

VISUAL IMPACT PROVISION

Peak District National Park (East) Overhead Line Scoping Report

July 2016



Front Cover: 4ZO overhead transmission line, Dunford Bridge, Peak District National Park

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1 Introduction

Proposed Scheme Overview

- 1.1 National Grid is seeking a Scoping Opinion from the Peak District National Park Authority and Barnsley Metropolitan Borough Council to underground a section of existing 4ZO overhead line (OHL) (hereafter referred to as the 'Visual Impact Provision (VIP) subsection') within, and adjacent to, the Peak District National Park designation.
- 1.2 The undergrounding of the VIP subsection includes the following main elements that comprise the 'proposed scheme' (details are presented in **Chapter 2**):
 - Removal of the existing SEC at Dunford Bridge, east of the Woodhead Tunnel;
 - Construction of a new SEC and replacement terminal pylon including permanent access (at the eastern end of the new underground cable) required to connect the new underground cables to the remaining existing OHL;
 - Underground cabling of approximately 1.6km (depending on exact location of SEC and route of cable alignment).
 - Removal of the existing VIP subsection including approximately 7 pylons and 1.8km of OHL (depending on exact location of the SEC).
 - A cable jointing building outside the entrance to the Woodhead tunnel within National Grid's existing operational compound; and
 - Jointing of the new underground cable to the existing cable within the Woodhead Tunnel.
- 1.3 This stakeholder driven proposed scheme forms part of the wider VIP project. Ofgem and National Grid have agreed a new set of price controls and incentives for the period from April 2013 to March 2021. This includes a provision of £500 million for electricity transmission owners to mitigate the visual impact of existing electricity infrastructure in nationally protected landscapes in Great Britain. For National Grid, which is the transmission owner in England and Wales, this means considering the effects of existing infrastructure on the visual amenity and landscapes of National Parks and AONBs.
- 1.4 Following the results of a landscape and visual impact assessment in 2014, covering all 571km of OHL within the scope of the VIP project, those sections of OHL which had the greatest visual impact on the surrounding landscape were identified. In September 2015, a Stakeholder Advisory Group (consisting of stakeholders with national remits for England and Wales) decided that four sections of OHL should be prioritised for detailed assessment.
- 1.5 The locations chosen are Dorset 4YA, New Forest 4YB, Peak District 4ZO and Snowdonia 4ZC. All sections were proposed as underground solutions, with Snowdonia having the potential for a cable tunnel if no direct bury option exists.

VIP Subsection & Overview of Area

- 1.6 The existing 4ZO 400kV OHL connects Stalybridge 400kV substation, Stocksbridge 400kV and Thorpe Marsh 400kV substations. The OHL was constructed between 1966 and 1967 with standard lattice pylon design and strung with twin and quad conductor

bundles along various sections. There is a high voltage cable section installed in the Woodhead Tunnel between Dunford Bridge and Woodhead connecting the eastern and western section of the OHL. The location of the National Grid 4ZO OHL and the VIP subsection in relation to the Peak District National Park are shown in **Figure 1.1**.

- 1.7 The focus of the VIP project is on the mitigation of landscape and visual impacts, and the assessment of these impacts is set out in the landscape and visual impact assessment Technical Report (National Grid, 2014). The OHL in this area is judged to have:
- **landscape impacts of a high level of importance** particularly relating to strong localised topographical variety around Dunford Bridge, together with the proximity of nearby areas of high conservation interest, recreational value and relative tranquillity, which all serve to increase the value of the landscape. Although the impact of the VIP subsection is geographically contained, the scale of impact is high with the terminal pylon and SEC being locally dominant man-made features.
 - **visual impacts of a high level of importance** with Dunford Bridge serving as a local gateway for visitors to the Pennine Moors. The pylons are skylined in views from visitors to the promoted Trans Pennine Trail car park, picnic area and walkers and cyclists on the Trans Pennine Trail National Cycle Route 62. The scale of visual impacts on the local community in and around Dunford Bridge is also considered to be high due to the proximity of the OHL and its elevated situation in relation to this settlement.
- 1.8 The VIP subsection runs eastwards from a SEC near to the eastern entrance of the Woodhead Tunnel at Dunford Bridge. It crosses the National Park Boundary, and then continues north over the Upper Don River and the Trans-Pennine Trail, south of the hamlet of Townhead towards Castle Hill. The VIP subsection is approximately 1.8km in length.
- 1.9 The 'search area for permanent development' (hereafter referred to as the 'search area') broadly follows the alignment of the VIP subsection as shown in the site identification drawing (see **Figure 1.2**). This overall search area was drawn based on available information when the scheme was taken forward by the Stakeholder Advisory Group (SAG) in September 2015, and was drawn sufficiently wide enough to take account of potential route alignment options. Since September a number of options have been considered within the search area. Further to more detailed engineering information and recent stakeholder engagement on options to cross the River Don, it is proposed as part of the emerging preference for the cable to run along the Trans Pennine Trail to a SEC located south of the river at Wogden Foot. Further details on alternatives will be provided within the Environmental Statement.

**NATIONAL GRID
PEAK DISTRICT NP
VIP PROJECT**

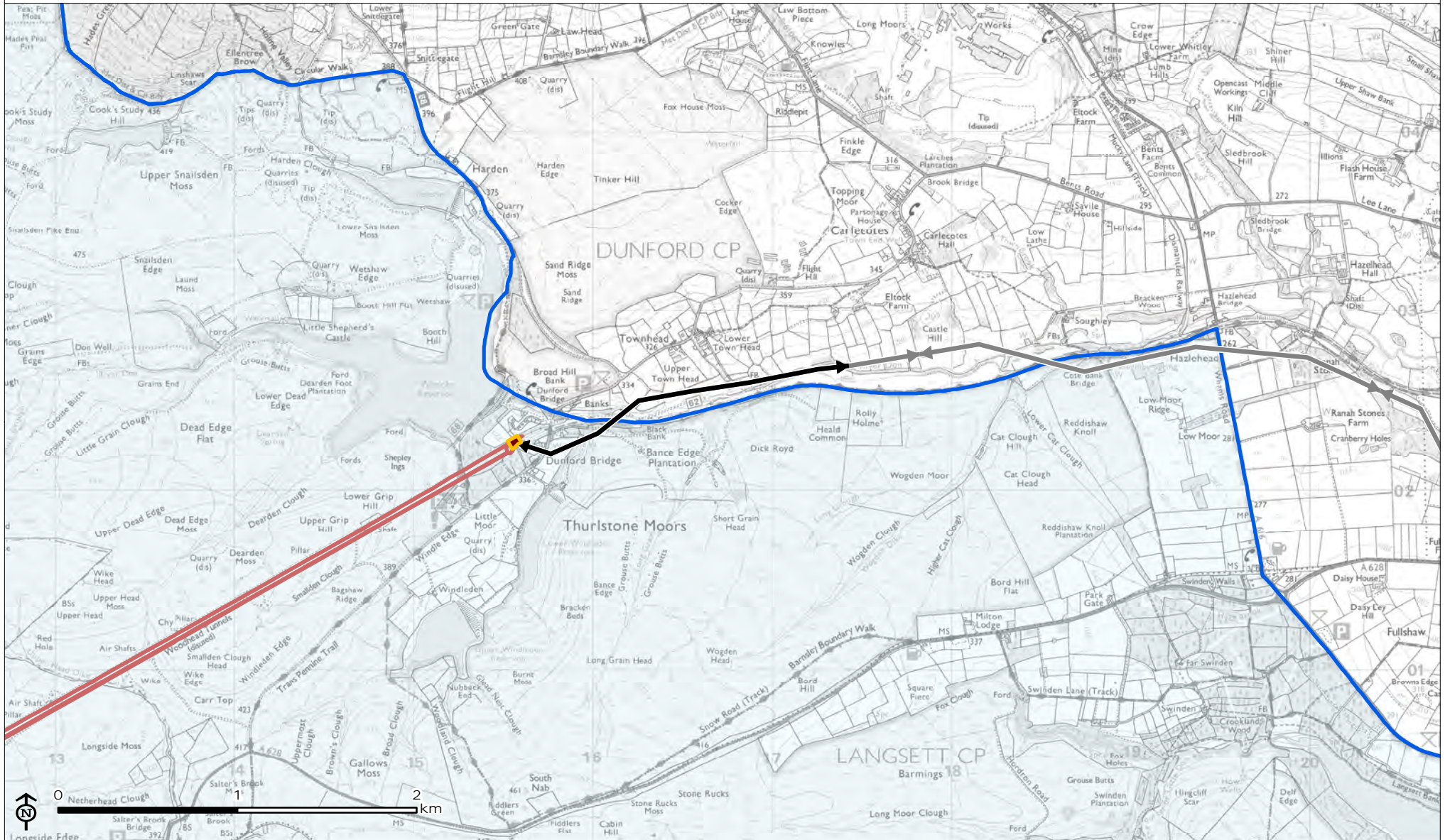
- Peak District NP
- VIP subsection
- 4ZO overhead line
- National Grid Dunford Bridge SEC

— Underground cable route



Source: Natural England, National Grid

Figure 1.1: 4ZO Overhead Line and VIP Subsection within and adjacent to Peak District NP









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Figure 1.2



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Legend

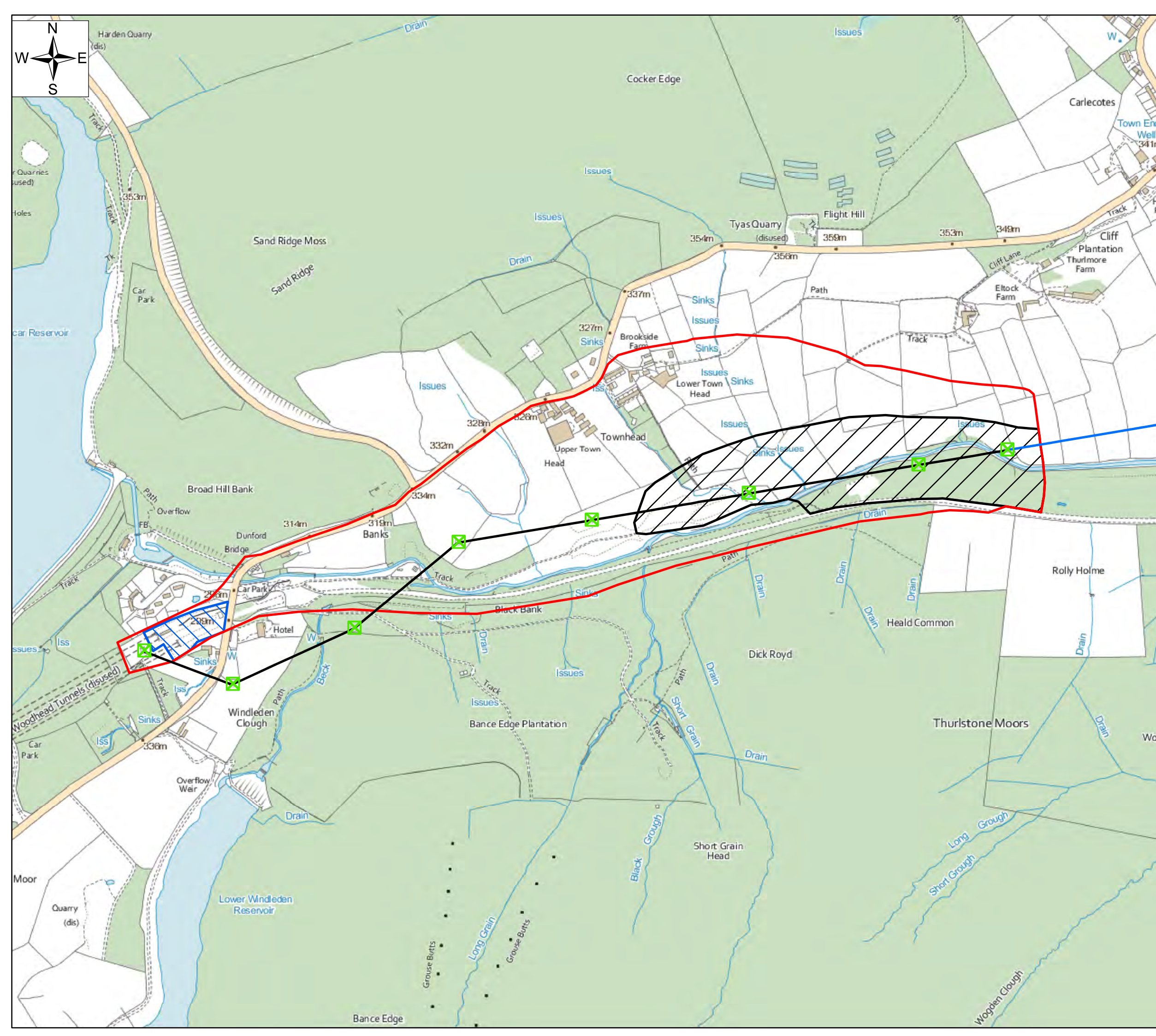
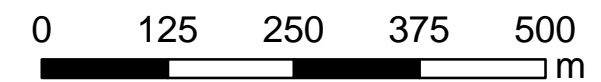
-  4ZO Pylon Locations
-  VIP Subsection
-  4ZO Overhead Line
-  Search Area for Permanent Development
-  Sealing End Compound Search Area
-  Cable Jointing Building to be located in this area

Scale

1:7,500

Set up size

A3



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Legislative Framework

Planning Application

- 1.10 A planning application would be submitted for either some or all elements of the proposed scheme (depending on the outcome of the 'screening exercise' – see below) under the Town and Country Planning Act 1990.

Screening and Scoping

- 1.11 A screening opinion has been received from the Peak District National Park Authority (PDNPA) stating that the proposed scheme would not be subject to Environmental Impact Assessment (EIA) under the Town and Country Planning (Environmental Impacts Assessment) Regulations 2011 (as amended 2015), the 'EIA Regulations', given the environmental impacts associated with the proposal are not significant.
- 1.12 A screening opinion is currently awaited from Barnsley Metropolitan Borough Council (BMBC) who have recently indicated that EIA may be required based on potentially significant impacts on a European Designation (the Peak District Moors (South Pennine Moors Phase 1) Special Protection Area – see Chapter 6 for details). National Grid is currently compiling information to address this with a Habitat Regulation Assessment Screening Report, but based on survey work undertaken to date is of the opinion that it is unlikely any significant impacts would arise on the SPA designation and, hence, the scheme would not be deemed EIA development.
- 1.13 It should be noted that, irrespective of the outcome of the Barnsley Metropolitan Borough Council Screening Opinion, a full assessment of the potential impacts of all elements of the scheme upon the environment would be undertaken and reported to a commensurate level either through a formal Environmental Statement (EIA development) or Environmental Report (non - EIA development).
- 1.14 However, for the purposes of this report and in order to progress with the appropriate surveys, and to make a request for a Scoping Opinion (whether formally under Regulation 13 of the EIA Regulations or otherwise informally), it is assumed that EIA may be required. For ease, future references in this report will be made to an ES and not an ER.
- 1.15 A response within EIA timescales is encouraged in order to be able to undertake the required surveys (notably ecology) within the programme/appropriate seasons. Due to the seasonal requirements of surveys the ecology scoping report chapter has been issued to Natural England and the Biodiversity Officers at PDNPA and BMBC for informal comments in advance of this request for a Scoping Opinion.
- 1.16 A scoping study has been undertaken in order to identify the potential impacts and issues relating to the proposed scheme.
- 1.17 This document is the report of the scoping study and:
- Summarises the assessment work already undertaken and ongoing;
 - Outlines the proposed scheme;
 - Describes the baseline conditions where they are known;
 - Identifies issues and concerns;
 - Sets out the assessment approach including proposed methodology, mitigation, cumulative effects;
 - Consideration of alternatives; and
 - Issues to be scoped out.
- 1.18 The purpose of this Scoping Report is to provide PDNPA and BMBC with the opportunity to comment on the assessment scope covering the entire proposed scheme which will

subsequently be reported in a single Environmental Statement (ES). The ES would be submitted to accompany a planning application for the proposed scheme.

Habitats Regulations Assessment

- 1.19 The UK is bound by the terms of the EC Habitats Directive, the EC Birds Directive and the Ramsar Convention. The aim of the Habitats Directive is to conserve natural habitats and wild species across Europe by establishing a network of sites known as Natura 2000 sites. Under Article 6 (3) of the Habitats Directive, an appropriate assessment (AA) is required if the 'plan or project' is likely to have a significant effect on a European site, either alone or in combination with other projects.
- 1.20 The following international designations are less than 500m from the western boundary of the search area:
- *South Pennine Moors Special Area of Conservation (SAC)* - Internationally important moorland principally designated for its Annex I habitats of European dry heath, blanket bogs and old sessile oak woods with holly and fern.
 - *Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA)* - Internationally important moorland designated for its Annex I breeding species of golden plover, merlin and short-eared owl.
- 1.21 Taking into account the proximity of the search area to these designated sites, there is the potential that the proposed scheme may have an impact on these designations. Discussions have commenced with Natural England with regard to screening for an AA for the proposed scheme and surveys are ongoing to support this.

General Assessment Methodology

Determination of Scope

- 1.22 The establishment of the scope for the environmental assessment process is an important stage in the assessment process and this section outlines, in general terms, the proposed temporal scope (covering construction, operation and decommissioning stages), the proposed spatial scope (the physical area over which changes to the environment are likely to occur) and the proposed technical scope (the environmental topics to be addressed in the assessment).
- 1.23 The temporal and spatial scope will vary between environmental topics. Where this is the case, topic-specific temporal and spatial definitions are provided in the technical chapters of this Scoping Report and will be clearly defined in the ES.

Temporal Scope

- 1.24 Potential significant effects will be assessed for all phases of the development (construction, operation and decommissioning).
- 1.25 The main construction phase is anticipated to start once all necessary approvals have been obtained (currently estimated to be late 2017 / early 2018) and continue for a period of approximately two years. Construction and decommissioning effects will often be temporary, short term effects.
- 1.26 With regard to landscape, the assessment of impacts extends to 15 years after operation starts to take account of growth in planting where this is provided by the proposed scheme (see also Chapter 5).
- 1.27 Operation is anticipated to last at least 40 years, in line with the design life of the electricity infrastructure.

Spatial Scope

- 1.28 The spatial scope of the assessment is the physical area over which changes to the environment are likely to occur as a result of the proposed scheme (the study area).
- 1.29 The spatial scope is a function of:
- The physical extent of the proposed scheme taking into account temporary and permanent land requirements; and
 - The nature of the baseline environment and the manner in which potential impacts are propagated.
- 1.30 The extent of the study area may vary between environmental topics and, where necessary is defined in the technical chapters of this Scoping Report and will be clearly defined in the ES, justifying the study areas and any flexibility required.

Technical Scope

- 1.31 The range of topics addressed in this report are referred to as the technical scope. Within each of these topics, those aspects of the environment that are considered to not give rise to, or experience, significant effects (either wholly or partially) are proposed to be scoped out.

Predicting and Assessing Significance of Effects

- 1.32 There is no statutory definition of what constitutes a 'significant' effect within the EIA Regulations. The determination of the significance of the effects is crucial to informing the decision-making process. The process typically involves consideration of two aspects of a potential effect, namely the sensitivity or value of the receptor or resource, and the magnitude of the impact that is occurring. The following are examples of the criteria that will be used (where appropriate to the issue being addressed) to inform the assessment of the significance of an effect:
- Aspects relating to the receptor or resource:
 - The value of the resource, based upon both empirical and intrinsic factors, and taking into account any legal or policy protection afforded, which is indicative of its value nationally or locally; and
 - The sensitivity of the receptor or resource to change, for example is the receptor likely to acclimatise to the change, or return once the project is decommissioned, or will it be irretrievably affected or lost. This will take into account legal and policy thresholds which are indicative of the ability of the resource to absorb change.
 - Aspects relating to the magnitude of impact:
 - The physical/geographical scale of the impact, though this will be relative to the scale of the receptor or resource.
 - The duration of the impact – will it be temporary, lasting for a few days or weeks, or long term, lasting many years?
 - The frequency of the impact – will it be permanent, or will it occur daily, monthly or annually?
 - The reversibility of the impact – can it be reversed after construction or following decommissioning?
 - Effectiveness of mitigation – is the mitigation proven to be effective?
 - Is the impact direct or indirect? Although unlikely to affect significance, it is sometimes important to differentiate between direct impacts (e.g. loss of habitat under the footprint of a new tourist attraction) or indirect impacts

(damage to habitat caused by additional visitors to the attraction, though outside the development footprint).

- 1.33 A combination of the magnitude of the impact under consideration and the sensitivity or value of the receiving environment / receptor can be used in considering the overall significance of an effect. The general approach adopted for classifying effects is outlined in **Table 1.1**.

Table 1.1 Classification of effects

Sensitivity / value of receptor	Magnitude of impact			
	High	Medium	Low	Very low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very low	Minor	Negligible	Negligible	Negligible

- 1.34 Further explanation of these significance levels is provided in Table 1.2.

Table 1.2 Significance Category Descriptions

Significance Category	Typical description
Major	<p>A large and detrimental change to a valuable/sensitive receptor; likely or apparent exceeding of accepted (often legal) threshold.</p> <p>A large and beneficial change, whereby the improvements to the baseline whereby previously poor conditions are replaced by new legal compliance or a major contribution is made to national targets.</p> <p>These effects may represent key factors in the decision making process. Potentially associated with sites and features of national importance or likely to be important considerations at a regional or district scale. Major effects may relate to resources or features which are unique and which, if lost, cannot be replaced or relocated.</p>
Moderate	<p>A medium scale change which, although not beyond an accepted threshold, is still considered to be generally unacceptable, unless balanced out by other significant positive benefits of a project. Likely to be in breach of planning policy, rather than legal statute.</p> <p>These effects, if adverse, are likely to be important at a local scale and on their own could have a material influence on decision making. A positive moderate effect is a medium scale change that is significant in that the baseline conditions are improved to the extent that guideline targets (e.g. UK BAP targets) are contributed to.</p>
Minor	<p>A small change that, whilst adverse, does not exceed legal or guideline standards. Unlikely to breach of planning policy.</p> <p>A small positive change, but not one that is likely to be a key factor in the overall balance of issues.</p> <p>These effects may be raised as local issues and may be of relevance in the detailed design of the project, but are unlikely to be critical in the decision making process.</p>
Negligible	<p>A very small change that is so small and unimportant that it is considered acceptable to disregard.</p> <p>Effects which are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error, these effects are unlikely to influence decision making, irrespective of other effects.</p>

- 1.35 For the purposes of this environmental assessment, moderate and major effects are considered to be significant, unless otherwise stated in the technical assessment methodology.
- 1.36 Each discipline has further refined the above typical criteria for assessing significance based on relevant standards / guidelines for the particular discipline. An explanation of the specific criteria used for the assessment of individual discipline are set out in the technical assessment methodologies (where appropriate).

Residual Effects

- 1.37 Residual effects are the effects of the proposed scheme on the environment which remain having taken account of committed mitigation measures.

Cumulative Effects

- 1.38 There are a number of types of cumulative effects including synergistic, combined, interrelated effects etc. For the purpose of this environmental assessment, they have been defined under the two categories identified in the IEMA 2011 Special Report on 'The State of Environmental Impact Assessment in the UK' (IEMA, 2011). These are inter-project effects and intra-project effects. These two types of cumulative effects are explained below.

- **Inter-Project Effects:** The combined effects of the proposed scheme with other relevant schemes which may, on an individual basis be insignificant but, together (i.e. cumulatively), have a significant effect. An example would be surface water runoff likely to be generated by the construction of a proposed supermarket in the area, which would need to be added to the predicted surface water runoff figures for the proposed scheme, in order to understand the true potential effects as a result of the combined schemes.
- **Intra-Project Effects:** The combined effects arising as a result of the proposed scheme, for example upon a single receptor or resource. An example would be where a local resident is affected by dust, noise and a loss of visual amenity during the construction of a scheme, with the result being a greater nuisance than each individual effect alone.

