS-includes	1,305
SE176111	Wall	<i>Lasiommata megera</i>	insect - butterfly	19/06/2004	field record		NERC_s41; RDB-NT; WYBAP	918
SE180112	Wall	<i>Lasiommata megera</i>	insect - butterfly	19/06/2004	field record		NERC_s41; RDB-NT; WYBAP	625
SE180113	Wall	<i>Lasiommata megera</i>	insect - butterfly	19/06/2004	field record	1 Count of Adult	NERC_s41; RDB-NT; WYBAP	696
SE1811	Wall	<i>Lasiommata megera</i>	insect - butterfly	2001	field record		NERC_s41; RDB-NT; WYBAP	511
SE1811	Wall	<i>Lasiommata megera</i>	insect - butterfly	2001	field record		NERC_s41; RDB-NT; WYBAP	511
SE2011	Wall	<i>Lasiommata megera</i>	insect - butterfly	2004	field record		NERC_s41; RDB-NT; WYBAP	1,550
SE2011	Wall	<i>Lasiommata megera</i>	insect - butterfly	2006	field record		NERC_s41; RDB-NT; WYBAP	1,550
SE201110	Wall	<i>Lasiommata megera</i>	insect - butterfly	24/08/2010	field record		NERC_s41; RDB-NT; WYBAP	1,648
SE202112	Wall	<i>Lasiommata megera</i>	insect - butterfly	24/08/2010	field record		NERC_s41; RDB-NT; WYBAP	1,784
SE188108	White-letter Hairstreak	<i>Satyrrium w-album</i>	insect - butterfly	24/07/2010	field record	4 Count	Sch5_s9.5a; NERC_s41;RDB-EN; WYBAP	338
SE188108	White-letter Hairstreak	<i>Satyrrium w-album</i>	insect - butterfly	31/07/2010	field record	5 Count	Sch5_s9.5a; NERC_s41;RDB-EN; WYBAP	338
SE188114	White-letter Hairstreak	<i>Satyrrium w-album</i>	insect - butterfly	28/07/2007	field record	4 Count of Adult	Sch5_s9.5a; NERC_s41;RDB-EN; WYBAP	707
SE189114	White-letter Hairstreak	<i>Satyrrium w-album</i>	insect - butterfly	07/07/2004	field record	3 Count of Adult	Sch5_s9.5a; NERC_s41;RDB-EN; WYBAP	760

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SE189114	White-letter Hairstreak	<i>Satyrrium w-album</i>	insect - butterfly	07/07/2004	empty egg/egg case	1 Count	Sch5_s9.5a; NERC_s41;RDB-EN; WYBAP	760
SE201110	White-letter Hairstreak	<i>Satyrrium w-album</i>	insect - butterfly	31/07/2010	field record		Sch5_s9.5a; NERC_s41;RDB-EN; WYBAP	1,648
SE201110	Ghost Moth	<i>Hepialus humuli</i>	insect - moth	02/07/2001	trapped at mercury vapour light	1 Count of Adult	NERC_s41; WYBAP	1,648
SE201110	Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	insect - moth	2010	field record		NERC_s41; WYBAP	1,648
SE201110	Knot Grass	<i>Acronicta rumicis</i>	insect - moth	02/07/2001	trapped at mercury vapour light	1 Count of Adult	NERC_s41; WYBAP	1,648
SE16501039	Bats	<i>Vespertilionidae</i>	terrestrial mammal	10/08/2005	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,995
SE180127	Bats	<i>Vespertilionidae</i>	terrestrial mammal	05/04/2006	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,976
SE1915008927	Bats	<i>Vespertilionidae</i>	terrestrial mammal	February 2011	droppings		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,973
SE1968710162	Bats	<i>Vespertilionidae</i>	terrestrial mammal	28/06/2005	Roost (possible)	1 Count of Juvenile	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,368
SE1989310967	Bats	<i>Vespertilionidae</i>	terrestrial mammal	12/06/2003	Roost	180 Count of Adult	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,439
SE201110	Bats	<i>Vespertilionidae</i>	terrestrial mammal	May 2010 - October 2010	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,648
SE1810	Brown Hare	<i>Lepus europaeus</i>	terrestrial mammal	29/04/1988	field record	2 Count of Adult	NERC_s41; WYBAP; Kirklees BAP	904
SE1773911680	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	05/07/2017	Roost		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,155

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SE1773911680	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	05/07/2017	Roost		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,155
SE1789012300	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	30/07/2012	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,625
SE1833812196	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	01/06/2012	Roost (maternity)	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,423
SE1833812196	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	01/06/2012	Roost	22 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,423
SE1834212201	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	13/10/2021	Roost (maternity)		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,427
SE1834412195	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	08/09/2011	field record	14 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,421
SE1834412195	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	08/09/2011	Roost (maternity)	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,421
SE2004710650	Brown Long-eared Bat	<i>Plecotus auritus</i>	terrestrial mammal	28/05/2011	field record	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,586
SE200107	Daubenton's Bat	<i>Myotis daubentonii</i>	terrestrial mammal	24/08/2018	field record	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,536