Construction Environmental Management Plan

- 1.39 A Construction Environmental Management Plan (CEMP) would be prepared to support the application at the EIA stage. This would present the general approach and application of environmental management and mitigation for the construction of the scheme. The CEMP aims to ensure that adverse effects from the construction phase on the environment and local communities are minimised.

Assessment of Alternatives

- 1.40 Schedule 4 of the EIA Regulations requires that the ES includes an outline of the main alternatives considered and provides an indication of the main reasons for the applicant's choice, taking into account the environmental effects.

In accordance with the EIA Regulations the following will be considered and described in the ES:

- Alternative sites – a summary of alternative routeing options and alternative SEC locations considered for the proposed scheme.

- 1.41 It is not considered necessary to assess the "do-nothing" option so it is proposed to scope this out of the ES. The purpose of the VIP project is to counter the existing negative effects of existing infrastructure on the visual amenity and landscapes of the National Park.

Mitigation

- 1.42 Mitigation measures that would be considered in the ES typically fall into one of three categories as follows:

- Primary or 'embedded' mitigation measures developed through the iterative design process and have become integrated mainstream components of the design of the proposed scheme;
- Standard construction practices for avoiding and minimising environmental effects. For example, National Grid would compile a Code of Construction

Practice (CoCP) and/or a Construction and Environmental Management Plan (CEMP) during the EIA process as part of its application; and

- Secondary mitigation measures which are designed to address any significant adverse effects remaining after primary measures and standard construction practices have been applied to the proposed scheme.

Compliance with Legislation, Standards and Guidance

- 1.43 There is a broad range of legislation covering the different aspects of environmental protection. These are supported by additional statutory guidance; 'standards', such as British Standards (BS) or International Standards (ISO); and other 'best practice' guidance, including industry codes of practice. These will be adhered to during the construction of the proposed scheme and will be kept under review and updated as required as a result of new or amended legislation, and standards and guidance by National Grid and their contractors.

Proposed Structure of the ES

- 1.44 The ES would comprise the following set of documents:

- ES Non Technical Summary (NTS) – comprising a summary of the principal issues and findings of the EIA
- ES Volume 1: Main Text – comprising the full text of the EIA with the proposed chapter headings as follows:
 - Introduction: including general background information, the legislative requirements of EIA, description of the site and surroundings;
 - Approach to EIA: detailing the methodologies employed as part of the EIA and any issues agreed to be scoped out;
 - The Proposed Scheme;
 - Alternatives;
 - Planning Policy;
 - Consultation;
 - Technical Chapters (as listed in the Scoping Report)
- ES Volume 2: Figures – comprising the figures in A3 format
- ES Volume 3: Technical Appendices – providing supplementary details of the environmental studies conducted during the EIA.

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2 Scheme Description

Construction, Operation and Decommissioning

- 2.1 The search area for the permanent development (the search area) is shown in **Figure 1.2**. This search area represents the current boundaries for any permanent development relating to the proposed scheme, i.e. National Grid will, in consultation with stakeholders, identify options for an underground cable alignment and sealing end compounds (SECs) within this boundary. The SEC search area is also shown. Environmental baseline data will extend outside this search area, where necessary.
- 2.2 The search area does not include the spatial extent of any temporary works (e.g. temporary laydown areas and access roads, temporary OHL diversions which may be required during construction) as, at this stage, it is not possible to identify the extent of these. However, these would be located as close as possible to the main works wherever possible.
- 2.3 The following paragraphs give further details of the scheme components and an overview of construction, operation and decommissioning methods. For the purposes of the assessment process construction and decommissioning include the following elements.
- Construction: the proposed scheme, i.e. new underground cable; jointing kiosks (small cabinets staggered along the cable route approximately two every 400m); new cable jointing building; new SEC and associated terminal pylon; removal of existing VIP subsection (pylons, conductors) and existing SEC at Dunford Bridge;
 - Decommissioning: Removal of the proposed scheme, i.e. underground cable (potentially) – see **para 2.18**; SEC and associated terminal pylon; cable jointing building; and jointing kiosks

Construction

Cable

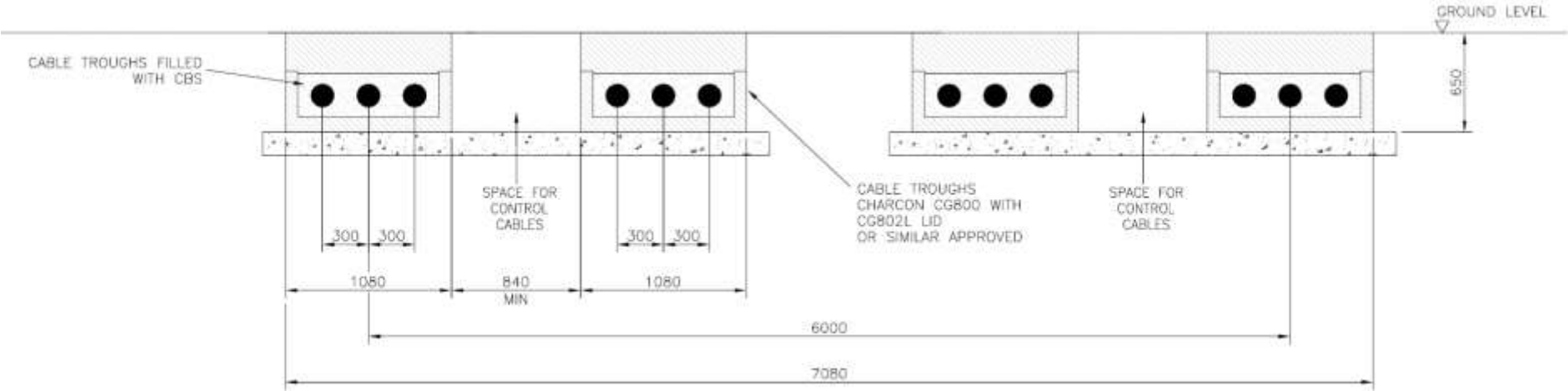
- 2.4 An underground cable alignment will be identified within the search area as shown in **Figure 1.2**.
- 2.5 There are various underground technologies that can be used depending on the constraints and / or sensitivities of the environment. Further to recent stakeholder engagement on options it is proposed that the cable would run along the Trans Pennine Trail from the Woodhead tunnel entrance, either using a non-standard direct buried solution or within cable troughs (or a combination) to a new SEC at Wogden Foot Local Wildlife Site (LWS). During construction this entire section of the Trans Pennine Trail would require a temporary diversion for construction/safety purposes. These underground technologies are briefly described below and are subject to detailed design:
- **Cable troughs** are generally used where the width of the cable corridor is restricted, or within the boundary of a substation, or where vegetative reinstatement is not required. The troughs would consist of reinforced concrete, and can either be surface laid (level with the existing ground level), or buried so the trough top is approximately 0.3m below the existing ground level. The utilisation of this cable installation reduces the total width of the working/construction area and permanent easement/wayleave. The cable trough construction swathe would be much less than that of standard direct burial.

Figure 2.1 shows a typical cross section for a cable trough construction technique.

- Due to the width restrictions along the Trans Pennine Trail, an **alternative method of direct burial** installation is being developed to work within the space constraints. **Figure 2.2** shows cross sections of indicative cable arrangements for both very narrow, and slightly wider sections of potential cable route along the Trans Pennine Trail.

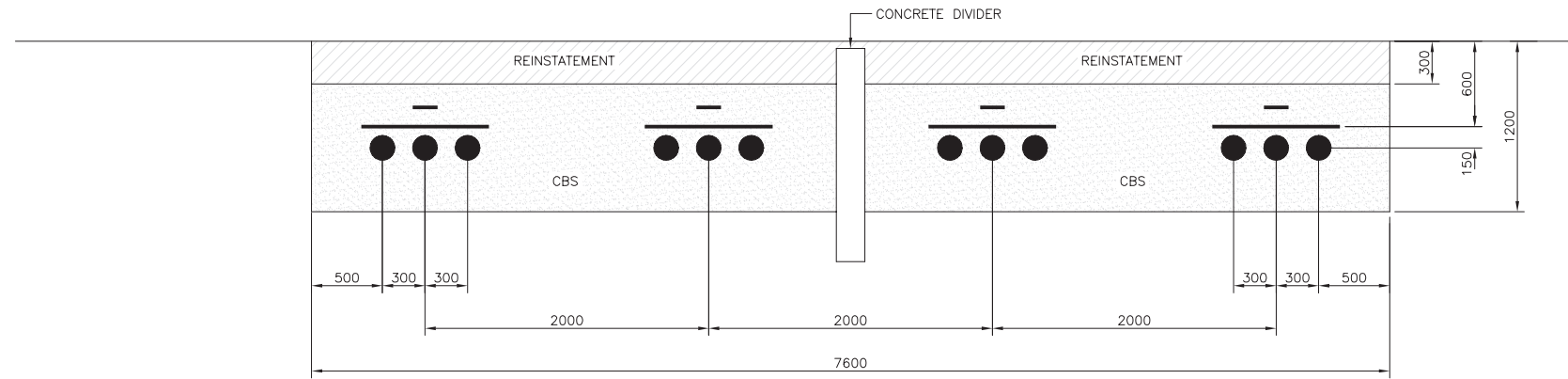
- 2.6 Construction haul roads would also be required. These would be fenced and gated crossing points would be installed to allow movement of animals from one side to another where required. Details of this would be investigated as part of the EIA process.
- 2.7 Following completion of the cable installation, the ground would be returned to its previous use. Hedgerows and other field boundaries would be reinstated. Trees felled would not be replanted over the buried cable but would be replaced locally elsewhere at a ratio of at least 4:1 in accordance with National Grid policy.

Figure 2.1 Example Cable Trough Installation Drawing

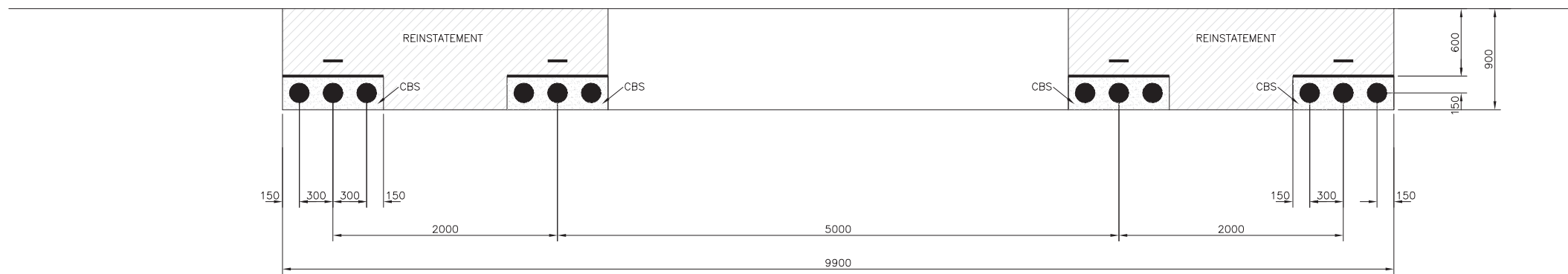


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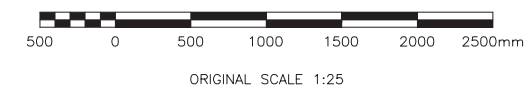
Figure 2-2 Example Direct Burial Installation Drawing



SECTION X-X
CABLE ARRANGEMENT FOR NARROW SECTIONS
OF CABLE ROUTE ALONG TRANS PENNINE TRAIL



SECTION Y-Y
CABLE ARRANGEMENT FOR WIDER SECTIONS
OF CABLE ROUTE ALONG TRANS PENNINE TRAIL



P1	FIRST ISSUE	DGC	CPR	IE	23/06/16
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SECTIONS SHOWING CABLE ARRANGEMENT ALONG TRANS PENNINE TRAIL

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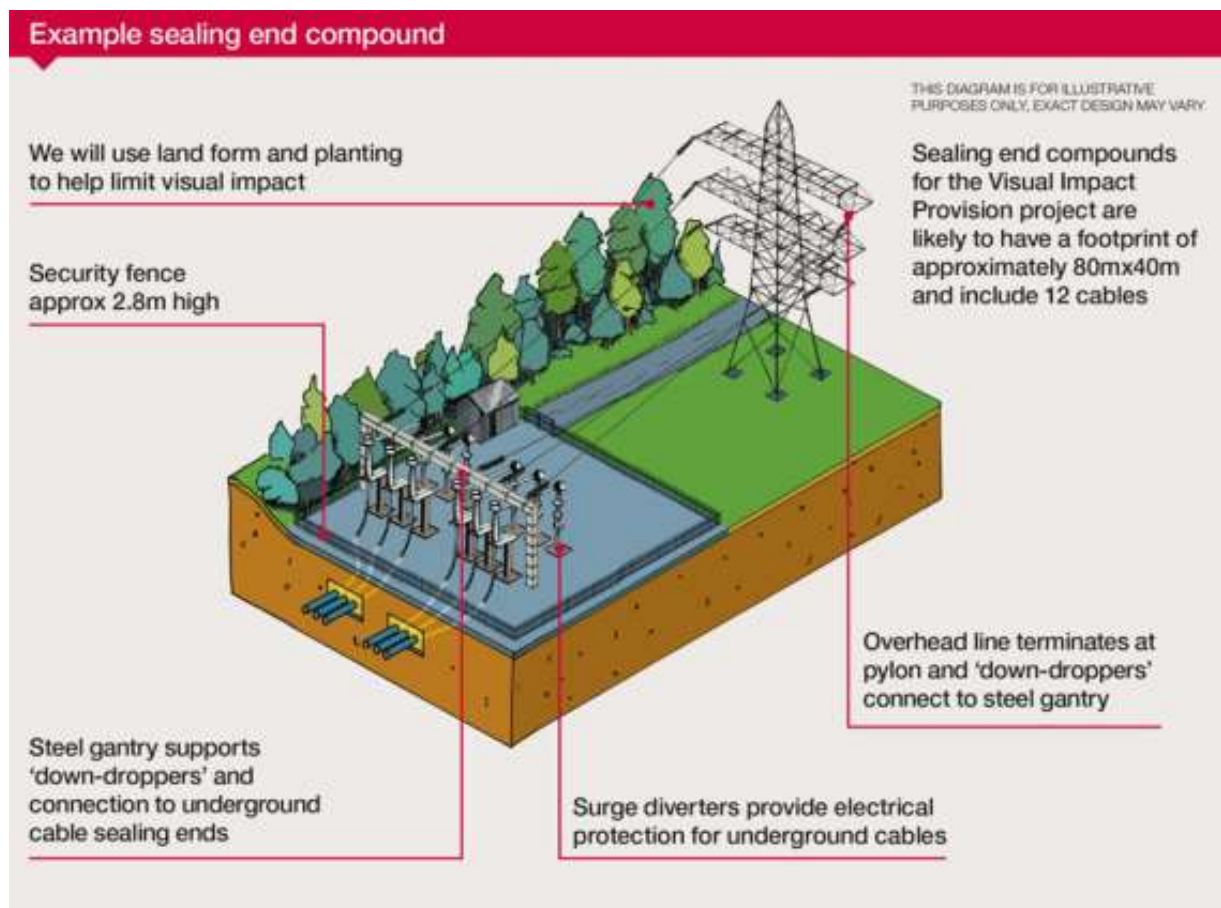
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Sealing End Compound

- 2.8 The rationale for the SEC search area is that, ideally, it would be located as close to the existing OHL as possible, thus eliminating the requirement for or minimising the extent of any new OHL required to connect the SEC with the remaining 4ZO OHL. The original search area identified is south of Townhead as shown in **Figure 1.2**. It comprises land on the lower slopes of the Upper Don Valley north of the river, and land south of the river, part of which falls within Wogden Foot LWS.
- 2.9 A SEC would be located at the eastern end of the new underground cable, to achieve the transition from the underground cable to the existing OHL. A terminal pylon would form the end of the 400kV OHL, with a typical fenced compound approximately 80m by 40m. A diagram of a typical SEC is shown in **Figure 2.2**. The SEC would require permanent road access. Where access roads already exist, these may need to be upgraded. It is important to note that although the designs for SECs do vary, and normally each compound is slightly different, the SEC is likely to be similar to the example shown, and the pylon may or may not be contained within the compound.

Figure 2.2 Diagram of a typical sealing end compound



Cable Jointing Building

- 2.10 A cable jointing building is required outside the entrance to the Woodhead tunnel within National Grid's existing operational compound. The approximate dimensions of the building are anticipated to be 13m x 20m with a height of 6m above ground level. Cable jointing will be within gas insulated infrastructure which has no moving parts and there is no potential for operational noise from this equipment

Removal of Existing Infrastructure (VIP subsection)

- 2.11 Removal of the existing pylon infrastructure (the VIP subsection and SEC at Dunford Bridge) would take place following installation and commission of the new cables and would involve many of the activities associated with the build phase, for example provision of access points and haul roads and associated traffic movements for the removal of equipment. Upon removal, much of the material would be taken for reuse or recycling.
- 2.12 Pylon fittings, such as dampers and spacers, would be removed from the conductors. The conductors would be cut into manageable lengths or would be winched onto drums. Each pylon may be dismantled by crane, with sections cut and lowered to the ground for further dismantling and removal from site. If space is particularly restricted, the pylon can act as the scaffold and be dismantled from the inside. Conversely, in large areas it may be possible to cut the pylon at the base and then pull the pylon to the ground using a tractor and then cut into sections.
- 2.13 Discussions with landowners and stakeholders regarding removal of pylon foundations would be undertaken and take account of land owner wishes (for example, removal of foundations to a typical depth of 1.2m to allow for ploughing) and environmental issues. Where applicable, for assessment purposes it is assumed that pylon foundations would be removed.
- 2.14 Unless there is a compelling need for the complete removal of the SEC foundations, these would be removed to approximately 1m deep and subsoil and topsoil reinstated. If the foundations were to be completely removed, similar methods and access would be required as outlined for installation.

Temporary/Associated Works

- 2.15 Temporary works required for the proposed scheme would include: equipment laydown areas; site offices; the erection of temporary structures (pylons / masts and scaffolding for crossings) whilst cable sealing end and/or overhead line works are undertaken.
- 2.16 It may be necessary to re-conductor (replace the lines of) some spans of the existing 4ZO OHL back to the nearest tension pylon to the east.

Operation

- 2.17 Maintenance of the proposed scheme will be required during its operational lifetime. Typical maintenance procedures are summarised in **Table 2.1**.

Table 2.1: Typical Maintenance Works during Operational Lifetime

Scheme Element	Typical Maintenance works	Frequency
Underground cable/ SEC	<p>Underground cables have above ground kiosks or link boxes (where the cable sections join) that allow monitoring of HV underground cable systems. Monitoring is carried out via fibre optic cables installed with the underground cables.</p> <p>Monthly visual checks would be required of the underground cables, above ground kiosks and checks on the electrical equipment within the SEC.</p> <p>Work would involve enhanced visual inspections by use of an access platform, and cable testing at above ground link boxes (requiring mains volts or a portable generator to power the test set). This would require 2-3 persons / small vans over a two week period.</p>	<p>Monthly</p> <p>Every four years</p>
Terminal Pylon	<p>Infrequent visits for replacement of pylon fittings/ anti climbing devices (ACDs), pylon steelwork / bracing.</p> <p>Painting pylon steelwork.</p> <p>Vans would be used to carry workers in and out of site and trucks would be used to bring new materials and equipment to site and remove old equipment (using permanent SEC access road).</p>	<p>As required</p> <p>Every 10-15 years</p>
Cable Jointing Building	<p>Work would involve enhanced visual inspections and undertaking gas pressure gauges readings twice a year</p>	<p>Every 6 months</p>

Decommissioning

- 2.18 Underground cables have a life expectancy of approximately 40-50 years. After this time the cables would require replacing, assuming the connection is still required. If the old cables need to be removed then a similar method would be followed as during installation. Although likely, at this stage, it is not possible to state whether a replacement cable would take the same alignment, as this would depend on many factors at that time, for example, the sensitivities of the habitat, landownership and engineering technologies.
- 2.19 If the connection is no longer required, underground cables would be decommissioned; however, unless there is a compelling need for removal of underground cables, they would remain buried in the ground. In the unlikely event that the underground cables were to be removed, similar methods and access would be required as outlined for installation.
- 2.20 The lifespan of a SEC is approximately 40-50 years. When the SECs useful life has expired the materials would be removed and taken for recycling. Unless there is a compelling need for removal of the foundations, these would be removed to approximately 1m deep and subsoil and topsoil reinstated. If the foundations were to be removed, similar methods and access would be required as outlined for installation.

Programme

- 2.21 The current indicative programme is that, assuming planning consent, on site works would commence in late 2017 / early 2018 and take approximately two years to complete.

3 Planning Policy

Introduction

- 3.1 The application(s) for planning permission for the proposed scheme will be determined in accordance with the development plan, unless material considerations indicate otherwise, as required by Section 38(6) of the Planning and Compulsory Purchase Act 2004. In order to discuss the proposed scheme in this context, the ES will summarise the relevant national and Development Plan policy context within a planning policy chapter as follows:
- National Planning Policy Framework;
 - Planning Practice Guidance;
 - National Policy Statements;
 - Local Development Plan Policy;
 - Emerging Development Plan Policy;
 - Other Local Planning Policy; and
 - Other Local Policy.
- 3.2 The planning policy context chapter of the ES will include a general overview of the national and local planning policy framework of direct relevance to the proposed scheme.
- 3.3 Policies, relevant guidance and legislation relating to technical aspects of the environmental assessment will also be listed specifically within each technical chapter of the ES, where necessary. Each technical chapter will provide a description of these, to include setting out how the scope of the assessment has had regard to relevant planning policy in identifying relevant sensitive receptors and requirements for mitigation, as well as requirements for the assessment methodology. In addition, it may be appropriate for a technical chapter to note in its results factual information which can be used to support assessment of compliance with planning policy (e.g. recording a net loss of biodiversity); although it is not for the ES to draw conclusions on compliance with planning policy.
- 3.4 The planning policy context chapter of the ES will also provide a summary of how each technical chapter has considered planning policy, as set out above.

National Planning Policy

- 3.5 National planning policy in England comprises the National Planning Policy Framework. This document is supplemented by the National Planning Practice Guidance. Both resources should be taken into account in the preparation of development plans. They may be material to decisions on individual planning applications and will be taken into account by Ministers and Planning Inspectors in the determination of called-in planning applications and appeals.

National Planning Policy Framework

- 3.6 The National Planning Policy Framework (NPPF) (Department of Communities and Local Government (DCLG), 2012) sets out the Government's planning policies for England and how these are expected to be applied. It is a material consideration in the decision-

making process afforded considerable weight. The NPPF will be reviewed and appropriate policies identified which may have a bearing on the decision making process.

National Planning Practice Guidance

- 3.7 On 6 March 2014, the Department for Communities and Local Government (DCLG) published its Planning Practice Guidance (PPG), on-line guidance resource to use alongside the NPPF. The PPG consolidated and revised a large number of practice guidance documents. Since its initial publication, the PPG has been the subject of a number of updates, and will continue to be updated. The PPG provides detailed planning advice on different subjects relating to the interpretation of planning policy and legislation and will be referred to as required in the assessment.

Local Planning Policy

- 3.8 The search area for permanent development (the search area) lies within the administrative boundaries of both Barnsley Metropolitan Borough Council and the Peak District National Park Authority. The full planning application(s) will be determined by the relevant local planning authority within which the proposed scheme falls. In determining the full planning application(s), the local planning authorities will take into account the development plans for both Barnsley Metropolitan Borough Council and the Peak District National Park Authority.
- 3.9 The relevant development plan documents for both authorities are identified below, which includes adopted and emerging planning policy.

Barnsley Metropolitan Borough Council

- Barnsley Local Development Framework Core Strategy (Barnsley Metropolitan Borough Council, 2011);
 - Barnsley Unitary Development Plan (saved policies) (Barnsley Metropolitan Borough Council, 2000);
 - Barnsley Trees and Hedgerows Supplementary Planning Document (Barnsley Metropolitan Borough Council, 2012);
 - Barnsley Walls and Fences Supplementary Planning Guidance (Barnsley Metropolitan Borough Council, 2003).
- 3.10 In terms of emerging planning policy for Barnsley Metropolitan Borough, the Council is currently developing a Local Plan for Barnsley which will replace the Core Strategy and the Unitary Development Plan. This is in draft form after undergoing public consultation in late 2015 (Barnsley Metropolitan Borough, 2015). The Plan is due to be submitted for examination in Autumn 2016.

Peak District National Park Authority

- Peak District Local Development Framework Core Strategy Development Plan Document (Peak District National Park Authority, 2011).

4 Consultation

Introduction

- 4.1 This chapter outlines the stakeholder engagement activity undertaken on the Visual Impact Provision (VIP) project to date and sets out the intended consultation strategy during the EIA process with statutory and non-statutory consultees for the Peak District proposed scheme.
- 4.2 National Grid's VIP project has been stakeholder-driven from the outset. Both National Grid and Ofgem have always maintained that for the project to succeed, it is vital that stakeholders play an ongoing central role in helping to identify those areas and existing overhead lines (OHLs) which would benefit most (see also Chapter 1).
- 4.3 The Stakeholder Advisory Group is an independent group of stakeholder organisations, chaired by environmentalist, Chris Baines and comprising senior representation from 15 English and Welsh stakeholder bodies namely: Cadw, the Campaign for National Parks, CPRE, CPRW, Historic England, the Landscape Institute, the National Association for AONBs, National Parks England, National Parks Wales, the National Trust, Natural England, Natural Resources Wales, The Ramblers, Visit England and Visit Wales.
- 4.4 The members advise the project on key decisions and on the most effective ways to engage with local stakeholders outside the main Advisory Group. In the same way at a local level, an independent Stakeholder Reference Group (SRG) has been established in each priority area, including the Peak District. The input of local people from local enthusiasts to residents and technical experts has been sought throughout the project.

Initial Engagement on the VIP Project

- 4.5 Following the first meeting of the VIP project's Stakeholder Advisory Group, it was agreed that National Grid's VIP team would visit main contacts at all 30 of the AONB Partnerships and National Park Authorities which were eligible for VIP.

Early Stakeholder Engagement – Post Short-listing for Potential Schemes

- 4.6 Having identified a shortlist of 12 subsections of OHL in eight designated areas using the landscape assessment methodology, the Stakeholder Advisory Group asked National Grid to carry out early stage engagement with stakeholders and the public at a local level.
- 4.7 In the Peak District, the aim of this early engagement was to gather information and intelligence on the area to inform the options assessment and to gauge local attitudes and opinions to the work. It was also felt that involving local groups and individuals at the outset would not only help to identify any potential problems and challenges, but also to give the local community a sense of ownership. It should be a requirement of any scheme taken forward to major engineering work that it has the support and involvement of local people.

- 4.8 National Grid's intention was to work closely with the Peak District National Park Authority (PDNPA) and key stakeholders to present a collaborative, inclusive partnership approach to the local community.
- 4.9 An initial scoping meeting for this early engagement work was held between National Grid and the PDNPA and an overall approach to engagement discussed. As a result, an early engagement programme was developed that involved:
- An independently facilitated workshop in March 2015 to discuss the approach to stakeholder approach.
 - A technical workshop in April 2015 for key representatives from the PDNPA and other key statutory bodies identified by the PDNPA . These included representatives from Barnsley Metropolitan Borough Council (BMBC), Dunford Parish Council, Natural England and the Trans Pennine Trail. This group formed a Stakeholder Reference Group (SRG) for the project.
 - A public drop-in event was held in The Parish Community Centre in Holmfirth April 2015 and attended by 19 people.
 - Engagement with local MPs, Angela Smith MP, as well as those MPs with constituencies elsewhere in the Peak District National Park, along with the ward councillors and cabinet members of BMBC.
 - Technical feedback from the Peak District SRG, along with the opinions of local people and other non-technical groups who attended the drop-in session was then fed into the Options Appraisal Report (2015) prepared for Peak District.
 - A third meeting of the SRG (technical stakeholders) took place in August 2015. Following the incorporation of further stakeholder feedback, the Options Appraisal report for the Peak District was then presented to the Stakeholder Advisory Group in September 2015 and formed one of the main documents that informed the Group's decisions on which should be the priority schemes.

Ongoing Stakeholder Engagement

- 4.10 Following the September 2015 Stakeholder Advisory Group meeting, the section of 4ZO OHL near Dunford Bridge was selected as one of the four priority schemes for further investigation.
- 4.11 National Grid directly informed the PDNPA and its communications team and spread the word widely through media releases, social media and other PDNPA communications. Direct communication was also made with members of the SRG and those who had registered for updates via the VIP project website: www.nationalgrid.com/VIP.
- 4.12 MPs and elected members from county, district and parish councils were also written to and meetings offered on an individual basis. Since the announcement in October 2015, the VIP team, its appointed environmental consultants and consents team have been liaising with the PDNPA, BMBC, key members of the SRG and other relevant technical organisations to explore potential options further.
- 4.13 A communications and engagement plan has been developed by National Grid to cover the period until autumn 2016.
- 4.14 It is an ongoing engagement plan aimed at keeping stakeholders informed of the scheme's progress, activities planned during this period (e.g. surveys) and, ultimately further details on engineering options as the scheme progresses.

- 4.15 The communications plan contains the following elements:
- 4.16 **SRG meetings** – one undertaken in March 2016, one undertaken in June 2016 (ahead of the public drop-ins) and one scheduled for August 2016 (after the drop-ins and before the eighth meeting of the VIP Stakeholder Advisory Group).
- 4.17 **Direct engagement** – a comprehensive stakeholder database has been produced for the Peak District proposed scheme. Individuals and organisations are segmented into groups. As well as the SRG, individuals and groups will be engaged via a mix of one-to-one meetings (where appropriate), presentations to small groups, letters, email updates and phone conversations. National Grid will also respond to all incoming requests from stakeholders.
- 4.18 **Third party channels** – National Grid will work with the communications teams of those stakeholders where we have an existing relationship to disseminate information through their established membership, social media and other channels. National Grid would also look to add to this network in the coming months.
- 4.19 **Media relations** – there would be regular updates to the local media on proposed scheme milestones and to publicise the summer drop-in events.
- 4.20 **Drop-in events** – these would be held in the summer but avoiding school holidays. They would be held at a convenient local venue (or venues), and to include one evening and potentially a weekend. The events would be attended by members of the VIP team together with relevant professional advisers who can speak on the more technical aspects of the proposed scheme. Printed and online feedback forms would be available at the events and visitors would be able to feedback via the website or freepost at a later date.
- 4.21 **Peak District VIP website** – a dedicated website would be established with a focus on information specific to the proposed scheme, information on drop-in (and other) events and the chance to feedback comments and views.
- 4.22 **Other local events** - where appropriate, the VIP project would have a presence (either directly or through partners) at relevant local events in the Peak District.

Emerging Issues

- 4.23 A wide range of issues relating to the proposed scheme have emerged during engagement activity. These have either been addressed or form part of ongoing work by National Grid and the VIP team working in partnership with the stakeholders involved. Some of these issues are contained in the published Options Appraisal report for the Peak District.

Wider Engagement

- 4.24 National Grid will undertake public engagement to inform the EIA. It will include reference to the early stage engagement work undertaken to date and ongoing during 2016.
- 4.25 Engagement to support the EIA would therefore be scheduled in line with the full programme likely to take place in late 2016/early 2017. Plans for engineering options/design, construction activities and likely restoration proposals and timeframes can be shared with the public in an advanced form, but allowing time for changes to be made prior to the submission of the planning application.
- 4.26 Consultation bodies will be drawn from the stakeholder database and are likely to include:

- Local Authority stakeholders / partners – the Peak District National Park Authority, Barnsley Metropolitan Borough Council and Trans Pennine Trail officers;
- Stakeholder Reference Group
- Other statutory consultees – e.g. Natural England, Environment Agency, Historic England, etc.
- Local groups represented nationally on VIP’s Stakeholder Advisory Group (e.g. CPRE, Ramblers)
- Other interest groups locally (e.g. RSPB, Wildlife Trust, local access forums, British Horse Society, National Cycling Charity - CTC, Community Volunteers etc.)
- Parish councils / representatives
- Politicians – ward members, lead members, MPs, etc
- Schools and education establishments
- Communities
 - Immediate neighbours in properties / villages close to the proposed scheme
 - Wider communities across the National Park and other neighbours

4.27 A chapter detailing engagement activity will be included as part of the Environmental Statement (ES). This will identify feedback from stakeholders and demonstrate the steps National Grid has taken to incorporate stakeholder input into its proposals. Appendices containing all feedback forms, examples of the exhibition materials and publicity materials used and resulting media coverage will be included with ES.

5 Landscape and Visual

Introduction

- 5.1 Landscape and visual impact assessment (LVIA) is a tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on peoples' views and visual amenity.
- 5.2 In accordance with The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (The 'EIA Regulations') (H.M. Government, 2011), the LVIA will identify and appraise the potential effects on the landscape, views and visual amenity resulting from undergrounding a section of existing 400kV overhead line (OHL) and associated works (the proposed scheme) as described in **Chapter 2** of this Scoping Report.
- 5.3 The LVIA will consider the likely effects during construction, operation and decommissioning. This will include the temporary effects relating to construction and longer term effects during which the beneficial effects of removing the existing section of 400kV OHL (the VIP subsection) become apparent and any proposed planting becomes established.
- 5.4 Building on previous work on National Grid's Visual Impact Provision (VIP) Project, which is presented in the Landscape and Visual Impact Assessment Technical Report (National Grid, 2014) and Options Appraisal Study (OAS) (National Grid, 2015), the LVIA will update the VIP LVIA and OAS baseline information for the VIP subsection, adding further new or updated information as required.
- 5.5 The assessment will be undertaken in accordance with the third Edition of Guidelines for Landscape and Visual Impact produced by the Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA) (GLVIA3) (LI and IEMA, 2013).

Scope and Definitions

- 5.6 For the purposes of the LVIA:
 - Landscape effects means impacts or effects on *'the landscape as a resource in its own right'* (GLVIA3, page 21, paragraph 2.21). It includes direct effects upon the fabric of the landscape (such as the addition, removal or alteration of structures, woodlands, trees or hedgerows), which may alter the character and perceived quality of the area, or more general effects on landscape character and designated areas of landscape arising from the introduction of new man-made features. In landscapes designated or valued for their scenic or landscape quality such as the Peak District National Park, such changes can affect the purpose of the designation or perceived value of the landscape.
 - Visual effects means impacts or effects on *'specific views and on the general visual amenity experienced by people'* (GLVIA3, page 21, paragraph 2.21). These relate to specific changes in the composition of views and the effects of those changes on visual receptors and wider visual amenity¹. In accordance with GLVIA3, the assessment will focus on public views experienced by those groups

¹ Meaning the overall pleasantness of the views people enjoy of their surroundings

of people who are likely to be most sensitive to the effects of the proposed scheme. This includes local communities where views contribute to the landscape setting enjoyed by residents in the area, road users and people using recreational routes, features and attractions.

- Cumulative effects are the effects of the proposed scheme adding to the effects of other similar proposed developments. There are two main types of cumulative effect. Intra-project cumulative effects are those effects which arise from different environmental factors affecting a single receptor (for example tree removal may affect both ecological and visual receptors). Inter-project cumulative effects arise from the additional effects caused by the proposed scheme interacting with the effects of other similar developments in the locality.

5.7 The terms impacts and effects are considered to be interchangeable for the purposes of this assessment but in general the term effects will be used as this is the approach taken in GLVIA3.

Consultation

5.8 As set out in **Chapter 4** of this Scoping Report, consultation with the Peak District National Park Authority (PDNPA) and local stakeholder and community groups was undertaken as part of the VIP LVIA and OAS. This information will inform preparation of this assessment.

5.9 Further consultation undertaken to date includes a formal EIA Screening Opinion received from PDNPA, which has helped inform this scoping chapter. Relevant landscape and visual details include recognition of the following:

- *'The removal of the SEC and 2 pylons within the National Park would enhance the Park landscape and remove the significant over-bearing impact it has upon the hamlet of Dunford. The removal of pylons outside the National Park boundary would enhance the setting of the National Park although a new SEC would represent a greater visual impact than a standard pylon. In this regard the proposals would bring a net visual and landscape benefit to both the small number of local residents in the locality as well as the much larger number of tourism and recreational visitors to the area. It is considered that the above issues can be adequately assessed in a full Landscape/Visual Impact assessment and mitigation strategy, a construction method statement with considerate construction practices and a trail diversion/management plan.'*

Legislation and Policy

5.10 A desk-based review of relevant legislation and planning policy relating to electricity transmission and the landscape will be undertaken. This will include a review of:

National Planning Advice and Policies

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

Local Planning Policy and Guidance

- Barnsley Local Development Framework Core Strategy (Barnsley Metropolitan Borough Council, 2011);
- Barnsley Unitary Development Plan (Barnsley Metropolitan Borough Council, 2000);
- Barnsley Local Plan Consultation Draft (Barnsley Metropolitan Borough Council, 2014);

- Local Development Framework Core Strategy Development Plan Document (PDNPA, 2011);
- Peak District National Park Management Plan (PDNPA, 2012);
- Peak District National Park Landscape Strategy and Action Plan 2009 – 2019 (PDNPA, 2009); and
- Landscape Strategy and Action Plan 2001 – 2019 (PDNPA, 2009).

5.11 In addition, the following guidance will be referenced:

- Hinton, C. and Holford, W. (1959). The Holford Rules – Guideline for the Routeing of New High Voltage Overhead Transmission Lines;
- National Grid Company plc (2003). The Horlock Rules – Guidelines on the Siting and Design of National Grid Substations;
- Landscape Institute (2011). Photography and Photomontage in Landscape and Visual Impact Assessment: Advice Note 01/11;
- National Grid (2012). Our Approach to the Design and Routeing of New Electricity Transmission Lines;
- Natural England (2014). An Approach to Landscape Character Assessment;
- Scottish Natural Heritage (2014). Visual Representation of Windfarms Good Practice Guidance Version 2.1, 2014; and
- Scottish Natural Heritage (2013). Constructed Tracks in the Scottish Uplands.

Baseline Environment

5.12 This section will establish the baseline landscape and visual conditions which the proposed scheme will be assessed against, and will form the basis for the identification and description of the changes that may result from the proposed scheme. This will include the existing 4ZO OHL, which will be included in the baseline for the purposes of this assessment. The extent of the 'LVIA study area' is defined as a distance of 5km as explained later in this chapter.

Landscape Baseline

5.13 The landscape baseline will review all the available information to establish an understanding of the landscapes of the LVIA study area, their constituent elements and features, character, condition, how it is experienced and any values attached to it. Sources of information will include those listed under the Legislation and Policy section above and also:

- Aerial photography; and
- National Grid VIP Landscape and Visual Impact Assessment Technical Report (2014) and Visual Impact Provision: Peak District National Park Options Appraisal Study (National Grid plc, 2015).

Visual Baseline

5.14 The area within which the proposed scheme may be seen will be established using digitally created Zones of Theoretical Visibility (ZTVs), by analysing maps and aerial photography and by site visits. Site visits are particularly useful in identifying and confirming groups of likely visual receptors who may experience changes to views or their visual amenity.

5.15 Sources of information will include:

- Nationally designated and regionally promoted walking routes, cycleways and bridleways, as well as Public Rights of Way (PRoW), Common Land and Open Access Land (OAL);
- Tourist attractions, recreational sites and settlements identified from 1:25,000 Ordnance Survey (OS) maps or tourist literature;
- National Grid's VIP Technical Report and Visual Impact Provision: Peak District National Park Eastern Section Options Appraisal Study (National Grid plc, 2015); and
- Advice provided by stakeholders on locally used recreational routes and visitor locations.

Overview of Landscape Character

5.16 The section of 4ZO OHL to be placed underground (the VIP subsection) extends from the existing Sealing End Compound (SEC) near to the eastern end of the Woodhead Tunnel at Dunford Bridge, eastwards along the Upper River Don before it crosses the National Park boundary.

5.17 The landscape immediately to the east of the Woodhead Tunnel is transitional in character between the high open moorland and the lower more wooded valley slopes. Strong topographical variety around Dunford Bridge, together with nearby areas of high conservation interest, recreational value and relative tranquillity, all serve to increase the value of the landscape. Dunford Bridge serves as a local gateway for visitors to the Pennine Moors, with the Trans Pennine Trail, a car park, picnic area and National Cycle Route 62.

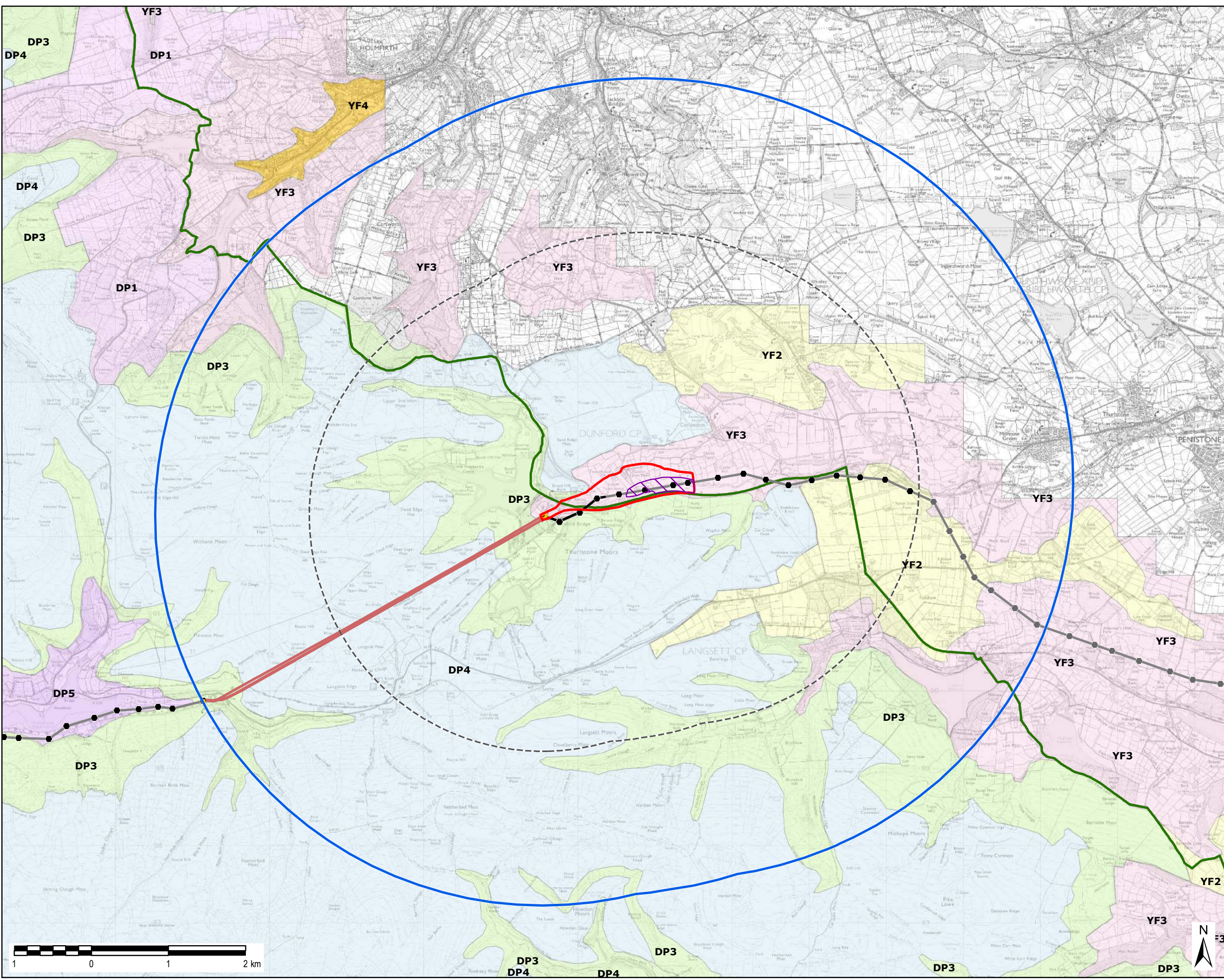
5.18 The existing 4ZO OHL passes through areas characterised in the Peak District National Park Landscape Strategy and Action Plan (PDNPA, 2009) as landscape character types (LCTs). Within the Park the 4ZO OHL runs along the boundary of Dark Peak Moorland Slopes & Cloughs LCT and Dark Peak Yorkshire Fringe Slopes & Valleys with Woodland LCT. Outside the Park the 4ZO OHL lies fully within the Dark Peak Yorkshire Fringe Slopes and Valleys with Woodland LCT. The existing 4ZO OHL, particularly to the west, has a very high scale of impact on these two LCTs, particularly the SEC, terminal pylon and subsequent three angle pylons, which are prominent on the skyline.

Description of the Existing Landscape in the Search Area for Permanent Development

5.19 The Search Area for Permanent Development (the 'search area') is the red line 'search area' submitted as part of the screening request.

5.20 The landscape of the area around the eastern end of the Woodhead Tunnel and the small hamlet of Dunford Bridge comprises a relatively small scale river valley with steeply sloping and undulating valley slopes punctuated by incised streams and flushes. To the north and south, steeper slopes and stream valleys rise up to the open moorland above. Landcover within the valley typically comprises small-scale pastures enclosed by dry stone walls. Other than some scattered trees, deciduous tree cover is mainly associated with the Upper Don Valley and a disused railway line (now part of the Trans Pennine Trail and National Cycle Route 62). Medium sized blocks of conifer plantation lie to the west near Winscar Reservoir. Apart from Dunford Bridge, the settlement pattern is typically one of dispersed farmsteads and properties. The enclosed and intimate nature of the valley imparts a sense of tranquillity, which is interrupted by the presence of pylons.