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SE181116	European Rabbit	<i>Oryctolagus cuniculus</i>	terrestrial mammal	20/06/2013	field observation		GRL-NT	897
SE186105	European Rabbit	<i>Oryctolagus cuniculus</i>	terrestrial mammal	07/05/1997	field record		GRL-NT	310
SE186105	European Rabbit	<i>Oryctolagus cuniculus</i>	terrestrial mammal	14/06/2002	field record		GRL-NT	310
SE1789012300	Myotis Bat species	<i>Myotis</i>	terrestrial mammal	30/07/2012	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,625
SE1930209984	Myotis Bat species	<i>Myotis</i>	terrestrial mammal	24/08/2011	field record	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2	1,154
SE1765311711	Noctule Bat	<i>Nyctalus noctula</i>	terrestrial mammal	21/08/2017	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,233
SE17731167	Noctule Bat	<i>Nyctalus noctula</i>	terrestrial mammal	08/05/2017	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,152
SE1789012300	Noctule Bat	<i>Nyctalus noctula</i>	terrestrial mammal	30/07/2012	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,625
SE182088	Noctule Bat	<i>Nyctalus noctula</i>	terrestrial mammal	24/06/2014	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,994
SE200107	Noctule Bat	<i>Nyctalus noctula</i>	terrestrial mammal	24/08/2018	field record	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2;NERC_s41; WYBAP; Kirklees BAP	1,536
SE1670010500	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	19/08/2009	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,779

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SE167105	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	29/06/2011	foraging	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,779
SE1765311711	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	21/08/2017	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,233
SE1773911680	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	05/07/2017	Roost		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,155
SE1773911680	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	05/07/2017	Roost		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,155
SE1789012300	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	30/07/2012	Roost	2 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,625
SE182088	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	08/07/2014	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,994
SE1834412195	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	08/09/2011	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,421
SE1910109711	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	13/05/2009	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,242
SE1914908925	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	10/07/2012	Roost	2 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,975
SE1914908925	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	14/09/2011	Roost	2 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,975
SE1914908925	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	14/09/2011	field record	16 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,975
SE1920710987	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	24/11/2015	dung/droppings/frass/pellet, etc.		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	772

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SE1920710987	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	24/11/2015	Roost (potential)		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	772
SE1930209984	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	24/08/2011	Roost	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,154
SE1930209984	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	26/07/2011	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,154
SE200107	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	24/08/2018	field record	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,536
SE20021088	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	31/08/2012	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,557
SE2004710650	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	27/05/2011	Roost (transitional)	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,586
SE2020811084	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	01/09/2013	Roost	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,768
SE2022211057	Pipistrelle	<i>Pipistrellus pipistrellus</i>	terrestrial mammal	May 2014	foraging		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,777
SE1789012300	Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	terrestrial mammal	30/07/2012	field record		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; NERC_s41; WYBAP; Kirklees BAP	1,625
SE200107	Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	terrestrial mammal	24/08/2018	field record	1 Count	Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; NERC_s41; WYBAP; Kirklees BAP	1,536
SE1834212201	Whiskered Bat	<i>Myotis mystacinus</i>	terrestrial mammal	13/10/2021	Roost		Sch5_s9.4b/9.5a/9.4c; HabReg-Sch2; WYBAP; Kirklees BAP	1,427

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SE201110	Canada Goose	<i>Branta canadensis</i>	bird	09/08/2010	field record		Sch9-Part1	1,648
SE1711	Curly Waterweed	<i>Lagarosiphon major</i>	flowering plant	Unknown	field observation		Sch9-Part2	1,475
SE180112	Curly Waterweed	<i>Lagarosiphon major</i>	flowering plant	19/06/2004	field record		Sch9-Part2	625
SE1711	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	Unknown	field observation		Sch9-Part2	1,475
SE1796010084	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	O Count of DAFOR	Sch9-Part2	855
SE180112	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	19/06/2004	field record		Sch9-Part2	625
SE188115	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	797
SE188116	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	888
SE189117	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,020
SE189118	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,111
SE189119	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,204
SE189125	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,776
SE189126	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,873
SE189127	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,970
SE190121	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	13/07/2011	field record		Sch9-Part2	1,426