5.21 LCTs are shown on Figure 5.1.



THIS DRAWING IS TO BE USED ONLY FOR THE PURPOSE OF ISSUE THAT IT WAS ISSUED FOR AND IS SUBJECT TO AMENDMENT

- LVIA Study area
 - 3km from search
 - Sealing End Compound Search Area
 - Search Area for Permanent Development
 - Pylon
 - VIP subsection
 - National Grid Dunford Bridge
 - Underground cable
 - 4ZO OHL
 - Peak District NP
- Peak District**
- DP1 -Dark Peak Densely enclosed gritstone upland
 - DP3 -Dark Peak Moorland slopes & cloughs
 - DP4 -Dark Peak Open
 - DP5 -Dark Peak Reservoir valleys with woodland
 - YF2 -Dark Peak Yorkshire Fringe Enclosed gritstone upland
 - YF3 -Dark Peak Yorkshire Fringe Slopes & valleys with woodland
 - YF4 -Dark Peak Yorkshire Fringe Urban

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 Ordnance Survey 10024886.
 Source: Peak District NP, National Grid

3	06/07/16	Altered search area and sealing end boundaries	KC	RG	SG
2	24/03/16	Altered search area and sealing end boundaries	PL	RG	SG
Rev	Date	Detail	Made	Chk'd	App'd

Purpose of Issue
SCOPING REPORT

Client
NATIONAL GRID

Project Title
VISUAL IMPACT PROVISION

Drawing Title
LVIA - LANDSCAPE CHARACTER AREAS 4ZO

Drawn KC	Checked RG	Approved SG	Date 06/07/2016
Internal Project No. 60478116		Scale @ A3 1:45,000	



Drawing Number FIGURE 5.1	Rev 03
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File Name: R:\M5\06 NG Peak District East LVIA\Figures\GIS\Figure 5.1 - Landscape Character Areas_Peak_District_East.mxd

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Designated Landscapes

- 5.22 The southern part of the LVIA study area lies within the Peak District National Park, with the northern part lying within the metropolitan borough of Barnsley.
- 5.23 The Trans Pennine Trail and National Cycle Route 62 largely follow the route of the disused railway line and the Upper Don Valley Trail from west to east. The Trans Pennine Trail also forms part of European Long Distance Footpath E8.
- 5.24 National Cycle Route 68 (The Pennine Cycleway) runs from north to south skirting around Winscar Reservoir and following the same route as the Barnsley Boundary Walk.
- 5.25 There are very large tracts of Open Access Land up on the moorland.
- 5.26 Several Grade II listed buildings are situated along Brook Lane which lies to the north of the existing 4ZO OHL and runs from Dunford Bridge to Carlecotes and beyond.

Visual Amenity

- 5.27 This section identifies the visual amenity and availability of views as currently experienced by people (visual receptors). Visual receptors include local communities, occupiers of residential properties, visitors to the area, recreational users including users of the National Trails and local PRoW, motorists on the local road network and people working within the area.
- 5.28 General visibility within the valley is restricted to views both along (east-west) and across (north-south) the valley. Views are attractive where the character is more open and especially from the elevated vantage points. Views are often foreshortened by the undulating landform and visibility is further restricted by the trees and blocks of woodland within and around the valley.
- 5.29 People within the National Park who experience these views include the residents of Dunford Bridge as well as occupiers of the scattered farms and properties within the area. Views of pylons also affect the experience of visitors who park at Dunford Bridge and come to walk and enjoy the scenery or participate in watersports at Winscar Reservoir. People using the local lanes and the Trans Pennine Trail, National Cycle Routes, Kinder Loop long distance bridleway, Barnsley Boundary Walk and the Upper Don Valley Trail often have clear foreground views of pylons.
- 5.30 The special qualities of the National Park are defined in the Peak District National Park Management Plan (PDNPA, 2012). The search area is located within the gritstone or 'Dark Peak' area of the National Park, which provides an important contrast to the limestone plateaux of the 'White Peak' to the south.
- 5.31 The Management Plan notes that The Peak District's unique position at the heart of the country means that around 16 million people live within one hour's travel time of the national park, enabling millions to easily enjoy its exceptional natural beauty and outdoor recreation opportunities.

Potential Impacts

- 5.32 The assessment will consider the landscape and visual effects of constructing, operating and decommissioning the proposed scheme. The key information which will be used to inform the assessment includes the location of the VIP subsection to be removed, the location and height of replacement terminal pylon, the location of the SEC, the location and design of the cable jointing building, temporary construction and storage areas, access roads and any other infrastructure required to facilitate the development.

Beneficial Effects of Removing the VIP Subsection

- 5.33 Removal of the VIP subsection would result in significant long-term permanent beneficial landscape and visual effects as it is currently deemed to have landscape and visual effects of very high importance.
- 5.34 This benefit would be to both the character and special qualities of the National Park as well as on visual receptors within the area, including visitors to the National Park and users of the Trans Pennine Trail.
- 5.35 These significant beneficial effects have to be balanced against any adverse effects of the new above ground infrastructure, including the SEC and terminal pylon.

Effects of the Proposed Scheme

- 5.36 The components of the proposed scheme are:
- Removal of the existing SEC at Dunford Bridge, east of the Woodhead Tunnel;
 - Construction of a new SEC and replacement terminal pylon including permanent access (at the eastern end of the new underground cable) required to connect the new underground cables to the remaining existing overhead line (OHL);
 - Underground cabling of approximately 1.6km (depending on exact location of SEC and route of cable alignment).
 - Removal of the existing VIP subsection including approximately 7 pylons and 1.8km of OHL (depending on exact location of SEC).
 - A cable jointing building outside the entrance to the Woodhead tunnel within National Grid's existing operational compound; and
 - Jointing of the new underground cable to the existing cable within the Woodhead Tunnel.
- 5.37 The following list sets out the potential adverse effects of the proposed scheme. These effects will typically be temporary and very localised in comparison to the far reaching effects of the VIP subsection OHL. Most are unlikely to be significant and overall will be outweighed by the beneficial effects accruing from removing the VIP subsection.

Construction Effects

- 5.38 Construction of the proposed scheme would result in potentially short term temporary adverse effects which are likely to include the following:
- Direct loss or fragmentation of distinctive landscape elements during removal of the existing 7 no. pylons and construction of new infrastructure e.g. vegetation clearance to allow for temporary work areas and temporary access tracks;
 - Effects of the new infrastructure on the scale, quality and pattern of the existing landscape character and adjacent landscape character areas, including on the setting and special qualities of the Peak District National Park and other designated sites; and
 - Effects on views which will depend on the extent to which construction works (including all accesses, working areas, lighting and construction traffic using the wider road network) appear in views experienced by receptors such as residents, recreational users and others in the area including local workers.

Operation Effects

- 5.39 Operation of the proposed scheme would result in some long-term localised landscape and visual effects, which are likely to include the following:
- Very localised permanent vegetation loss around the new infrastructure;

- Effects of the new infrastructure on the scale, quality and pattern of the existing landscape character and adjacent landscape character areas, including on the setting and special qualities of the Peak District National Park and other designated sites; and
- Effects on views which will depend on the extent to which the different components of the proposed scheme (including any permanent vehicles accesses) would appear in views experienced by receptors such as residents, recreational users and others in the area including local workers.

Decommissioning

- 5.40 Decommissioning of the proposed scheme would result in very similar potential adverse effects on landscape character and views as those identified for the construction phase (excluding the effects of removing the existing section of OHL).

Duration and Reversibility

- 5.41 The duration of the likely effects is defined as follows:
- Short term – temporary during construction and decommissioning only (zero to three years);
 - Medium term – declining after the end of construction due to the effect of mitigation measures, and no longer felt after 15 years; and
 - Long term – effects still felt 15 years after construction, and no longer declining.
- 5.42 Reversibility is a judgement about whether the particular effect is reversible in the long term. In this case the operational effects of the proposed scheme would be long-term but potentially reversible since the scheme has a limited life and could eventually be removed and the land reinstated if no longer required. Reversibility is particularly relevant to construction effects as works will cease and land and most landscape features will be reinstated in the short term.
- 5.43 The short-term (and where relevant the long-term) landscape and visual effects arising during the construction of the proposed scheme between commencement on site and the opening year), and also during decommissioning will be considered.
- 5.44 The assessment year (or years) for the assessment of construction effects on landscape and visual receptors is dependent on a number of factors - for example, the character of the landscape receptor, the geographical location of the visual receptor and the specific component(s) of the proposed scheme, which are considered to give rise to a landscape or visual effect(s). Effects on landscape and visual receptors also have the potential to arise for a part of the construction phase or the entirety of the construction phase.
- 5.45 It is considered appropriate to assess the significance of potential effects when such effects would be at their peak, and views of the proposed scheme on completion prior to establishment of mitigation planting. This complies with the general approach to the assessment of a realistic worst case scenario.
- 5.46 The opening year will be used as the basis of assessment of operation effects on the landscape and on views and visual amenity. The opening year for the proposed scheme is anticipated to be 2020/21. Landscape and visual effects of the proposed scheme will be considered during operation at the opening year and include any guaranteed mitigation planting.
- 5.47 The long-term residual landscape and visual effects of the proposed scheme will be considered fifteen years after completion (to include the establishment of guaranteed mitigation planting).

- 5.48 For each receptor landscape and visual assessment tables will identify the sensitivity of the view, the nature of the change in the view (magnitude of effect) and the judgement of the overall significance of the visual effect.

Proposed Assessment Methodology

- 5.49 The methodology for undertaking the LVIA is based on principles set out by the Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA) in the third edition of Guidelines for Landscape and Visual Assessment (GLVIA3) (LI and IEMA, 2013). GLVIA3 is the established good practice guidance for landscape and visual impact assessment.
- 5.50 Photography and visualisations will be produced in accordance with GLVIA3 as well as guidance contained in the Landscape Institute Advice Note 01/11 (Photography and Photomontage in Landscape and Visual Impact Assessment) (Landscape Institute, 2011). Photomontage production will also have regard to guidance provided in Scottish Natural Heritage's (SNH's) 2014 document, 'Visual Representations of Windfarms: Good Practice Guidance Version 2.1' (SNH, 2014, which the LI Advice Note 01/11 strongly advises members to follow where applicable in preference to any other guidance or methodology.
- 5.51 Photomontage viewpoints will be identified which are representative of views in the area and the location of these viewpoints and the timing of photographic surveys will be discussed with statutory stakeholders.

Study Area for the Landscape and Visual Impact Assessment

- 5.52 The LVIA will focus on those areas which are likely to experience significant effects. This accords with the EIA Regulations, which require the identification of the 'likely significant effects of the scheme on the environment' (Schedule 4 Part 1). The LVIA study area will include the site of the proposed scheme and the wider landscape around it which the proposed scheme may influence in a significant manner.
- 5.53 Field assessment work has determined that there are circumstances when a steel lattice 400kV pylon approximately 50m high can be discerned at distances up to 10km. However, in most instances it is likely to be barely perceptible beyond 3km and therefore unlikely to give rise to significant effects. This is because at 3km distance, when viewed at arm's length, a 50m tall pylon will appear to be approximately 1cm high in the landscape).
- 5.54 Field assessment has also determined that where visible at distances between 1km and 3km, a 50 m high pylon can typically be seen in only a small proportion of views as it is often screened by trees, landform and vegetation. Where visible within 1km it is typically seen in a greater proportion of the view depending on filtering, screening or backgrounding which may reduce the extent visible.
- 5.55 Based on these observations, the suggested study area for the LVIA is defined as a 5km distance around the proposed scheme (the 'LVIA study area') as this is the area which could be affected to a significant degree by the terminal pylon required at the SEC. This is the tallest and therefore potentially the most widely visible component of the proposed scheme. Within the LVIA study area, the focus of the assessment will be receptors lying within 3km of the proposed scheme unless the survey team considers that there are likely to be important effects between 3km and 5km. The LVIA study area will continue to be monitored during preparation of the EIA. Should particular concerns be raised about any particularly sensitive receptors at (or beyond) 5km then these will be taken into account, although this is not anticipated due to the nature of the proposed scheme.
- 5.56 To support the assessment, Zone of Theoretical Visibility (ZTV) maps will be produced for the different components of the proposed scheme to a 10km distance. The reason

the ZTVs will be prepared over a 10km distance is to demonstrate that the LVIA study area is appropriate and to help identify any particularly sensitive receptors which may lie at or beyond 5km as noted above. This conservative approach is that typically adopted by National Grid when assessing the effects of new above ground infrastructure.

Viewpoints

- 5.57 Viewpoints will be chosen to represent the experience of one or more of the visual receptor groups. At each viewpoint the value of the view and the scale of the likely effect on the view will be assessed. The purpose of the exercise will be to select representative viewpoints, not to identify every location with a potential view of the proposed scheme. Specific promoted viewpoints, for example those identified on OS mapping will be included in the list of viewpoints assessed. These viewpoints will be discussed with the PDNPA Authority and Barnsley Metropolitan Borough Council to ensure that the most appropriate locations are considered.
- 5.58 The viewpoints will be recorded on maps with accompanying text explaining why it has been chosen, which groups of receptor it represents etc. Where possible viewpoints will be selected in places where they represent a number of different receptor groups (e.g. on the edge of a settlement where a footpath leaves the village; at a car park and picnic site on a promoted footpath, or at a trig point in an area of Open Access Land).

Assessing Effects

- 5.59 In accordance with GLVIA3, the EIA will identify and describe:
- *'Effects on the landscape as a resource (the landscape effects); and*
 - *Effects on view and visual amenity as experienced by people (the visual effects).'*
- 5.60 The LVIA will consider the likely significant effects including direct, consequential or indirect effects for both the temporary (construction) and long-term (operational) effects on landscape character and visual amenity.
- 5.61 The assessment will establish the sensitivity of the receptors (with sensitivity made up of judgements about the value attached to the receptor, the susceptibility of the receptor to the type of change proposed) and the magnitude of effects (made up of judgements about the size/ scale of predicted effect, the geographical extent of the area affected, the duration of the effect and its reversibility). Sensitivity and magnitude will be combined using professional judgement to determine the importance or significance of the overall effect.
- 5.62 The main objectives of the assessment are:
- To describe, classify and evaluate the existing landscape and visual resource likely to be affected by the different components of the proposed scheme within the LVIA study area during the construction and operational phases;
 - To identify visual receptors with views of the proposed scheme; and
 - To assess the significance of the effect on the landscape character and visual amenity, taking into account the measures proposed to mitigate any of the effects evaluated.

Determining Overall Significance of Landscape and Visual Effects

- 5.63 Landscape and visual effects can be either beneficial or adverse. Removal of the existing 400kV OHL will have a significant permanent beneficial effect, whilst the effects of removing the pylons and construction and operation of the proposed scheme are likely to result in some adverse effects albeit that they are more likely to be localised and less significant.
- 5.64 To determine the overall significance of each landscape or visual effect, the separate judgements about the sensitivity of the receptor and the magnitude of effect are

combined to allow a final judgement to be made about whether or not the effect is considered significant.

- 5.65 The relationship between receptors and effects is not generally a linear one and there are no hard or fast rules about what makes an effect significant. Judgements are therefore supported by qualitative text to draw out the key issues, describe the effects and explain the underlying rationale.
- 5.66 In terms of landscape effects, paragraph 5.56 of GLVIA3 notes that at opposite ends of the spectrum:
- *‘Major loss or irreversible negative effects, over an extensive area, on elements and/or aesthetic and perceptual aspects that are key to the character of nationally valued landscapes are likely to be of the greatest significance; and*
 - *Reversible negative effects of short duration, over a restricted area, on elements and/or aesthetic and perceptual aspect that contribute to but are not key characteristics of the character of landscapes of community value are likely to be of the least significance and may, depending on the circumstances, be judged as not significant.’*
- 5.67 In terms of visual effects, paragraph 6.44 of GLVIA3 notes that:
- *‘Effects on people who are particularly sensitive to changes in views and visual amenity are more likely to be significant;*
 - *Effects on people at recognised and important viewpoints or from recognised scenic routes are more likely to be significant; and*
 - *Large scale changes which introduce new, non-characteristic or discordant or intrusive elements into the view are more likely to be significant than small changes or changes involving features already present in the view.’*
- 5.68 Paragraph 3.33 of GLVIA3 confirms that the EIA Regulations do not require thresholds of significance to be established, stating:
- ‘It is not essential to establish a series of thresholds for different levels of significance of landscape and visual effects, provided that it is made clear whether or not they are considered significant. If however, more distinction between levels of significance is required a word scale for degrees of significance can be used (for example a four point scale of major/ moderate/ minor/ negligible).’*
- 5.69 For the purposes of this assessment, effects will be categorised as major, moderate, minor and negligible. Each of the four categories covers a broad range of effects and represents a continuum or sliding scale.
- 5.70 It is worth noting that effects which are judged to be major are those which should typically be given the greatest weight in decision making. They usually concern the immediate area around a site and close views from sensitive locations. Moderate levels of effect are of progressively reducing importance but are still considered significant. Effects judged to be minor are those which the decision maker should be aware of, as they constitute noticeable changes in views, but are unlikely to warrant as much weight in the decision making process.

Cumulative Effects

- 5.71 The LVIA will also include potential cumulative effects of the proposed scheme and other developments proposed in the area. The assessment will broadly follow the approach for the LVIA set out above. A more detailed scope will be provided for agreement at a later stage when more information is known about projects to be scoped in/ out of the cumulative assessment.

- 5.72 The LVIA will input into the assessment of two types of cumulative effects. These are inter-project effects and intra-project effects (see **Chapter 1** of this Scoping Report).

Reporting

- 5.73 The landscape, visual and associated cumulative assessment will be reported within the same chapter of the Environmental Statement (ES) and will be supported by figures, photographs and photomontage views as appropriate. The chapter will summarise the likely effects and will refer to tables included in an appendix, which will detail the information recorded for each individual receptor or representative receptor.

Proposed Mitigation Measures

- 5.74 Mitigation to address the adverse effects on landscape and views in relation to both below and above ground infrastructure will be considered in the assessment. These measures will include the design and micro-siting of infrastructure and temporary working areas, and on-site and off-site planting proposals to minimise landscape and visual effects. In addition, opportunities for landscape enhancement will be explored. Detailed mitigation proposals will be described in the ES and will be factored into the assessment. The assessment of the proposed scheme will be undertaken at the year of commission. Where differences are anticipated following the establishment of mitigation planting this will be reported as of Year 15.
- 5.75 The most effective mitigation measures are ones which are integral to the proposed scheme. A distinction is therefore made between landscape measures designed as an intrinsic part of the proposed scheme (primary or 'embedded' measures) and those which are intended to specifically counter any residual negative effects of the proposed scheme (secondary measures) (see also **Chapter 1** of this Scoping Report).
- 5.76 Residual effects are those effects which remain after mitigation. The significance of these will be assessed using the methods outlined above.

Issues to be Scoped Out

- 5.77 The LVIA will not assess the effects of the proposed scheme on any landscape or visual receptors that are located outside the LVIA study area unless they are particularly sensitive receptors, which have been highlighted either through the ZTVs or through discussion with stakeholders and interested parties.
- 5.78 The LVIA will not assess the effects of the proposed scheme on landscape or visual receptors that are located wholly outside the ZTV.
- 5.79 Effects on residential receptors outside of public spaces are not included because in law, private individuals do not have a right to a view (as established in the Lavender case²) and impacts on living conditions are usually dealt with through a separate residential visual amenity assessment, if required. In this case such an assessment is not considered to be required because the proposed scheme is not likely to be so overbearing or dominating as experienced from any individual property, as a result in unacceptable living conditions.

² Lavender v Mackenzie Test (2009) (Enifer Downs & Langdon) Public Inquiry (APP/X2220/A/08/2071880)

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6 Ecology

Introduction

- 6.1 This chapter details the preliminary findings of a desk-based study and initial walkover surveys of the proposed scheme's search area for permanent development (the search area) (see **Figure 1.2**). Where appropriate, reference is made to the initial findings of these studies in the baseline information presented. This information has been used to identify ecological receptors and refine the scope of the ecological surveys.
- 6.2 This chapter also details the methodology to be followed during the Ecological Impact Assessment (EclA) that will be incorporated in to the Environmental Statement (ES).
- 6.3 The purpose of the EclA will be to:
- identify and describe existing ecological receptors within and around the proposed locale of the scheme in a defined area (the zone of influence); and
 - to assess the significance of the impacts of the scheme and associated infrastructure on these ecological features following the implementation of agreed mitigation measures.
- 6.4 Recommendations for avoidance, mitigation, compensation and enhancement measures will be proposed to minimise any adverse impacts on ecological receptors. Where necessary, the significance of any residual impacts will be assessed. Examples of potential mitigation measures are described in this chapter; however, formal mitigation proposals will be set out in the EclA.
- 6.5 In accordance with the EIA Regulations, the assessment will identify and appraise the potential effects that may arise during the construction, operational and decommissioning phases.

Legislation and Policy

- 6.6 Legislation and planning policy relevant to the EclA comprises:
- The Conservation of Habitats and Species Regulations 2010 (as amended);
 - The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979);
 - EC Wild Birds Directive 1979 (European Directive 79/409/EEC on the conservation of wild birds);
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Countryside and Rights of Way Act 2000;
 - Hedgerow Regulations 1997;
 - Natural Environment and Rural Communities Act (NERC) 2006;
 - Protection of Badgers Act 1992;
 - National Planning Policy Framework (March 2012);

- Biodiversity 2020: A Strategy for England's wildlife and ecosystem services (2011);
- Circular 06 / 2005 (Biodiversity and Geological Conservation);
- Barnsley Local Development Framework, Core Strategy, Adopted September 2011; and
- Peak District National Park Local Development Framework, Core Strategy Development Plan Document, Adopted October 2011.

Consultation

- 6.7 Consultation with relevant stakeholders has been undertaken in respect of the ecological scope of work including Natural England (NE), Barnsley Metropolitan Borough Council (BMBC) and Peak District National Park Authority (PDNPA) since the commencement of the baseline ecology surveys work in October 2015. This has included various meetings and site visits. A meeting was held with BMBC in April 2016 to discuss the proposed works with particular regard to potential siting of the SEC in or adjacent to Wogden Foot Local Wildlife Site (LWS). Furthermore a site meeting was held in early June 2016 to discuss the ecological scope of work and the proposed elements of the scheme, particularly in relation to Wogden Foot LWS. This was attended by a range of stakeholders including BMBC, Yorkshire Wildlife Trust, the Wildlife Trust for Sheffield and Rotherham and the Trans Pennine Trail Conservation Volunteers. Draft copies of the ecology section of this scoping report have been issued to NE, BMBC and the PDNPA for review and comment.

Baseline Environment

- 6.8 The baseline ecological conditions have been summarised within this Scoping Report and are based upon the ecological work conducted to date as follows, with other surveys ongoing:
- Ecological desk study including a review of aerial photography;
 - An Extended Phase 1 Habitat Survey including faunal assessment reported in a Preliminary Ecological Appraisal (PEA) (**Appendix A**);
 - Wintering bird surveys (October 2015 to March 2016); and
 - Winter bat survey work at Woodhead Tunnel.
- 6.9 Three frames of geographical reference were used during the completion of the PEA (these are shown on **Figure 1** of **Appendix A**):
- Ecological Study Area - This comprises of a radius of 2km (statutory sites) and a 1km radius (non-statutory sites and protected and notable species records) from the ecological survey area;
 - Ecological Survey Area – An area of land encompassing the proposed scheme's search area for permanent development and up to a 250m buffer (unless physical barriers exist) to account for protected species and habitats in the wider zone of influence. This is the land which was subject to the Extended Phase 1 Habitat Survey; and
 - Search Area for Permanent Development - Comprises the area within which the underground cabling and the sealing end compound may occur as defined by the EIA screening request. Based on current knowledge, this search area has been

drawn sufficiently wide enough to take account of potential route alignment options.

- 6.10 The potential zone of influence i.e., the two areas applied above were defined with reference to the proposed scheme description and professional guidance for Preliminary Ecological Appraisal (PEA). The area seeks to consider the potential distance from the work and the habitats or species present that may be affected by those works e.g. the terrestrial habitats within which great crested newt may disperse from a breeding pond.

Desk Study

- 6.11 As part of the PEA, an initial ecological desk study was undertaken to gain information of ecological receptors that could be affected by the proposed scheme; these are listed below.

- Multi-Agency Geographic Information for the Countryside (MAGIC);
- Barnsley Biological Records Centre; and
- PDNPA.

- 6.12 The MAGIC website was consulted to determine whether any statutory designated sites were present within the ecological study area. The website includes information on European designations (Special Areas of Conservation (SAC), Special Protection Areas (SPA) and internationally designated wetlands (Ramsar)). Information on nationally designated sites (Sites of Special Scientific Interest (SSSI)) along with other notable sites such as Ancient Woodland was also searched for.

- 6.13 The presence of non-statutory designated sites and protected / notable species were identified through the data request from Barnsley Biological Record Centre.

Designated Sites

- 6.14 The desk study conducted as part of the PEA has determined the presence of designated sites located within proximity to the proposed scheme. These sites are detailed below and shown in the full PEA in **Appendix A**.

Statutory Sites

- 6.15 There are no statutory designated sites located entirely or partially within the ecological survey area, however the following statutory designations are located within the wider ecological study area:

- South Pennine Moors SAC;
- Peak District Moors (South Pennine Moors Phase 1) SPA; and
- Dark Peak SSSI.

- 6.16 These designated sites, at their closest point (where the SAC, SPA and SSSI boundaries align), are located approximately 160m west of the ecological survey area and 280m west of the search area.

- 6.17 Furthermore, the western end of the ecological survey area lies within the 1km Impact Risk Zone that applies to the Dark Peak SSSI / Peak District Moors SPA and South Pennine Moors SAC.

- 6.18 More details of these sites including reasons for designation are outlined in the PEA report at **Appendix A**.

Non Statutory Sites

- 6.19 Two non-statutory nature conservations designations; termed as Local Wildlife Sites (LWS), are present entirely or partially within the ecological study area. These are:

- Wogden Foot LWS – this site is located within the central/eastern section of the ecological survey area between the River Don and the Trans-Pennine Trail.
- Western Moors LWS – this site is located partially within the ecological survey area forming the majority of the land to the south of the Trans-Pennine Trail.

6.20 More details of these sites including reasons for designation are outlined in the PEA report at **Appendix A**.

Habitats

6.21 In brief, the ecological survey area consists of a variety of habitats including woodland (coniferous plantation, mixed plantation and broadleaved), scrub, grassland (improved, poor semi-improved, semi-improved and unimproved), arable dry heath/acid grassland mosaic, bracken stands, amenity grassland, standing water and running water. The Trans-Pennine Trail starts to the west of the main bridge in Dunford Bridge village and runs along a disused railway line through the middle of the ecological survey area. This trail is enclosed by two bands of broadleaved woodland for the majority of its length through the ecological survey area. The majority of this woodland is semi-mature comprising of silver birch (*Betula pendula*), goat willow (*Salix caprea*), elder (*Sambucus nigra*) and sycamore (*Acer pseudoplatanus*), and unlikely to contain significant bat roost potential. A hillside composed of predominantly dry heath/acid grassland and bracken mosaic is located to the south of the trail with areas of unimproved grassland, with areas consistent with marshy grassland or dominated entirely by bracken. These areas were suitable to support reptiles.

6.22 By contrast, more formalised sheep grazed farmland is located within the northern half of the ecological survey area consisting of predominantly improved grassland and poor semi-improved grassland. The majority of the field boundaries consist of traditional stone walls or post and wire fences where the walls may have been removed or where smaller paddocks have been created such as around Eltock Farm. Occasional mature trees (generally ash (*Fraxinus excelsior*) oak (*Quercus sp.*) or alder (*Alnus glutinosa*) are located along the field boundaries and in small pockets around the ecological survey area. An area comprising a vegetated spoil heap is located to the west of the ecological survey area, classified as bare ground/spoil, the banks and exposed rubble within this area may be suitable to support reptiles. Also in the northern area is a small element of arable habitat and amenity grassland of the gardens and lawned areas associated with the residential properties. Furthermore, the far west of the ecological survey area is formed of plantation woodland both coniferous and mixed plantation woodland, located between this and the start of the Trans-Pennine Trail the habitat is mainly composed of houses and farms including their associated roads, gardens and outbuildings.

6.23 The River Don runs through the centre of the ecological survey area in an easterly flow direction originating from Winscar Reservoir, and comprising of a shallow channel watercourse with a stony channel substrate. The channel is approximately 3-4m in width with a moderate to fast flow at the time of the survey. The southern side of the watercourse is wooded and embanked up to the former railway line but has moderately sloping banks along its northern bank which are generally more open except for the occasional mature tree.

Protected and Notable Species

6.24 **Table 6.2** provides a summary of potentially relevant species identified through a combination of desk study and field survey. The table summarises the conservation status of each species/group of species and provides supporting comments for those which have been identified as being present or potentially present within the ecological survey area.

6.25 Species present within the ecological survey area are those for which recent direct observation or field signs confirmed presence. Species which are possibly present are

those for which there is potentially suitable habitat based on the results of the Extended Phase 1 Habitat Survey, or this combined with desk study records. Species unlikely to be present are only mentioned where there are desk study records but there is no suitable habitat in the zone of influence, or there are other reasons why presence is unlikely. Brief comments are provided to support the determinations made in **Table 6.2**.

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Table 6.2: Protected and notable species relevant or potentially relevant to the proposed scheme

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
Great crested newt (<i>Triturus cristatus</i>)	✓	✓	✓		(✓)	✓	<p>Nine waterbodies and suitable terrestrial habitat are present within the ecological survey area.</p> <p>Terrestrial habitat capable of supporting foraging and hibernating newts is present within the ecological survey area, within 250m of waterbodies identified. This is the distance newts will typically disperse (subject to habitat quality/connectivity and lack of barriers) from breeding ponds into terrestrial habitat (Langton et al., 2001).</p> <p>No records were returned for great crested newt (nor any other newt species) within the ecological study area.</p> <p>Habitat Suitability Index (HSI) assessments were undertaken for each pond (Appendix D within the PEA (Appendix A of this Report) provides the breakdown of the calculations and Figure 3 shows the pond locations) which calculated the following HSI scores for the ponds as:</p> <ul style="list-style-type: none"> • Pond 1: Below Average (0.59); • Pond 2: Below Average (0.53); • Pond 3: Average (0.64); • Pond 4: Average (0.61); • Pond 5: Average (0.64); • Pond 6: Below Average (0.54); • Pond 7: Poor (0.42);

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							<ul style="list-style-type: none"> • Pond 8: Below Average (0.55); and • Pond 9: Average (0.63). <p>Factors which influence the suitability of ponds (and terrestrial habitat) to support great crested newt are the presence of barriers to dispersal e.g. the River Don, and relatively isolated nature of the ecological survey area in relation to other ponds within the local area. However, the presence of this species cannot be completely scoped out without completion of additional assessment/ survey of areas likely to be affected by the works (as detailed in Appendix A).</p>
Bats (Roosting)	✓	✓	✓		(✓)	✓	<p>No records of bats were provided by the desk study; however, this is likely only to indicate that the area is unrecorded rather than an absence of bats.</p> <p>Mature trees and built features with potential to support roosting bats are present within the ecological survey area. These include buildings, culverts, old bridges and the Woodhead/Dunford Bridge Tunnel and adjacent stone retaining walls located at the western end of the ecological survey area.</p> <p>The outcome of the visual inspection of the tunnel concluded that whilst there is low roosting potential in the stone fascia around the tunnel entrance (the stone work is prominently intact) the presence of roosting opportunities within the tunnel itself cannot be ruled out. It is understood that bat survey work, including condition assessment within the entire length of the tunnel, has also been previously conducted to support cable relocation work and concluded that the tunnel had limited roosting opportunity due to temperature and humidity conditions and lack of roosting opportunities within the structure which is concrete lined.</p>

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							<p>Remote bat detectors have been installed in the entrance to the tunnel within which the cables are currently installed between mid-February and the end of April to investigate potential hibernation/early spring activity. These remote bat recording devices were installed at the tunnel entrance (with a second device located ~100m from the entrance; due to safety restrictions they could not be installed further into the tunnel). Following a period of recording on over 35 nights within this period (which extended in to the early spring bat active season) no bat passes were detected. Remote bat recording has continued into May and June in combination with activity surveys (see Section 1.29).</p> <p>Further assessment of trees and structures which could be potentially affected by the proposed scheme, including completion of dusk/dawn surveys of the Woodhead Tunnel are recommended to determine the presence of bat roosts. Information on previous survey work which may have been conducted will also be reviewed (as detailed in Appendix A).</p>
Bats (Activity)	✓	✓	✓		✓	✓	<p>Woodland areas, the River Don and associated vegetated corridor present within the ecological survey area provide suitable terrestrial bat foraging and commuting habitat. Further survey of potentially affected areas would be required for the value for foraging and commuting bats in combination with the completion of roost surveys (detailed in Appendix A).</p>
Birds (breeding and wintering)	✓	✓	✓	✓	✓	✓	<p>Records of NERC Act Section 41 species were returned from the records centre and suitable habitat (including heathland, woodland, river corridor and farmland) and built features are present within the ecological survey area which could support breeding and wintering birds.</p>

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							<p>Wintering bird surveys have been completed (October 2015 – March 2016) within the ecological survey area. Results have recorded peregrine (<i>Falco peregrinus</i>), dipper (<i>Cinclus cinclus</i>), red grouse (<i>Lagopus lagopus scotica</i>) and sparrowhawk (<i>Accipiter nisus</i>) within the ecological survey area.</p> <p>Breeding bird surveys between March and June 2016 have been undertaken of likely affected areas (detailed in Appendix A).</p>
Badger (<i>Meles meles</i>)	✓	✓	✓		(✓)	✓	<p>Suitable habitat is present within the ecological survey area to support badger (e.g. woodland for sett creation and grassland for foraging) however, no records were returned from the records centre. Although no records or setts were identified during the survey, the survey did not intensively search areas of woodland or scrub. Previous consultation with stakeholders has noted 2 setts in Wogden Foot.</p> <p>Therefore, a further survey of any areas likely to be affected by the works would be required to fully determine the presence of setts.</p>
Otter (<i>Lutra lutra</i>)	✓	✓	✓		✓	✓	<p>Suitable habitat for otter is present along the River Don although no records were returned from the records centre. Barnsley Biodiversity Trust indicates that there has also been evidence of otter activity on a tributary of the River Don in the west of the borough (Ref: http://barnsleybiodiversity.org.uk/otter.html).</p> <p>Further survey is required of areas where works are likely to affect this species (detailed in Appendix A).</p>
Water vole (<i>Arvicola</i>)	✓	✓	✓		(✓)	✓	Records were returned from The Peak District National Park Authority for the ecological study area for this species.

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
<i>amphibius</i>)							<p>The River Don and associated minor watercourses located within the ecological survey area provide some limited potential to support this species. Although the habitat is considered to be sub-optimal due to their isolated nature and rocky, fast flowing channel conditions without a further survey/assessment the presence of this species cannot be ruled out.</p> <p>Therefore a survey is recommended, this could be conducted in combination with the survey recommended for otter (detailed in Appendix A).</p>
Reptiles	✓	✓	✓		✓	✓	<p>Records of common lizard were returned from the record centre and suitable habitat for reptiles is present within the ecological survey area (Target notes 6, 8 and 17, Figure 2A and 2B of Appendix A). Anecdotal evidence of common lizard exists from Wogden Foot LWS.</p> <p>Further survey is required to determine if reptiles are present within the ecological survey area (detailed in Appendix A).</p>
Mountain hare (<i>Lepus timidus</i>)		✓	✓		✓	✓	<p>Records were returned from records centre and the heathland to the south of the ecological survey area provides suitable habitat for this species, although the ecological survey area is not considered to be of high enough altitude to be optimal for this species.</p> <p>It is unlikely that the proposed scheme would result in significant potential effects upon habitats likely to be used by mountain hare, therefore it is not considered necessary to undertake further detailed surveys for this species.</p>
Brown hare		✓	✓		✓	✓	Records were returned from the records centre and suitable habitat

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
(<i>Lepus europaeus</i>)							(including grassland, woodland and heathland) is present within the ecological survey area. It is unlikely that the proposed scheme would result in significant potential effects upon habitats likely to be used by brown hare, therefore it is not considered necessary to undertake further detailed surveys for this species.
Notable invertebrates		✓	✓		✓	✓	Records of cinnabar (<i>Tyria jacobaeae</i>), small heath (<i>Coenonympha pamphilus</i>) and dingy skipper (<i>Erynnis tages</i>) were returned from the records centre. Furthermore Wogden Foot LWS support habitats which are of interest for terrestrial invertebrates, including potential to support glow worm (<i>Lampyris noctiluca</i>). Surveys for notable terrestrial invertebrates are recommended where habitats which could support notable invertebrates are present e.g. Wogden Foot LWS, and which could be affected by the proposed scheme. In addition to results of the surveys the assessment of the potential impacts of the proposed scheme will also be informed using online, desk study and habitat suitability assessment information.
White clawed crayfish (<i>Austropotamobius pallipes</i>)	✓	✓	✓			✓	Neither the desk study records nor the consultation undertaken to date has indicated that the ecological survey area is likely to support significant populations of white clawed crayfish. The distribution of this species within the river catchments located within the ecological study area is known to be scarce, and no habitat suitable to support this species is likely to be affected by the proposed scheme. Therefore no further field surveys are recommended for this species.

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
Invasive non-native species			✓	✓	✓	✓	Rhododendron is present throughout the ecological survey area. Whilst no other invasive plant species were identified within the ecological survey area, given the timing of the survey in winter (when some species would not be evident), a more extensive and thorough survey would be required to determine full extent of rhododendron and other invasive non-native species which may be present.
Fish		✓			✓	✓	Whilst not designated the River Don has potential to support notable fish species but will not be directly affected by the proposed scheme. Whilst no further field surveys are recommended for this species group, the potential indirect impacts of the proposed scheme on fish (and aquatic ecology) e.g. indirect construction effects from silt laden run off, will be assessed using online, desk study and habitat suitability assessment information.
Hedgehog (<i>Erinaceus europaeus</i>)		✓	✓		✓	✓	Records were returned from the records centre and suitable habitat (including grassland and woodland) for this species is present within the ecological survey area. It is unlikely that the proposed scheme would result in significant potential effects upon habitats likely to be used by hedgehog; therefore it is not considered necessary to undertake further detailed surveys for this species.
Habitats of botanical interest			✓	✓	✓		Areas of habitat of potential and confirmed botanical interest e.g. Wogden Foot LWS and along the TPT verges are present within the ecological survey area. Detailed botanical survey is recommended where habitats which could be of particular interest/value and which

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							could be affected by the proposed scheme.

Key to symbols: ✓ = yes, see Supporting Comments for further rationale

Legally protected species are those listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); and, Schedules 2 and 4 of The Conservation of Habitat & Species Regulations 2010 (as amended).

Species of Principal Importance as those listed under Section 41 of the NERC Act 2006. Planning Authorities have a legal duty under Section 40 of the same Act to consider such species when determining planning applications.

Other notable species include native species of conservation concern listed in the LBAP (except species that are also of Principal Importance), those that are Nationally Rare, Scarce or Red Data List, and non-native controlled weed species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Potential Impacts

- 6.26 The potential environmental impacts will be assessed within the subsequent EclA for the proposed scheme's construction, operational and decommissioning phases. There are three broad sources of impact on ecological receptors: the installation of the underground cable, the removal of the existing pylons within the VIP subsection and the construction of a SEC and replacement terminal pylon.
- 6.27 At this stage, it is identified that the proposed scheme has the potential to result in impacts on ecological receptors (designated sites, habitats and species) as detailed in **Table 6.3**.

Table 6.3: Potential ecological impacts considered likely in connection with the proposed scheme

Construction
Loss of habitats due to removal of vegetation– e.g. hedgerows, watercourses, trees, grassland and integrity of designated sites
Damage to habitats i.e. trees being retained (above ground and root systems)
Direct loss of habitats supporting protected and notable species, direct killing, injury of protected and notable species.
Disturbance to habitats – e.g. noise, traffic and pollution on watercourses, trees, grassland, and integrity of designated sites
Disturbance to species – e.g. noise, traffic, lighting and temporary loss of habitat, temporary restrictions to movement e.g. great crested newt or flight lines for bats
Fragmentation of habitats (loss of wildlife corridors)
Restoration of habitats/enhancement
Operational
Fragmentation of habitats (loss of wildlife corridors)
Disturbance to species and habitats from the operation of the new SEC e.g. noise
Reduction in potential collision risk (birds and bats) with the removal of the existing overhead section
Decommissioning
As for construction

Proposed Assessment Methodology

Desk-based Study

- 6.28 Data has been collated to inform this Scoping Report, as described above. Further data gathering with specialist recorders (including the local bat, bird and badger group) will also be carried out, where appropriate, to further inform the scope of the Phase 2 surveys and ecological assessment.

Phase 2 Ecological Surveys

- 6.29 Based upon the findings of the initial consultation and PEA, the scope of work has been defined. The proposed scope of the Phase 2 ecological surveys which will be undertaken to determine the ecological baseline conditions of the ecological survey area) will be undertaken with accordance with current Chartered Institute of Ecology and Environmental Management (CIEEM) methodology guidance. The proposed Phase 2 surveys are:
- Badger - suitable habitat present for this protected species. A badger survey will be undertaken to establish the status of setts and important foraging areas in accordance with published guidance (Cresswell, Harris & Jeffries, 1989). Surveys can be undertaken all year but it is proposed to undertake this during spring before vegetation becomes too dense.
 - Bats - bat roost potential assessments of mature trees and structures will be undertaken. Following the completion of the initial assessment for roosting potential, dusk/dawn surveys will be conducted on potential roost features located within and adjacent to works areas which could be impacted by the proposed scheme. Furthermore bat activity transect surveys will be conducted on a monthly basis between May and September within the ecological survey area, including within Wogden Foot and along the TPT to determine the value of the habitats within the survey area for foraging and commuting bats. Surveys will be undertaken in accordance with Collins (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (Bat Conservation Trust), third edition;
 - Reptiles - desk study records indicated likely presence of common species;— presence/likely absence surveys where potential impacts may occur to significant areas of suitable habitat will be undertaken in accordance with guidance outlined in Froglife (1999);
 - Great crested newt surveys – whilst no desk study records were provided for the ecological study area, nine suitable waterbodies have been identified within the ecological survey area as well as moderate quality terrestrial habitat. Surveys will be conducted if the ponds and/or surrounding terrestrial habitat up to 250m are likely to be affected by the proposed scheme. Surveys have been conducted on these ponds between March and June 2016 in accordance with Natural England survey guidelines (2001) using traditional i.e. bottle trapping/torchlight surveys and environmental DNA survey methods. No great crested newts have been recorded in any of the ponds subject to survey. A low number of common species of amphibian; common frog (*Rana temporaria*) and common toad (*Bufo bufo*) have been identified in a number of ponds.
 - Otter and water vole surveys – River Don provides suitable habitat for otter within the ecological survey area; records of water vole provided by the desk study on the smaller adjoining tributaries; surveys will be undertaken for both species on these watercourses in accordance with the Water Vole Conservation Handbook, third edition, (Strachan *et al.*, 2011); and for otter Lenton *et al.* (1980);

- Breeding bird survey – Peak District Moors (South Pennine Moors Phase 1) SPA is primarily designated for breeding merlin (*Falco columbaris*), golden plover (*Pluvialis apricaria*) and short-eared owl (*Asio flammeus*), in addition habitats within the ecological survey area are likely to support other legally protected and notable species. Surveys have involved completion of four survey visits between March and end June 2016 comprising of a walked transect to encompass the key habitats within the site.
- Wintering birds – habitat suitable to support overwintering bird species of conservation concern is present within the ecological survey area, proximity to SPA and SSSI; one visit per month between October 2015 and March 2016 inclusive has been conducted to establish the value of the ecological survey area for wintering birds in line with published guidance (Gilbert *et al.*, 2001). A summary of the initial results is included in **Table 6.2**. Based upon the results of the surveys conducted to date it is not intended to undertake a second winter of survey work;
- Detailed botanical survey - It is acknowledged that the Phase 1 Habitat survey was conducted at a sub optimal time of the year in order to be able to fully assess the potential botanical interest of certain habitats. Whilst the timing of the survey has not limited the classification of the habitat types in accordance with the Phase 1 criteria, a Phase 2 detailed vegetation survey (e.g. a National Vegetation Classification (NVC) survey) has been conducted during the June 2016 to fully determine the botanical interest in sensitive locations where potential effects are predicted e.g. within the Wogden Bottom/Wogden Foot area subject to the layout of the proposed scheme. Methods used will follow the NVC Users' Handbook (Rodwell, 2006);
- Non-native invasive species – rhododendron recorded within the ecological survey area. No further detailed surveys for invasive species are proposed. However the design and construction methods will include measures that seek to avoid areas of invasive species. Where this is not possible measures to control the spread of invasive plant species will be adopted;
- Terrestrial invertebrates – Wogden Foot LWS and other discrete areas within the ecological survey area are known or have potential to support notable species of terrestrial invertebrate. Therefore terrestrial invertebrate surveys comprising of an initial habitat assessment followed by at least three survey visits between early June and the end of August will be undertaken. Survey methodologies will broadly follow guidance given in Drake, *et al.* (2007) Surveying terrestrial and freshwater invertebrates for conservation evaluation. Natural England Research Report NERR005. Survey techniques will include walking visual transects, including into the evening for possible glow worm sightings, timed sweep netting and ground searching. Additional specialist records which may be available from Yorkshire Naturalists' Union (YNU) or the Sorby Naturalists relevant to the LWS and which may not have already been provided by the Barnsley Biological Records Centre (BBRC) will be requested. The proposed scope for terrestrial invertebrate survey work was provided to BMBC for review and comment.

6.30 The specific scope and extent of the recommended Phase 2 surveys will take into account the layout/location of the proposed scheme as well as the proposed construction methods which may be employed and the land take required for such work. Survey work will be undertaken on all land within the Zone of Influence of the proposed works.

- 6.31 The results of these surveys will inform the evaluation of the proposed scheme for ecological receptors and support provide a robust baseline to support the EclA, within which opportunities for ecological mitigation and enhancement will be explored fully.

EclA Assessment Methodology

- 6.32 The recently updated 'Guidelines for Ecological Impact Assessment in the UK and Ireland Terrestrial, Freshwater and Coastal' (CIEEM, 2nd edition January 2016) (the 'CIEEM Guidelines') provide guidance on the process of identifying the value of ecological receptors, characterising effects upon them and assessing whether these effects are significant. The EclA will also be undertaken in accordance with BS42020:2013 Biodiversity – Code of practice for planning and development (BSI, 2013).
- 6.33 This guidance follows a 'biodiversity' approach to impact assessment (rather than solely relying on the legal protection of a habitat or species to characterise ecological value other factors such as local abundance and rarity are also considered).
- 6.34 Although the new guidelines do not advocate a matrix style approach to assessment this methodology has been based on a hybrid approach which utilises matrices where they will be useful in providing certainty to the means by which valuations have been made. For a complex project such as the proposed scheme at this site this was judged to be the most appropriate approach. The assessment method uses a process of assigning ecological values to the identified ecological receptors, as presented in **Table 6.3**, predicting and characterising potential ecological impacts and mitigation measures and, through this process, determining the significance of residual effects on ecological receptors.

Assigning Ecological Value/Importance

- 6.35 The EclA guidelines suggest that the value or importance of an ecological resource or feature should be defined in terms of a geographic scale. Therefore the value (or potential value) of ecological receptors on, and in the immediate vicinity of, the search area has been considered at the following scales:
- International;
 - National (i.e. England/Northern Ireland/Scotland/Wales);
 - Regional (i.e. North of England);
 - County (i.e. Derbyshire and South Yorkshire);
 - District (Peak District);
 - Local i.e. (the survey area plus a 1km radius); and
 - Site (i.e. survey area).
- 6.36 Where the value is considered less than of site value it is considered 'negligible'.