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE195109	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	13/05/2015	field observation	F Count of DAFOR	Sch9-Part2	1,042
SE197108	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	12/08/2015	field observation	O Count of DAFOR	Sch9-Part2	1,235
SE1974410795	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	12/08/2015	field observation	LA Count of DAFOR	Sch9-Part2	1,279
SE1989510819	Himalayan Balsam	<i>Impatiens glandulifera</i>	flowering plant	12/08/2015	field observation	O Count of DAFOR	Sch9-Part2	1,430
SE1863010610	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	13/05/2015 - 14/05/2015	field observation	R Count of DAFOR	Sch9-Part2	237
SE188115	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	31/10/2016	field record		Sch9-Part2	797
SE188116	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	31/10/2016	field record		Sch9-Part2	888
SE188116	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	May 2014			Sch9-Part2	888
SE189117	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,020
SE189118	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,111
SE189119	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	31/10/2016	field record		Sch9-Part2	1,204
SE190121	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	13/07/2011	field record		Sch9-Part2	1,426
SE20071073	Japanese Knotweed	<i>Fallopia japonica</i>	flowering plant	February 2002	field record		Sch9-Part2	1,604
SE1832410327	Lamiastrum galeobdolon subsp. argentatum	<i>Lamiastrum galeobdolon subsp. argentatum</i>	flowering plant	13/05/2015 - 14/05/2015	field observation		Sch9-Part2	471
SE181116	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	terrestrial mammal	20/06/2013	field observation		Sch9-Part1	897

Grid Ref	Common Name	Latin Name	Taxon Group	Date	Record Type	Abundance	Designation	Distance from site centroid (m)
SE186105	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	terrestrial mammal	07/05/1997	field record		Sch9-Part1	310
SE186105	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	terrestrial mammal	14/06/2002	field record		Sch9-Part1	310
SE194108	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	terrestrial mammal	13/05/2015	field observation		Sch9-Part1	936
SE196120	Eastern Grey Squirrel	<i>Sciurus carolinensis</i>	terrestrial mammal	03/06/2015	field observation		Sch9-Part1	1,667



Appendix D Statutory Biodiversity Condition Assessments

Ecological Impact Assessment and Biodiversity Net Gain
Assessment

Shepley Road

Newett Homes Limited

SLR Project No.: 424.065101.00001

24 April 2024



Appendix E Statutory Biodiversity Metric (supplied separately in Excel format)

Ecological Impact Assessment and Biodiversity Net Gain
Assessment

Shepley Road

Newett Homes Limited

SLR Project No.: 424.065101.00001

24 April 2024



Appendix F Landscape Masterplan

Ecological Impact Assessment and Biodiversity Net Gain
Assessment

Shepley Road

Newett Homes Limited

SLR Project No.: 424.065101.00001

24 April 2024



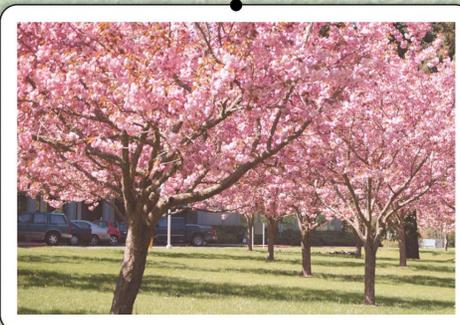
KEY

- Site boundary
- Existing trees (retained)
- Existing bramble (retained) - 176m²
- Existing bracken (retained) - 70m²
- Proposed turf (front gardens) - 984m²
- Proposed turf (rear gardens) - 4,668m²
- Grass verge (resilient grass seed mix) - 610m²
- Proposed POS tree
- Proposed street tree
- Proposed feature tree (eg. Cherry)
- Proposed feature tree (eg. Copper Beech)
- Proposed native woodland scrub mix - 267m²
- Enhanced grassland (shade tolerant) - 1,376m²
- Proposed ornamental/native shrub - 138m²
- Species rich meadow grassland - 5,965m²
- Recreational grassland - 765m²
- Formal low hedgerow - 356m linear
- Native mix hedgerow - 168m linear
- Proposed mixed native scrub - 196m²
- Wildflower meadows - 560m²
- Fruit/nut tree planting
- Spring flowering bulbs - 126m²



Lawns, hedgerows and ornamental planting will be a feature of the public/private spaces when travelling through the proposed development. This approach creates clear separation between the public and private realms whilst creating wildlife corridors through the newly created streets.

The opportunity to include some seasonal interest into the scheme will be explored at the detailed design stage. The use of ornamental cherry and copper beech trees could be incorporated into the scheme to provide some dramatic contrast to the streetscene. Evergreen shrub species will also be incorporated to balance the aesthetic of the scheme.



Attractive planting mixes will be created to excite the senses throughout the development. Emphasis will be placed on access points and key nodes within the development. Scent, movement, foliage and colour will be combined to create year round seasonal interest whilst boosting the biodiversity benefits of the scheme.



Rev	Date	Note

Shepley Road, Stocks



Landscape Masterplan

DWG Ref. H24-0004_001 | Drwn/Chkd By: SW | Scale - 1:500 @ A1 | Date: 15/04/24 | Client: Newett Homes