Table 6.3: Resource/Receptor Evaluation Criteria

Value/Sensitivity of Resource/Receptor	Example Criteria
Very High (International)	<p>An internationally designated site or candidate/proposed site (Special Protection Area (SPA), potential SPA, Special Area of Conservation (SAC), candidate SAC and/or Ramsar site).</p> <p>A sustainable area of a habitat listed in Annex I of the Habitats Directive or smaller areas of such habitat which are essential to maintain the viability of the larger whole.</p> <p>Sustainable population of an internationally important species or site supporting such a species (or supplying a critical element of their habitat requirement) i.e.:</p> <ul style="list-style-type: none"> - IUCN Red List species that is listed as critically endangered, endangered or vulnerable; or - Species listed in Annex IV of the Habitats Directive; or - Sites that support 1% or more of a biogeographic population of a species; or - The species is at a critical phase of its life cycle.
High (National)	<p>A nationally designated site (Site of Special Scientific Interest (SSSI), National Nature Reserve) or a discrete area which meets the selection criteria for national designation (e.g. SSSI selection criteria). An area formally selected by Defra as a Nature Improvement Area.</p> <p>A sustainable area of a priority habitat identified in the UK BAP or of smaller areas of such habitat, which are essential to maintain the viability of the whole.</p> <p>Sustainable population of a nationally important species or site supporting such a species (or supplying a critical element of their habitat requirement) i.e.:</p> <ul style="list-style-type: none"> - Species listed on Schedules 5 and 8 of the WCA (1981); - UK Red Data Book species; - Other species listed as occurring in 15 or fewer 10 km squares in the UK; or - Sites supporting 1% or more of a national population.
Medium – High (Regional)	<p>Sites/populations which exceed the County-level designations but fall short of SSSI selection guidelines, including the following:</p> <ul style="list-style-type: none"> - Sustainable areas of key habitat identified in the Regional BAP or smaller areas of such habitat, which

Value/Sensitivity of Resource/Receptor	Example Criteria
	<p>are essential to maintain the viability of the whole;</p> <ul style="list-style-type: none"> - Population of a species listed as being nationally scarce which occurs in 16-100 10 km squares in the UK; - Population of a species listed in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation; or - Sites supporting 1% or more of a regional population.
Medium (County)	<p>Some designated sites (including Sites of Importance for Nature Conservation, County Wildlife Sites, Sites of Metropolitan Importance).</p> <p>A viable area of habitat identified in the County BAP.</p> <p>Sustainable populations of the following species:</p> <ul style="list-style-type: none"> - Species listed in a County/Metropolitan 'red data book' or BAP on account of its rarity/localisation in a county context; or, - Sites supporting 1% or more of a county population.
Local	<ul style="list-style-type: none"> - Very low importance and rarity, local scale: - Areas of habitat considered to appreciably enrich the habitat resource within the ecological study area itself. - A small population of a species of conservation concern i.e. listed in the Local BAP.

Nature of Impacts

6.37 Once the ecological receptors (designated site, habitat, assemblage or species) have been identified and their value defined, a judgment is made as to whether the proposed scheme is likely to result in impacts upon each of the identified receptors and, if appropriate, the nature of those impacts. Each potential ecological impact has a number of characteristics that need to be adequately described before effect significance can be assessed. A number of factors have been considered when describing and assessing the nature of ecological impacts, including:

- Extent (area or distance);
- Magnitude (amount or level of effect);
- Duration (in time as short-term (0-5 years), medium-term (5-15 years), long-term (15-25 years) and permanent (greater than 25 years) or related to species' life-cycles);
- Timing and frequency (e.g. related to life cycles and breeding seasons); and
- Reversibility (whether the effect is permanent or temporary).

Significance of Effects and Geographic Scale

- 6.38 Once each of these factors has been considered, a judgment on the significance of the effect on a particular receptor is made. This significance depends on both the characteristics and magnitude of the impact and the value of the receptor. CIEEM states that: *“An ecologically significant effect is defined as an effect (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area.”*
- 6.39 Impacts on ecological integrity of designated sites are described by the Government Circular: Biodiversity and Geological Conservation[2] as: *“... the coherence of ecological structure and function ... that enables it to sustain the habitat, complex of habitats and/or levels of populations or species for which it was classified.”*
- 6.40 The EclA guidelines also provide definitions for the conservation status of habitats and species:
- *“For habitats, conservation status is determined by the sum of the influences acting on the habitat and its typical species, that may affect its long-term distribution, structure and functions as well as the long-term survival of its typical species within a given geographical area”*; and
 - *“For species, conservation status is determined by the sum of influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within a given geographical area.”*
- 6.41 Definitions for the levels of magnitude of impact are described below:
- High magnitude impacts include those where there is the potential to affect the integrity of a significant area by substantially changing in the long term its ecological features, structures and functions, across its whole area, that enable it to sustain the habitat, complex of habitats and/or population levels of species that makes it important;
 - Medium magnitude impacts include those where the ecological integrity of the site is predicted to not be adversely affected in the long term, but where the project is likely to affect some, if not all, of the area’s ecological features, structures and functions in the short or medium term. The site may be able to recover through natural regeneration and restoration; and
 - Low magnitude impacts include those which have the potential to cause some minor impacts of limited extent to an ecological feature and/or its quality. This level of impact can include limited changes over the medium term, noticeable changes over the short term, or barely discernible changes for any length of time. Impacts at this level are often temporary in nature and the site can recover through natural regeneration.
- 6.42 Once an effect is identified, the geographic scale at which it will take effect is established. For example, an effect may not be significant at a national scale but may be significant at a county or local scale. All of these judgments are based, wherever possible, on quantitative evidence; however in some cases the professional judgment of an experienced ecologist may also be required.
- 6.43 Taking the value of the receptor (geographic scale) and the overall impact into account, an evaluation of the significance of an effect can be derived. This is indicated in **Table 6.4**.

Table 6.4: Significance Criteria Matrix

Geographic scale	Magnitude of impact		
	High	Medium	Low
Very High (International)	Major	Major	Major/Moderate
High (National)	Major	Major/Moderate	Major/Moderate
Medium – High (Regional)	Major/Moderate	Moderate	Moderate
Medium (County)	Major/Moderate	Moderate	Moderate/Minor
Low – Medium (District)	Moderate	Moderate/Minor	Minor
Low (Local)	Moderate/Minor	Minor	Minor/Negligible
Low (Site)	Minor/Negligible	Minor/Negligible	Negligible

6.44 Effects on ecology and nature conservation are subsequently assessed under the CIEEM guidance as being:

- Not significant; or
- A significant positive or negative effect at the relevant geographical scale.

6.45 Further explanation is provided in **Table 6.5**.

Table 6.5: Ecological Impacts Significance Criteria in Accordance with CIEEM

Significance		Equivalent CIEEM Assessment
Significant	Major beneficial	Positive impact on ecological integrity or conservation status at regional, national or international level.
	Moderate beneficial	Positive impact on ecological integrity or conservation status at borough - county level.
Non-significant	Minor beneficial	Positive impact on ecological integrity or conservation status at zone of influence - local level.
Neutral	Negligible	No significant impact on ecological integrity or conservation status.
Non-significant	Minor adverse	Negative impact on ecological integrity or conservation status at zone of influence - local level.
Significant	Moderate adverse	Negative impact on ecological integrity or conservation status at borough - county level.
Significant	Major adverse	Negative impact on ecological integrity or conservation status at regional, national or international level.

Cumulative and Interactive Effects

- 6.46 The EclA will consider the interaction of effects with other disciplines, such as surface water, archaeology and cultural heritage, landscape, air quality and noise. As relevant, the EclA will also assess the cumulative effects in association with other proposed schemes in the vicinity of the site.

Proposed Mitigation Measures

- 6.47 This section describes the typical measures that will be considered to mitigate for any potential adverse ecological effects that could arise from the proposed scheme. Four common forms of mitigation are recognised as follows and will be taken into consideration in the EclA:
- Avoidance – Avoidance and prevention of adverse effects through the design of the proposed scheme and sensitive programming of works, for example re-aligning the pipeline to retain important ecological features;
 - Reduction – Mitigation to reduce the scale and severity of effects, for example the use of wildlife proof fencing or restricting construction access in areas of ecological interest;
 - Compensation/replacement – Compensation to offset adverse ecological effects through habitat creation, for example provision of bat boxes / houses to replace bat roosts lost by the proposed scheme or replanting hedgerows/reseeding grassland; and
 - Enhancement – Enhancement and improvement of existing conditions, for example plant species chosen to enhance diversity and ecological interest of the area.
- 6.48 The mitigation measures cannot be detailed in full until the baseline is completed and the impact assessment concluded. However, initial concepts are outlined in this section.
- 6.49 The alignment of the underground cable, where practical, would follow areas that avoid the potential more botanically diverse habitats e.g. acid grassland/heath and unimproved grassland and those which are not tree covered. Works within or within proximity to the LWSs are subject to discussions with stakeholders to identify the optimal method for minimal disturbance in these sensitive areas.
- 6.50 Other potential impacts, where they cannot be avoided, may be mitigated through a range of concepts including:
- Careful design (e.g. careful lighting design at the SEC to ensure minimal incidental illumination of unnecessary areas);
 - Introduction of a Construction Environment Management Plan (CEMP) which would ensure controls on polluting activities and dust generating activities;
 - Controls on noise generation and propagation where necessary;
 - Implementation of European Protected Species Mitigation licences where necessary, including translocation of reptiles (for example) and creation of alternative habitat features (e.g. bat roosts), if required;
 - Restoration of any areas of vegetation clearance to improved habitat quality; and
 - If necessary, provision of compensatory replacement habitat.

6.51 This is an initial preliminary list of concepts and is not intended to be definitive or comprehensive.

Issues to be Scoped Out

6.52 Based upon the outcome of the consultation, desk study, and Extended Phase 1 Habitat Surveys conducted to date, it is proposed that the following receptors will be scoped out from the EclA:

- Hedgerow Surveys - there is an absence of formalised hedgerows within the majority of the ecological survey area;
- White clawed crayfish survey (*Austropotamobius pallipes*) - Neither the desk study records nor the consultation undertaken to date has indicated that the ecological survey area is likely to support significant populations of white clawed crayfish. The distribution of this species within the river catchments located within the ecological study area is known to be scarce and no habitat suitable to support this species is likely to be affected by the proposed scheme; and
- Mountain or brown hare - It is unlikely that the proposed scheme would result in significant potential effects upon habitats likely to be used by mountain hare and brown hare, therefore these species have been scoped out of further assessment.

6.53 It is considered that detailed field surveys are not necessary for fish to inform the EclA. This is based upon their status and distribution, combined with the likely potential effects of the proposed scheme. The EclA will however include desk study assessments of the potential effects of the proposed scheme upon these species groups using online, desk study and habitat suitability assessment information. This information will be considered in combination with the proposed construction methods to determine the potential effects upon ecological receptors.

6.54 The potential indirect impacts on fish and aquatic ecology associated with the River Don and other small watercourses within the ecological survey area will be considered in combination with the assessment of effects upon water resources and water quality. The scope of the assessment of effects upon water resources and water quality is outlined in **Chapter 8** of this Scoping Report.

7 Archaeology and Cultural Heritage

Introduction

- 7.1 This chapter of the Scoping Report considers potential impacts to Cultural Heritage assets, comprising archaeology, built heritage and historic landscape, arising from the proposed scheme.
- 7.2 An initial desk-top appraisal has been undertaken in order to identify the principal cultural heritage issues associated with the proposed scheme, and to determine the scope of further assessment. The initial appraisal focusses primarily on heritage assets within the search area for permanent development (the search area); however assets outside of the search area are referred to where they may be relevant to the proposed scheme and to provide archaeological and historical context.

Legislation and Policy

- 7.3 Legislation and planning policy relevant to the cultural heritage assessment comprises:
- Ancient Monuments and Archaeological Areas Act 1979;
 - Planning (Listed Buildings and Conservation Areas) Act 1990;
 - National Planning Policy Framework (Department for Communities and Local Government (DCLG), 2012);
 - Barnsley Unitary Development Plan (Barnsley Metropolitan Borough Council, 2000);
 - Barnsley Local Development Framework Core Strategy (Barnsley Metropolitan Borough Council, 2011);
 - Barnsley Local Plan Consultation Draft (Barnsley Metropolitan Borough Council, 2014); and
 - Peak District National Park Core Strategy Development Plan Document (Peak District National Park Authority, 2011).

Baseline Environment

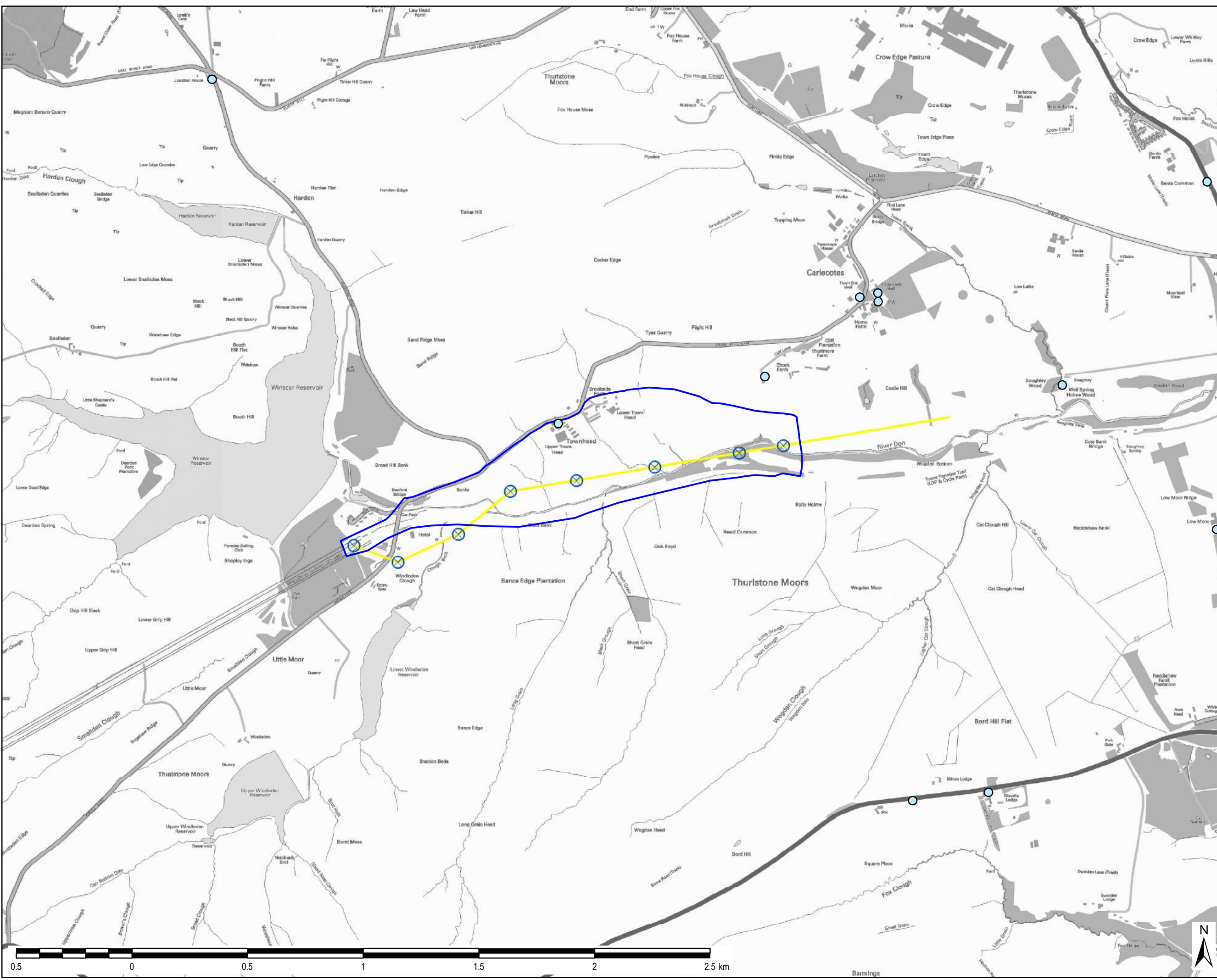
- 7.4 **Figure 7.1** illustrates the location of cultural heritage assets discussed in this section.
- 7.5 There are no scheduled monuments within the search area and only one listed building which is listed Grade II and located at the northern edge of the search area. Another Grade II listed building is located 200m north of the search area and a further three listed buildings, also listed Grade II, are located to the north of Carlecotes, approximately 700m north-east of the search area. There are a further two Grade II listed buildings above Thurlstone Moors to the south of the search area.
- 7.6 An initial desk-top assessment has noted the presence of several non-designated assets and historic landscape features within the search area, including the disused Woodhead

Tunnels. The western end of the proposed scheme terminates at Dunford Bridge. Dunford Bridge was first referenced during the late 13th century but was unlikely to have been settled at that point. Significant activity in the area is recorded in 1839 when work began on the Woodhead Tunnel which ran beneath the moors towards Manchester, and the workforce community established themselves at Dunford Bridge. A railway station at Dunford Bridge was opened in 1846 (NMR 501269) as part of the Sheffield, Ashton under Lyme and Manchester Railway, and was closed in 1970. The station site is now a car park and the old railway line now forms the Trans-Pennine Trail. One of the Woodhead Tunnels is currently used to house cable systems, whilst the other two have been closed.

- 7.7 The search area crosses three historic landscape character types comprising strip enclosure to the east, moorland to the south, and surveyed enclosure to the west. Most of the strip enclosures date to the 16th and 17th century and Carlecotes Town Field and Penistone and Hoyland Swaine Town Field, beyond the search area have 16th and 17th century farm buildings scattered across the enclosed fields.
- 7.8 The moorland to the south of the search area is largely uninhabited, but does have formal enclosure in the form of drystone walls, which are a historic landscape feature. Although largely unchanged by settlement, the moorland is subject to modern management techniques which involves the controlled burning of strips of land (South Yorkshire Historic Environment Characterisation Project (<http://sytimescapes.org.uk>).
- 7.9 Pollen evidence suggests the prehistoric landscape of the upland moors would have been quite different from the current heather dominated moors, and would have attracted Mesolithic hunter-gatherers. Findspots recorded in the South Yorkshire Sites and Monuments Record suggests that the moorland was likely to have been occupied seasonally during the Mesolithic period; however the evidence for later Neolithic activity is sparse.
- 7.10 The River Don runs through the south of the search area and there is a potential for previously unrecorded activity to be present associated with prehistoric water-edge activity. An excavation carried out in 1963 to the south-west of Dunford Bridge identified prehistoric artefacts from a site which was eroding out from a peat bed, at approximately 475 m above Ordnance Datum (Archaeological Services WYAS, 2014), therefore there may be potential for buried peat deposits and the survival of important palaeoenvironmental data within the search area.
- 7.11 A dramatic reduction in woodland cover from the middle Iron Age has resulted in the moorland character seen today, and during the medieval period it is likely the area was communal land which was used as rough grazing until 18th and 19th century parliamentary enclosure removed communal rights (<http://sytimescapes.org.uk>).
- 7.12 It is likely that the South Yorkshire Sites and Monuments Record will identify further non-designated features within the search area. In addition, the search area has the potential to contain previously unrecorded heritage assets including discrete features and findspots associated with early prehistoric activity, and landscape features relating to post-medieval enclosure.

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- KEY**
- Search Area for Permanent Development
 - ⊗ Pylon location
 - 4ZO OHL route
- Listed building
- Grade I
 - Grade II*
 - Grade II



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Purpose of Issue **FINAL**

Client **NATIONAL GRID**

Project Title **VISUAL IMPACT PROVISION**

Drawing Title **LOCATION OF HERITAGE ASSETS PEAK DISTRICT NATIONAL PARK**

Drawn FG	Checked AH	Approved AC	Date 07/07/2016
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Drawing Number **FIGURE 7.1** Rev **01**

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Potential Impacts

- 7.13 The proposed scheme has the potential to result in permanent impacts to buried archaeological remains associated with early prehistoric and post-medieval activity, as well as deposits with the potential to contain palaeoenvironmental data. In addition, it is possible that features associated with the former community at Dunford Bridge are present within the search area, along with industrial remains associated with the former railway and Woodhead Tunnels.
- 7.14 The construction of the new cable sealing end compound (SEC), along with the associated terminal pylon may result in impacts to the setting of listed buildings to the east and north-east of the search area during the construction and operation of the scheme. The setting of these listed buildings would be taken into account during detailed siting of the SEC and terminal pylon. The removal of the existing overhead line (OHL) may also result in a permanent beneficial effect on the setting of heritage assets. The construction of the new cable jointing building by the Woodhead tunnel entrance, at the western edge of the scheme, is unlikely to have an impact on listed buildings in the search area due to the distances involved.

Proposed Assessment Methodology

Baseline Reporting

- 7.15 A cultural heritage baseline report will be produced which will identify all known heritage assets within a defined study area, and describe the significance of the assets, including the contribution made by their setting.
- 7.16 The baseline study area for non-designated assets will entail a 500m corridor either side of the existing OHL and proposed underground cable and SEC location. The study area for designated heritage assets, both statutory and non-statutory, will be set provisionally at 1km either side of the existing OHL and proposed underground cable and SEC location and will be refined following the completion of a walkover survey, the setting assessment and reference to the scheme's zone of theoretical visibility (ZTV) (see **Chapter 5**).
- 7.17 The walkover survey will identify previously unrecorded heritage assets, areas of potential archaeological interest, and areas of ground disturbance to feed into the proposed scheme design. The survey will entail a systematic walkover of the search area. Sites of potential archaeological interest will be plotted using a GPS, and a photographic and written record of the walkover will be maintained. A GIS shapefile of heritage assets that have been identified during the walkover survey will be provided to South Yorkshire's Sites and Monument Record along with an asset description and JPEG images.
- 7.18 The setting assessment will entail visits to the sites of heritage assets in order to identify components of their setting that contribute to their heritage significance, including the extent of associative relationships and intervisibility with other assets.

Data Sources

- 7.19 The following sources will be consulted during the preparation of the baseline report (the list is not exhaustive):
- National Record of the Historic Environment;
 - National Heritage List for England;
 - South Yorkshire Sites and Monuments Record;

- LiDAR, aerial photographs and additional data held by the National Park Authority;
 - Historic maps of the proposed scheme and 500m study area;
 - Defence of Britain database; and
 - Grey literature including local histories, existing archaeological assessment and fieldwork reports.
- 7.20 The baseline assessment will be undertaken in line with relevant legislation and national and local planning policy, and planning policy guidance including:
- Ancient Monuments and Archaeological Areas Act 1979;
 - Planning (Listed Buildings and Conservation Areas) Act 1990;
 - National Planning Policy Framework (NPPF) (DCLG, 2012);
 - National Planning Policy Guidance (DCLG, 2014); and
 - Local Planning Policy including relevant supplementary planning documents.
- 7.21 The baseline reporting, site walkover and assessment of setting will be undertaken in accordance with the published Standards and Guidance and Code of Conduct of the Chartered Institute for Archaeologists (CIfA) and the relevant good practice advice (GPA) guides published by Historic England (formerly English Heritage). Key guidance comprises:
- Standard and Guidance for Historic Environment Desk-based Assessment (CIfA, 2014);
 - GPA 2 Managing Significance in Decision Taking (Historic England, 2015a); and
 - GPA 3: The Setting of Heritage Assets (Historic England, 2015b).
- 7.22 During the preparation of the baseline, consultation will be undertaken with the National Park Authority's cultural heritage team, South Yorkshire Archaeology Service (which covers Barnsley) and Historic England.

Asset Sensitivity/ Significance

- 7.23 The sensitivity of a heritage asset is referred to as its level of 'significance' in heritage policy. The level of heritage significance is determined by professional judgement, and guided by statutory and non-statutory designations, national and local policies, and archaeological research agendas.
- 7.24 Annex 2 of the NPPF defines heritage significance as the "value of an asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic interest" (DCLG, 2012). Paragraph 132 of the NPPF recognises that heritage assets with the highest level of heritage significance comprise Scheduled Monuments, Registered Battlefields, Grade I and II* Listed Buildings, Registered Parks and Gardens and World Heritage Sites.
- 7.25 Taking the criteria set out in the NPPF into account, each heritage asset can be assigned a level of heritage significance in accordance with a four-point scale as set out in **Table 7.1**.

Table 7.1: Criteria for determining heritage significance

Significance	Criteria
High	<p>Assets of inscribed international importance i.e.:</p> <p>World Heritage Sites;</p> <p>Grade I and II* listed buildings;</p> <p>Grade I and II* Registered Historic Parks and Gardens;</p> <p>Registered Battlefields;</p> <p>Scheduled Monuments;</p> <p>Conservation Areas containing historic buildings of the highest significance;</p> <p>Non-designated archaeological assets of schedulable quality and importance;</p> <p>Well preserved historic landscapes, exhibiting considerable coherence, time-depth or other critical factor(s).</p>
Medium	<p>Grade II listed buildings;</p> <p>Grade II listed Registered Historic Parks and Gardens;</p> <p>Conservation Areas;</p> <p>Non-designated heritage assets of a regional resource value as identified through consultation;</p> <p>Non-designated historic landscapes with reasonable coherence, time-depth or other critical factor that would justify special historic landscape designation, landscapes of regional value.</p>
Low	<p>Non-designated heritage assets of a local resource value as identified through consultation;</p> <p>Historic landscapes of importance to local interest groups or whose value is limited by poor preservation and/or poor survival of contextual associations.</p>
Very low	<p>Non-designated heritage assets of limited resource value or whose heritage values are compromised by poor preservation or damaged so that too little remains to justify inclusion into a higher grade;</p> <p>Landscapes with little or no significant historical interest.</p>

7.26 Following the assessment of significance, the magnitude of impact is assessed which reflects the level of change that may occur to a heritage asset, including its setting, as a result of a proposed development (**Table 7.2**). Impacts may arise during construction, operation or decommissioning and may be temporary or permanent.

Table 7.2: Criteria for assessing the magnitude of impact

Magnitude of Impact	Description
High	Change such that key heritage values are totally altered or destroyed. Comprehensive change to setting resulting in a serious loss to heritage value affecting our ability to understand and appreciate the asset.
Medium	Change such that the heritage values of the asset are affected. Noticeably different change to setting affecting heritage value, resulting in erosion in our ability to understand and appreciate the asset.
Low	Change such that the heritage values of the asset are slightly affected. Slight change to setting affecting heritage value resulting in a change in our ability to understand and appreciate the asset.
Very Low	Changes to the asset that hardly affect heritage values. Minimal change to the setting of an asset that have little effect on heritage value resulting in no real change in our ability to understand and appreciate the asset.
No Impact	No change to the heritage asset or its setting.

7.27 The resulting significance of effect is determined by combining the heritage significance of the asset and the magnitude of impact (**Table 7.3**). This takes into account embedded mitigation measures that have been incorporated into a proposed development as part of the design development process in order to reduce potentially significant effects.

Table 7.3 Criteria for determining the significance of effect

Significance (heritage value)	Magnitude of Impact			
	High	Medium	Low	Very Low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very Low	Minor	Negligible	Negligible	Negligible

7.28 For the purposes of the environmental assessment process, moderate and major effects are considered to be significant. Additional mitigation can be used to avoid, reduce, compensate or, where appropriate, offset significant effects. Measures to mitigate impacts to heritage assets would normally consist of preservation in situ where possible, or where this is not feasible, investigation and recording before and/ or during construction. Re-assessing the level of effect following the implementation of a suitable mitigation strategy allows the residual impact of a proposed development to be determined (**Table 7.4**). Potential mitigation options are discussed below in this chapter.

Table 7.4: Level of residual effect after mitigation

Residual effect	Definition
Major Adverse	Negative residual effect that would be an important consideration at a national level.
Moderate Adverse	Negative residual effect that would be an important consideration at a regional or county level.
Minor Adverse	Negative residual effect that would be a relevant consideration in a local context.
Negligible	Residual effect that is nil or imperceptible.
Minor Beneficial	Positive residual effect that would be a relevant consideration in a local context.
Moderate Beneficial	Positive residual effect that would be an important consideration at a regional or county level.
Major Beneficial	Positive residual effect that would be an important consideration at a national level.

- 7.29 Cumulative impacts, which can arise where the construction or operation of a development will increase the impact arising from the proposed scheme, will also be assessed.

Proposed Mitigation Measures

- 7.30 Mitigation measures will be proposed if the impact assessment process identifies potential significant effects arising from the proposed scheme.
- 7.31 Mitigation measures to avoid or reduce scheme impacts can be embedded within the design; for example, the avoidance of known heritage assets will be a consideration during the design of the underground cable alignment, and the siting of the SEC and cable jointing building. The emerging design will also take into account the setting of heritage assets and will seek to avoid impacts to views of historic and archaeological significance.
- 7.32 Avoidance of impact is the primary aim; however, if an impact is unavoidable and could potentially result in a significant effect, a programme of archaeological recording and reporting could be designed in consultation with South Yorkshire Archaeology Service and the National Park's cultural heritage team, and carried out in accordance with an approved Written Scheme of Investigation.

Issues to be Scoped Out

- 7.33 There are no cultural heritage issues to be scoped out of the assessment at this stage.

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8 Water Resources

Introduction

- 8.1 The Water Resources chapter of the ES will address the potential effects on water quality and water resources that may arise during the construction, operation and decommissioning of the proposed scheme, including discharges, dewatering of excavations, surface runoff of silts and potential for contamination of the local water environment. Effects on hydrogeology will be covered in greater detail within **Chapter 9** (Geology, Soils and Contaminated Land) of this Scoping Report. This section will also address flood risk, hydromorphological risk and consider implications of the EU Water Framework Directive (WFD).
- 8.2 The scoping of water quality and water resources risks has been undertaken in line with the guidance set out in the following documents:
- Environmental Impact Assessment (EIA): A handbook for scoping projects (Environment Agency, 2002);
 - Web-based Transport Analysis Guidance (WebTAG specifically 'Impacts on the Water Environment' TAG unit A3 (Department for Transport, 2015);
 - Groundwater Protection: Policy and Practice (GP3) (Environment Agency, 2013);
 - Overarching National Policy Statement for Energy (EN-1), Planning for new energy infrastructure (Department for Energy and Climate Change, 2011); and
 - National Planning Policy Framework (NPPF) (Department for Communities and Local Government (DCLG), 2012) and accompanying Planning Practice Guidance (DCLG, 2016).
- 8.3 Comments have been provided by the Environment Agency to inform this Scoping Report. Comments received from other stakeholders have been taken into account where relevant to the water environment.

Legislation and Policy

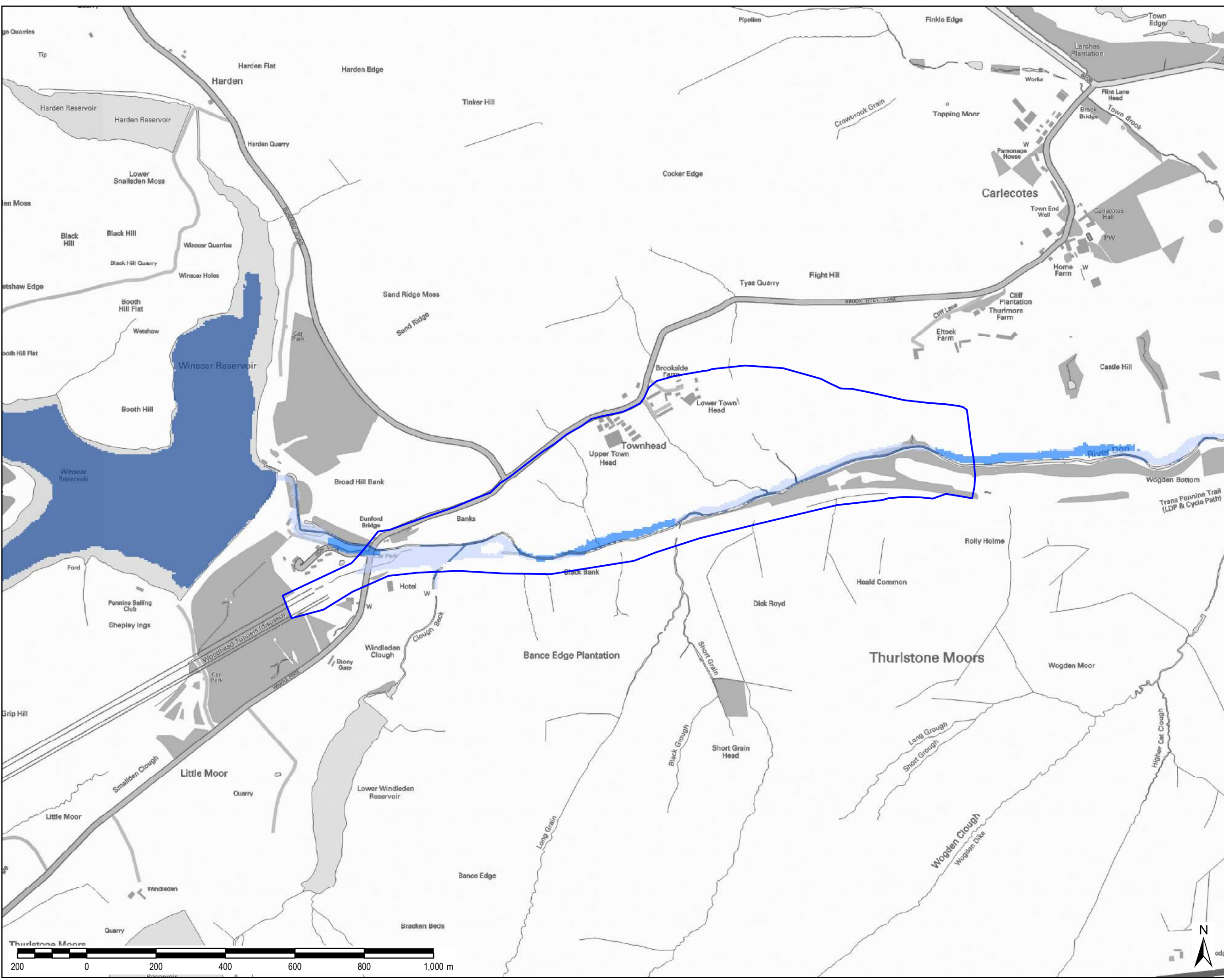
- 8.4 Legislation relevant to control and protection of water resources and provision of flood risk management comprises:
- The EU Water Framework Directive (WFD) (2000/60/EC);
 - The EU Floods Directive (2007/60/EC);
 - The Water Resources Act 1991 (as amended);
 - The Water Act 2003 and 2014;
 - The Environment Act 1995;
 - The Environmental Protection Act 1990;
 - The Land Drainage Act 1991; and
 - The Flood and Water Management Act 2010.

- 8.5 A number of specific regulations have been made to implement the statutory European and national legislation into law set out above. These regulations include:
- The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003;
 - The Flood Risk Regulations 2009;
 - The Anti-Pollution Works Regulations 1999;
 - The Control of Pollution (Oil Storage) (England) Regulations 2001;
 - The Groundwater Regulations (England and Wales) 2009;
 - The Environmental Damage Regulations 2009;
 - The Water Resources Act (Amendment) (England and Wales) Regulations 2009;
 - The Environmental Permitting (England and Wales) Regulations 2010; and
 - Water Supply (Water Quality) Regulations 2010.
- 8.6 In terms of planning policy, The National Planning Policy Framework (NPPF) outlines the Government's national planning policies for England, and is supported by the National Planning Policy Guidance (NPPG).

Baseline Environment

- 8.7 The route of 4ZO crosses the River Don (an ordinary watercourse) three times within the search area for permanent development (search area). **Figure 8.1** shows the search area in relation to the Environment Agency's 'risk of flooding from rivers and the sea' dataset to provide a context for this chapter (Environment Agency, 2016a). It should be noted that, whilst the flood extents are broadly the same, the alternative 'flood map for planning' (Environment Agency, 2016b) (discussed further below) will dictate the formal flood zones and inform the requirement for Flood Risk Assessment (FRA) from the Local Planning Authority.
- 8.8 Upstream, east of the search area boundary is the Winscar Reservoir. The smaller, Lower Windleden Reservoir, is located south east of the search area boundary, also feeding into the River Don. A number of smaller watercourses and drains flow down into the River Don, some of which are named including Long Crain, Long Crough, Wogden Dike and Lower Cat Clough in the southern part of the study area and the Town Brook which flows from the north into the River Don.
- 8.9 The OHL route crosses areas of Flood Zone 3 three times where it crosses the River Don, as shown on the Environment Agency's Flood Map - Flood Map for Planning (River and Sea) Maps) (Environment Agency, 2016b). In accordance with the NPPF paragraphs 100-103 (DCLG, 2012) and the accompanying Planning Practice Guidance (DCLG, 2016), all elements of the proposed scheme should be located outside areas of floodplain wherever possible. However, where it is a necessity, any proposed permanent works within the floodplain must be approved by the Local Planning Authority in consultation with the Environment Agency alongside any suitable required mitigation. During construction, attention should be given to the potential impact that mobile temporary works may have on important flow routes such that any adverse effects can be assessed.
- 8.10 Most of the cable route will fall into an area mapped at risk of reservoir flooding associated with the Winscar, Windleden Lower and Windleden Upper Reservoirs (Environment Agency, 2016c). Whilst reservoir flooding is extremely unlikely to happen, it is recommended that emergency evacuation routes are considered as part of construction phase risk assessment.

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KEY

- Search Area for Permanent Development

Risk of Flooding from Rivers and Sea

- High (chance of flooding greater than 1 in 30)
- Medium (chance of flooding between 1 in 30 and 1 in 100)
- Low (chance of flooding between 1 in 100 and 1 in 1000)
- Very Low (chance of flooding less than 1 in 1000)

Source: Environment Agency 'Risk of flooding from rivers and the sea' data. Available from: <http://www.geostore.com/environment-agency>

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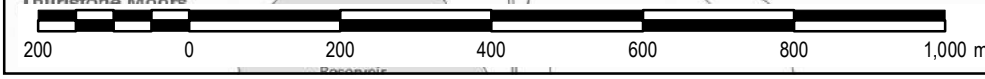
Purpose of Issue	FINAL
Client	NATIONAL GRID
Project Title	VISUAL IMPACT PROVISION

Drawing Title
**PEAK DISTRICT VIP
 RISK OF FLOODING MAP**

Drawn GM	Checked AH	Approved HM	Date 09/05/2016
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- 8.11 The search area extends across areas subject to the Humber District River Basin Management Plan (RBMP) (Environment Agency, 2009). The RBMP provides a classification of the current status of each water body in the district as required under the Water Framework Directive (WFD). The River Don is currently classified as Moderate status in the 2009 RBMP. At the time of compiling this scoping chapter, the Cycle 2 2015 RBMPs had not been published, however, recent data published on the Environment Agency's Catchment Data Explorer (Environment Agency, 2016d) identifies that the River Don remains at Moderate Status. For the Environmental Statement, the confirmed Cycle 2 Status will be included from the published 2015 RBMP.
- 8.12 A review of the British Geological Survey (BGS) 'Geology of Britain' viewer (BGS website) indicates that the most of the area comprises bedrock of the Millstone Grit group including the Rossendale Formation (Mudstone and Siltstone), Marsden formation (Mudstone and Siltstone) and Huddersfield White Rock (Sandstone). There are superficial alluvium deposits around River Don and superficial peat deposits around the drain network on the moorland south of River Don. Local geology is explained in more detail within **Chapter 9: Geology, Soils and Contaminated Land** of this Scoping Report.
- 8.13 A review of the British Geological Survey (BGS) 'Geology of Britain' viewer (BGS website) indicates that the most of the area comprises Millstone Grit of the Rossendale Formation (Mudstone and Siltstone), Marsden formation (Mudstone and Siltstone) and Huddersfield White Rock (Sandstone). There are superficial alluvium deposits around River Don and superficial peat deposits around the drain network on the moorland south of River Don.
- 8.14 The Aquifer Designation maps, which are available on the Environment Agency's website (Environment Agency 2015), indicate that most of the search area overlies a 'Secondary A Bedrock' aquifer. This aquifer designation is defined by the Environment Agency as:
- 'Secondary A Aquifers: These include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage. Secondary A aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.'*
- 8.15 A review of licensed water abstractions as recorded by the Environment Agency (Environment Agency, 2016e) has not identified any licensed abstractions within the search area although there is a large surface water abstraction from the Winscar Reservoir, just west of the area and medium surface water and groundwater abstractions are recorded approximately 0.5km north of the search area. There may be unlicensed private water supplies that are not recorded on the Environment Agency public registers; details of these may be held by the Local Authority, who would be consulted as part of any environmental assessment process.
- 8.16 The Environment Agency use Source Protection Zones (SPZ) to apply a level of protection to drinking water sources. SPZs are used to identify those areas close to drinking water sources where the risk associated with groundwater contamination is greatest and are an important tool for identifying highly sensitive groundwater areas. These zones are used in conjunction with groundwater protection policy to set up pollution prevention measures. No SPZs have been identified within the search area (Environment Agency, 2016f).
- 8.17 There are no statutory designated sites within the search area, however approximately 300m west lies South Pennine Moors SAC, Peak District Moors (South Pennine Moors Phase 1) SPA and Dark Peak SSSI. Hydrological links to these sites from the proposed scheme have not been highlighted as a particular concern based on the information available at this stage.

Potential Impacts

- 8.18 It is anticipated that impacts from decommissioning works of the proposed scheme will be no greater than those associated with the construction works. As such, the assessment of impacts generated by construction works will be applicable to both the construction and decommissioning phases of the proposed scheme. Any reference in the following text to 'construction' should therefore also be taken to mean decommissioning.
- 8.19 Based on the proximity of hydrological receptors and flood risk sources, the scoping process has identified a number of impacts that have the potential to lead to significant effects in relation to water quality, flood risk and hydromorphology.
- 8.20 The following potential impacts, which might arise during the construction phase are scoped into the assessment:
- Impact on surface water and groundwater quality from ground disturbance due to construction vehicle movements, activities within temporary construction compounds and excavation activities, and storage of potentially damaging materials and substances, leading to potential WFD status effects for waterbodies;
 - Impact on surface water quality from the construction of temporary access tracks, with the potential to cause minor erosion of soils along the route. During heavy rainfall soil material may be washed into watercourses by surface water runoff;
 - Impact on surface water or groundwater quality that could result from leaks from the installation of fluid filled cables (pending confirmation of cable types to be used)
 - Impact on groundwater quality through encountering the water table whilst excavating trenches; providing a direct pathway for pollutants;
 - The use of vehicles for construction and access also poses the risk of spillage of contaminants, such as oil and hydraulic fluid, potentially impacting on surface water and groundwater quality;
 - Impact on the hydrology and flow conveyance of watercourses due to temporary bridge crossings (associated with access), which might increase the risk of blockage or constriction to flows; and
 - The use of temporary construction compounds and access tracks have the potential to increase surface water runoff and result in increased flood risk.
- 8.21 The following potential operational impacts are scoped into the assessment:
- Impact on flood risk both to the proposed scheme and elsewhere due to the potential for underground cabling routes to interrupt groundwater flow pathways and the potential for construction of a SEC or cable jointing building to increase localised surface water runoff or fluvial flood risk if located within Flood Zone 2 or 3.
 - Impact on water quality through potential interaction with the water table whilst carrying out maintenance works to underground cabling.

Proposed Assessment Methodology

- 8.22 The assessment methodology will be agreed through consultation with the Environment Agency, the Peak District National Park Authority and Barnsley Metropolitan Borough Council.

- 8.23 The identification of potential effects to flood risk and hydrology will be undertaken using the development of a conceptual Source-Pathway-Receptor model (hydrogeology is scoped in further detail in **Chapter 9: Geology, soils and contaminated land** of this Scoping Report). The model will identify the potential sources or ‘causes’ of impact as well as the receptors that could potentially be affected (e.g. surface and ground water resources).
- 8.24 The presence of a potential impact source and a potential receptor does not automatically infer that an impact will occur as there needs to be an impact pathway or ‘mechanism’ via which the source can affect the receptor.
- 8.25 An assessment of the significance of effect will be undertaken using the methodology provided in the WebTAG; specifically the Water Environment Sub-Objective within TAG Unit A3 (DfT, 2015). The methodology set out in this WebTAG Unit provides an appraisal framework for taking the outputs of the environmental assessment process and analysing the key information of relevance to the water environment. The guidance provides a method by which the significance of a potential effect can be appraised consistently by decision makers. It is based on guidance prepared by the Environment Agency and builds on the water assessment methodology in the Design Manual for Roads and Bridges (DMRB) 11:3:10 (Highways Agency, 2009).
- 8.26 The methodology enables an assessment of the significance of a potential effect by firstly considering how important or how sensitive the receptor is and secondly, by considering the likely magnitude or extent of the impact on the receptor. By combining these two elements, the significance of the potential effect can be derived. If significant adverse effects are identified, mitigation measures will be proposed to prevent, reduce or where possible offset them.
- 8.27 It is anticipated that a Flood Risk Assessment would be undertaken to determine any flood risks to or from the proposed scheme, and any mitigation which may be required. The assessment would be compliant with the NPPF (DCLG, 2012) and Planning Policy guidance (DCLG, 2016).
- 8.28 If potential impacts are identified that could lead to the deterioration of a water body from its current status, or prevent a water body from achieving ‘Good Status’ (or potential) in the future in relation to hydro-morphology or water quality, it is likely that a separate Water Framework Directive Assessment (WFDa) would be required. This would be confirmed in agreement with the Environment Agency as regulatory body.
- 8.29 The FRA (and WFDa if required) would be submitted as a technical appendix to the ES. They would be referred to in the ES Water Resources chapter to determine the significance of any source of flooding on the proposed scheme and whether the scheme has potential to increase flood risk in the area or impact the ecological status of waterbodies. Where potential impacts are identified, the significance of effect will be derived based upon the predicted magnitude of change and the sensitivity (or vulnerability) of the affected receptors.

Proposed Mitigation Measures

- 8.30 The majority of the potential effects of the proposed scheme are associated with the construction and decommissioning phases. Surface water and groundwater quality risks could potentially be mitigated during the construction and decommissioning phases by measures including:
- Using an appropriate geotextile in the immediate vicinity of watercourse crossings to minimise damage to the surrounding ground and vegetation and minimise erosion;

- Monitoring of groundwater levels prior to construction, use of infiltration control measures, and implementing a spill control and response plan;
- Implementing regular maintenance of machinery and vehicles to reduce the possibility of pollutant leakages;
- Disposing of waste material in accordance with relevant waste management plans and waste disposal regulations to prevent pollution; and
- Restoring the areas impacted by temporary access to their former state once the construction is complete.

8.31 Potential increases in flood risk could potentially be mitigated by:

- Careful siting of the SEC and cable jointing building;
- Ensuring that any construction compounds and storage areas are situated outside of recognised Flood Zones or other identified flood risk areas;
- Ensuring that temporary construction access routes and watercourse crossings are constructed with consideration of potential effects on local flows; and
- Undertaking construction activities outside of the winter period, where practicable

Issues to be Scoped Out

8.32 Based on the proximity of hydrological receptors and flood risk sources, no potential impacts have been scoped out of having the potential to lead to significant effects on water resources at this stage.

9 Geology, Soils and Contaminated Land

Introduction

- 9.1 The search area for permanent development (the 'search area') is broadly aligned with the existing OHL Section 4ZO, which runs eastwards from a sealing end compound (SEC) near to the eastern entrance of the Woodhead Tunnel at Dunford Bridge (approximate NGR SE155023) and runs down the Upper Don Valley. The existing OHL crosses the National Park boundary to the east and then continues north-east parallel with and including the Upper Don River and the Trans-Pennine Trail/the former railway (south of the hamlet of Townhead, towards Castle Hill (approximate NGR SE178027)). The existing section of OHL proposed for undergrounding is approximately 1.8km in length.
- 9.2 The Geology, Soils and Contaminated Land chapter of the ES will address the issues relating to existing geo-environmental conditions for the vicinity of the proposed scheme, including geology, soils and contaminated land, and ensure that suitable and safe conditions are achieved for the proposed end use. A range of potential effects associated with the construction, operation and decommissioning phases of the proposed scheme will be considered, particularly concerning geotechnical conditions and contamination. Should significant adverse impacts be identified, suitable mitigation measures will be proposed.
- 9.3 The data and information within this chapter has been sourced from the British Geological Society (BGS), including the BGS GeoIndex (BGS, 2016), the Coal Authority (Coal Authority Interactive Map viewer), the Environment Agency (What's in your Backyard online viewer), the UK Soil Observatory (UKSO mapping) and the Multi-Agency Geographic Information for the Countryside (MAGIC) interactive natural environment map viewer website (MAGIC, 2016).

Legislation and Policy

- 9.4 Potential redevelopment on areas of brownfield land must take into account the regulatory context of the work, provide information that it is fit for purpose, and be in accordance with good practice guidance. An environmental assessment of the condition of the search area must not only consider the potential receptors of human health and controlled waters, but also include a review of the relevant legislation and planning policy that applies to the search area and its immediate environs.

National Legislation – Land Contamination

- 9.5 The key legislative drivers for dealing with risks to human health and the environment from historical land contamination include:
- Part 2A of the Environmental Protection Act 1990 (EPA) (the Contaminated Land Regime);
 - The Environment Act, 1995;
 - The Water Resources Act, 1991 (as amended);
 - The Water Act 2003 and 2014; and
 - The Town and Country Planning Act, 1990 and The Building Act, 1984.

- 9.6 The Acts of Parliament are implemented by specific regulations that apply to the regulation and assessment of land contamination related issues. These regulations include, but are not limited to:
- The Contaminated Land (England) Regulations, 2006 and The Contaminated Land (England) (Amendment) Regulations, 2012;
 - The Environmental Damage (Prevention and Remediation) Regulations, 2009;
 - The Environmental Permitting (England and Wales) Regulations, 2010;
 - The Anti-Pollution Works Regulations, 1999;
 - EC Water Framework Directive (WFD) (2000/60/EC), implemented in river basin districts within England and Wales through the Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 (SI2003/3242);
 - The Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009;
 - The Water Resources (Control of Pollution) (Oil Storage) (Wales) Regulations 2016 (coming into Force 15/03/16); and
 - The Building Regulations, 2000.
- 9.7 Planning related policies include the National Planning Policy Framework (NPPF) and associated National Planning Policy Guidance (NPPG); the Barnsley Metropolitan Borough Council Local Development Framework Core Strategy (2011) and saved policies from the Barnsley Unitary Development Plan (2000) (a Local Plan intended to replace the Core Strategy and Unitary Development Plan is currently under consultation) and associated guidance documents; and the Peak District National Park Authority Local Development Framework Core Strategy Development Plan Document (2011).

Other Relevant Policy and Guidance

- 9.8 The Part 2A principles of risk-based assessment and suitability for use have been widely adopted for the management of land contamination under other UK regulatory regimes. This approach has been codified by Environment Agency / DEFRA Contaminated Land Report 11, Model Procedures for the Management of Land Contamination (CLR11) (DEFRA and Environment Agency, 2004); the Environment Agency's Guiding Principles for Land Contamination (GPLC) (Environment Agency, 2010); and the joint National House-Building Council (NHBC) / Environment Agency / Chartered Institute of Environmental Health Guidance (CIEHG) for the safe development of housing on land affected by contamination (Environment Agency *et al.*, 2008).
- 9.9 Other relevant policy and guidance include: the Environment Agency's Guiding Principles for Land Contamination (Environment Agency, 2010); Groundwater Protection: Principles and Practice (GP3) (Environment Agency, 2013); and relevant Pollution Prevention Guidance Notes; Construction Industry Research and Information Association (CIRIA) Guidance documents C532 'Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors' (CIRA, 2001) and C665 'Assessing Risks Posed by Hazardous Ground Gases to Buildings' (CIRA, 2007).

Baseline Environment

Solid (Bedrock) Geology

- 9.10 The following information has been obtained from the BGS mapping (BGS, 2012).
- 9.11 The bedrock underlying the majority of the search area is recorded as strata belonging to the Marsden Formation of the Marsdenian Substage of the Carboniferous Millstone

Grit Group. The Marsden Formation generally comprises fine to very coarse-grained and pebbly feldspathic sandstones, interbedded with grey siltstone and mudstone, and subordinate marine black shales, thin coals and seatearths.

- 9.12 Discrete bands of Huddersfield White Rock have been identified, which is described as a medium to coarse-grained, massive to flaggy, cross-bedded, micaceous sandstone.
- 9.13 Bedrock underlying areas to the south of the search area is recorded as Guiseley Grit. This is typically recorded as a coarse-grained, massively bedded sandstone, somewhat finer and flaggy in its lower part.
- 9.14 Beyond the eastern end of the search area, the bedrock progresses to the Rough Rock of the Rossendale Formation, comprising coarse-grained cross-bedded feldspathic sandstone.
- 9.15 The general area is heavily faulted and the north to south trending Mickledean Fault crosses the search area just east of Townhead; with the Hepworth-Ewden Fault to the east of the search area at the boundary of the Marsden Formation and the Rough Rock. The down-throw of both faults is to the east. A north-east to south-west trending fault runs across the search area from Townhead to just south of Dunford Bridge.

Drift (Superficial) Geology

- 9.16 The following information has been obtained from the BGS Geindex.
- 9.17 The BGS Geindex records sparse superficial deposits over much of the search area. However, superficial deposits in the vicinity of the search area are recorded as peat deposits of two main lithologies: 'brushwood' (freshwater) peat and 'phragmites' (brackish water) peat; may be an organic-rich clay; humic deposits - accumulation of wet, dark brown, partially decomposed vegetation.
- 9.18 Alluvium is indicated to be present along the base of the river valley (the Upper Don Valley), this is normally soft to firm consolidated, compressible silty clay, but can contain layers of silt, sand, peat and basal gravel. A stronger, desiccated surface zone may be present. An alluvial fan deposit is shown at the base of Thurrock Moors, on the southern side of the River Don and on the old railway/Trans Pennine Trail alignment.

Soils

- 9.19 The following information has been obtained from the UK Soil Observatory's (UKSO) online maps.
- 9.20 The majority of the search area extends over slightly acidic to acidic clayey and sandy, loamy upland soils, potentially with a wet peaty surface. The soils in the base of the river valley may be relatively deep, with the ground shown as marshy on the Ordnance Survey mapping (Peak District Dark Peak Area, Outdoor Leisure Map 1, 1:25,000), though it is expected that the soils on the hillsides will be relatively shallow and potentially formed by solifluction and/or hillwash and soil creep.
- 9.21 It is understood that the railway corridor alignment will most likely be underlain by extensive areas of made ground, including limestone railway ballast that was reportedly dumped near Wogden Foot after the closure of the line. The presence of made ground along the railway alignment can also be surmised from the OS mapping, which shows distinct and extensive terracing along the historical railway route, extending from the base of Thurrock Moors, north to the southern banks of the River Don and creating a steep bank to the river level. Additionally there are indications of end tipping of materials to the north of the river, just south of Upper Town Head.
- 9.22 With the exception of the possible end tipping noted above, there appear to be limited indications of made ground in the farmland to the north of the river.

Peat

- 9.23 Areas of peat have the potential to contain highly compressible organic soil. In addition, they also have the potential to contain significant amounts of water which may require additional construction land take due to poor cohesion of the deposits and consequent ground stability impacts. As well as being a consideration in terms of construction, peatland habitats are important as a nature conservation resource and in wider respects in terms of their importance relating to carbon storage and sequestration. Natural England is currently working with relevant stakeholders to reinstate upland peat environments. Activities that further drain the peat deposits or otherwise damage upland peat environments are likely to require careful assessment and regulatory / stakeholder consultation.
- 9.24 Peat is of particular importance when considering siting of any substation, SECs, underground infrastructure and pylon foundations, and the proposed scheme will be developed to avoid, where possible, construction within any identified areas of peat.
- 9.25 Peat deposits have not been recorded within the search area; however, peat deposits are recorded approximately 700m south and the marshy nature of sections of the search area may include areas of peat.

Groundwater and Surface Water

- 9.26 The Millstone Grit Group bedrock beneath the whole of the search area and surrounding areas is recorded by the Environment Agency as a Secondary A Aquifer.
- 9.27 There are a number of groundwater and surface water abstractions in the vicinity, for uses including potable (domestic and public water supply) and industrial supply. There are no Source Protection Zones indicated by the Environment Agency. There may be unlicensed private water supplies that are not recorded on the Environment Agency public registers; details of these may be held by the Local Authority, who would be consulted as part of any environmental assessment process.
- 9.28 The alluvium along the river valley is also recorded as a superficial Secondary A Aquifer.
- 9.29 The River Don runs adjacent to and beneath the whole of the existing OHL route alignment, which runs along the Upper Don Valley, formed by Thurlstone Moors and Tinker Hill. There are marshy areas along the length of and associated with the alignment of the river and a number of streams and springs are shown on the OS mapping, flowing into the river from both the north and south. This indicates the presence of relatively shallow groundwater.

Contamination

- 9.30 A search of the Environment Agency website has recorded significant pollution incidents to air and water circa 1km to the north east of the Site, at Crow Edge. These incidents relate to the discharge of contaminated water and atmospheric pollutants during an incident in June 2014 and are unlikely to have impacted the study area as they are downstream/hydraulic gradient.
- 9.31 Due to the proposed schemes location within/adjacent to a National Park and the current undeveloped greenfield use of much of the northern section of the search area, the potential for significant contamination is considered low.
- 9.32 However, one proposed route option is along the alignment of the Trans Pennine Trail which is a former railway line. OS 1:25,000 mapping and online aerial photographic coverage indicates extensive areas of made ground along the former rail corridor (south of and parallel to the River Don). The constituents of this made ground are unknown, but are reported to contain limestone railway ballast in the vicinity of Wogden Foot and may also include contamination associated with the historical operations of the railway.

- 9.33 Based on the records held by the Environment Agency, no current or historical landfill sites are recorded within the Site.

Preliminary Ground Stability Review

- 9.34 Excavations and trenches may become unstable due to groundwater ingress if the groundwater level is high.

Mineral Exploitation Sites

- 9.35 BGS Geindex records no historical mineral exploitation activity within the search area.
- 9.36 There are a number of coal seams outcropping in the areas surrounding the search area, though none are shown in the search area itself. The closest appears to be beyond the far eastern end of the search area, at the northern edge of the Rough Rock bedrock formation. This is the western boundary of the Pennine Lower Coal Measures, which is indicated as a Secondary Opencast Coal Resource and also shown as a potential fireclay and brick clay resource. The Coal Authority indicates recorded mine entries and adits in the vicinity of Soughley.

Designated Sites for Geological Protection

- 9.37 The search area lies within the Peak District National Park. There are no sites designated for geological protection within the Site. Dark Peak Site of Special Scientific Interest (SSSI) is located to the west and south of the Site, the SSSI citation includes a number of sites of special geological interest (circa 1km from the study area at its closest).

Potential Impacts

- 9.38 The potential impacts of the proposed scheme on geology and soils, and from contaminated land, will largely occur during the construction and decommissioning phase and will be temporary and of short duration. Potential issues to be addressed as part of the ongoing assessment include:
- Disturbance of underlying geology;
 - Presence of potential geo-engineering hazards, as presented in **Table 9.1** below;
 - Disturbance of, and damage to, soils, including peat soils if present;
 - The potential presence of mineral reserves including the potential for their sterilisation as a result of the proposed scheme and potential for ground stability impacts from historical mineral workings;
 - Possible shallow bedrock / outcropping in areas of proposed below ground works;
 - Possible presence and mobilisation of localised areas of contaminated ground that may have resulted from historical uses, including the presence of made ground, or be occurring currently;
 - Presence of extensive areas of made ground along the alignment of the former railway and potential for historical contamination from the railway operations;
 - Potential impacts to groundwater and surface water resources (including ecological receptors which may be present) from construction and operational activities (potential impacts to water receptors will be discussed in detail in Chapter 8. Water Resources);
 - Potential for shallow groundwater to impact on construction works including excavations intercepting spring lines at geological boundaries and within marshy areas; and

- Development of appropriate management methods to protect site neighbours, the environment and site workers during construction and decommissioning works in terms of health and safety and pollution prevention.

Table 9.1: Potential geo-engineering hazards

Hazard	Comment
Unforeseen Ground Conditions	Soft/loose ground. Temporary works and settlement issues.
Soft ground deposits.	Pockets of peat may be present and also soft ground deposits along the river valley. Foundation, bearing and settlement issues.
Shallow / deep mine workings	Potential for ground instability. Take least risk route in these areas once detailed mining information is obtained.
Shallow bedrock.	Possible hard/difficult rock excavation. Implications for direct burial and for tunnelling.
Groundwater / surface water	Shallow groundwater including strong spring flows near to local watercourses. Excavation stability, temporary works, buoyancy and flotation issues, potential contamination of ground and surface water resources.
Contaminated Land	Contamination associated with development of the area (farming, residential, roads) may be present. Extensive made ground and potential contamination along the alignment of the former railway. Re-use of spoil and waste disposal issues.

Proposed Assessment Methodology

- 9.39 An assessment of the potential impacts of the project on the underlying geology and soils, and from potential contaminated land, will be undertaken. This assessment will be undertaken largely by means of a site walkover and desk study, utilising information from published mapping and preliminary assessment to identify geo-hazards such as superficial deposits and bedrock geology, former mining, made ground, former surface mineral sites (which may contain non-engineered fill, wastes, etc.), peat, compressible ground, running (sand) conditions, shrink swell clays and landslip.
- 9.40 The following activities will be undertaken as part of the ongoing assessment process:
- Liaison with Barnsley Metropolitan Borough Council, High Peak Borough Council, Derbyshire County Council, Peak District National Park Authority, Natural England, the Environment Agency, and other relevant organisations (British Geological Survey, etc.) to obtain available information on the proposed draft route in respect of contamination and ground conditions;
 - A check will be made of minerals plans, and liaison with Derbyshire County Council and Barnsley Metropolitan Borough Councils' Minerals Teams, to ensure the accurate identification of mineral reserves. (Information from this assessment will also be used within the socio-economic assessment);

- Combine the above information with historical maps, detailed site walkovers and reviews of environmental data bases, and further desk-based information (maps, reports, etc.) to assess sensitivity and risk, and
- Liaison with DEFRA with regard to Soil Classifications.

Desk Study

- 9.41 A review will be undertaken of topographical, geological and soil maps. It will also draw from information obtained from other studies, such as the ecological, cultural heritage and hydrological/hydrogeological assessments. Historical maps will be reviewed in order to assess the potential for contamination across the Site.

Initial Walkover

- 9.42 Site walkovers will be undertaken at the search area and at locations of temporary access tracks and other proposed working areas. These will be undertaken in conjunction with other specialist chapters, and will verify the desk study information and record any natural or man-made topographical, hydrological and hydrogeological features, type of vegetation cover and any other relevant features.

Peat

- 9.43 Although no peat is recorded within the search area, on the published BGS map viewer, peat deposits are recorded within the vicinity. Therefore, the presence of peat cannot be discounted. Should peat be identified within the search area then further assessment of the potential effects on peat will be undertaken with reference to available guidance and methodology for the assessment of the impacts of developments on peatlands. This will be undertaken to ensure that the proposed scheme is designed to avoid and minimise, as far as practicable, the quantity of peat required to be excavated and that these quantities will be appropriately managed.

Further Site Investigation (Intrusive Works)

- 9.44 Intrusive site investigations will be undertaken at selected locations prior to commencement of construction activities, in order to obtain geotechnical and geo-environmental information in support of engineering and construction feasibility studies. This information will be reviewed to inform the assessment. In addition, there are areas of potential contamination which, dependent upon the chosen construction locations, may require specific site investigation and assessment works.

Proposed Mitigation Measures

- 9.45 The majority of the potential effects of the proposed scheme relate to the disturbance of soils, made ground and geological deposits, and are associated with the construction and decommissioning phases. Mitigation measures will be proposed if the impact assessment process identifies potentially significant impacts arising from the proposed scheme.
- 9.46 Mitigation measures to avoid or reduce scheme impacts will be embedded within the design.

Issues to be Scoped Out

- 9.47 No potential impacts have been scoped out that have potential to lead to significant effects at this stage.

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10 Agriculture and Land Use

Introduction

- 10.1 This chapter of the Scoping Report outlines the proposed scope of impacts of the proposed scheme on agriculture and land use that will be assessed as part of the environmental assessment process. This includes consideration of potential for land sterilisation and land take, as well as the potential for impacts on soils, biosecurity and on the ability of farmers and landowners to achieve their commitments made under the agri-environmental schemes. This chapter also provides an outline of the baseline environment, the proposed assessment methodology, as well as possible mitigation measures.
- 10.2 The assessment excludes potential impacts on biodiversity that are discussed in **Chapter 6** (Ecology) of this Scoping Report.

Legislation and Policy

- 10.3 Legislation which is relevant to Land Use and Agriculture principally comprises:
- The Countryside and Rights of Way (CRoW) Act 2000;
 - The Wildlife and Countryside Act 1981 (as amended);
 - National Planning Policy Framework (NPPF) (Department for Communities and Local Government (DCLG), 2012);
 - Peak District National Park Core Strategy Development Plan Document (Peak District National Park Authority, 2011);
 - Barnsley Metropolitan Borough Council (2000). Unitary Development Plan (Barnsley Metropolitan Borough Council, 2000);
 - Barnsley Local Development Framework Core Strategy (Barnsley Metropolitan Borough Council, 2011); and
 - Barnsley Local Plan Consultation Draft (Barnsley Metropolitan Borough Council, 2014).

Baseline Environment

Land Use

- 10.4 The majority of the search area for permanent development (the search area) comprises pastoral farmland, with scattered farm buildings to the north, off Brook Hill Lane. Along the southern boundary of the search area is the River Don, along with a line of woodland and moorland (Thurlstone Moor).
- 10.5 There are also a number of Public Rights of Way (PRoW) that dissect the search area, including the Trans Pennine Trail that is located along the southern boundary.
- 10.6 A small section of the search area, closest to the Woodhead Tunnel, is located within the Peak District National Park boundary. This section of the National Park is denoted as a 'Natural Zone' within the Core Strategy Development Plan Document (Peak District

National Park Authority, 2011) and restricts development, other than in exceptional circumstances. There are no applicable land allocations, as included in the Barnsley Core Strategy (Barnsley Metropolitan Borough Council, 2011), for the majority of the search area.

Soils

- 10.7 The majority of the search area is located on acid loamy and clayey soils. Land around the River Don and Thurlstone Moor, and east towards Dunford Bridge, are very acid loamy upland soils with a wet peaty surface.

Agricultural Land Classification

- 10.8 From an initial review of Agricultural Land Classification (ALC) map of Yorkshire and Humber Region (Natural England, 2010) (Scale 1:250 000), the majority of the search area is located on Grade 4 agricultural land, with land to the west, closest to Dunford Bridge, located on Grade 5 agricultural land. The Sealing End Compound (SEC) search area is fully located on Grade 4 agricultural land. Neither Grade 4 nor 5 agricultural land are classified as best and most versatile (BMV) agricultural land, according to Annex 2 of the National Planning Policy Framework (NPPF) (DCLG, 2012)³.

Agri-Environmental Schemes

- 10.9 From an initial review of MAGIC (Defra website) for Agri-Environmental Schemes, the majority of land, including the SEC search area consists of land denoted as being a part of an Entry Level Stewardship scheme. In addition, Thurlstone Moor to the south of the search area is denoted as being a part of an Entry Level Stewardship plus Higher Level Stewardship Scheme.

Potential Impacts

- 10.10 The assessment presented in the ES will consider the construction, operational and decommissioning effects of the proposed scheme on land use and agriculture.

Construction and Decommissioning

Land Take

- 10.11 Permanent loss of land associated with the new SEC search area would result in the loss of woodland, moor, or agricultural land area; however, this is not a loss of BMV land.
- 10.12 As the search area is not located on BMV land it is not proposed to assess the impact on temporary loss of the agricultural resource during the construction and decommission phase.

Agri-Environmental Schemes

- 10.13 Where the proposed scheme occurs on land subject to an Agri-Environmental Schemes (e.g. Countryside Stewardship (CS) and Environmental Stewardship) the proposed scheme may potentially result in temporary or permanent impacts on the ability of the farmer/landowner to achieve their commitments made under the Agri-Environmental Schemes, resulting in both loss of land areas or features, subject to the Agri-Environmental Scheme, as well as the landowner's/ farmer's payment for this. The impact will be dependent on each individual Agri-Environmental Scheme applicant's details.

³ The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. The best and most versatile (BMV) land is defined as Grades 1, 2 and 3a by policy guidance (see Annex 2 of NPPF). This is the land is the most flexible, productive and efficient in response to inputs and which can best deliver food and non food crops for future generations (Paragraph 26, Planning Practice Guidance (DCLG, 2014)) .

10.14 There are also secondary impacts on biodiversity, however these are not land use or agriculture impacts and, hence, are discussed in **Chapter 6** (Ecology).

Soils

10.15 During the construction and decommissioning phases there is the potential to impact on the quality of the soils, to include reduced biological activity, porosity and permeability, compaction, lack of workability, soil mixing, inverted profiles and poor drainage. This has the potential to come about due to poor storage of topsoil, use of heavy machinery, removal of vegetation, and severance of field drains.

Farming Practices

10.16 During the construction and decommissioning phase there could be temporary impacts on farming practices, including:

- Temporary loss of crop production / grazing areas within the working corridor and for contractor compounds/storage areas. This would be during construction and for short period following reinstatement;
- Temporary separation of livestock from water supplies;
- Disruption to daily farming practices, such as movement of livestock and agricultural machinery or harvesting efficiency;
- Temporary effects on agricultural accesses;
- Temporary removal of field boundaries; and
- Temporary disruption to field drainage and water supplies.

Biosecurity

10.17 The nature of a linear construction scheme across different farm holdings and fields can bring potential risks to biosecurity, including:

- Spread of plant and animal diseases, for example Bovine Tuberculosis;
- Spread of invasive and injurious weeds, for example ragwort, on wheels of construction and maintenance vehicles; and
- Potential for contamination of organically farmed land, either from contamination with non-organic adjacent farmland or the use of unauthorised chemicals such as pesticides, fertilisers or other non-organically approved compounds.

10.18 Risks to biosecurity have potential long term impacts to farm viability.

Operational

Impacts on Development Land

10.19 There will be potential for permanent impacts, for the lifetime of the proposed scheme, which could limit land use practices and development above the cable due to cable easement.

10.20 A cable easement would need to be maintained, and certain activities will be prohibited, including the placement of permanent or temporary buildings or structures, modifications to ground levels, crossing with heavy plant, tree planting etc. This is important to ensure the integrity of the cable.

Proposed Assessment Methodology

Baseline Data Collection

- 10.21 A qualitative desk-based survey will be undertaken, utilising information from the following sources:
- Survey of landowners/farmers affected by the proposed scheme (incl. farming type, farming practices, agri-environmental schemes etc...);
 - Multi-Agency Geographic Information for the Countryside (MAGIC) website (MAGIC, 2016) to ascertain information on Agri-Environmental Schemes;
 - Consultation with Natural England to ascertain information on agri-environmental schemes;
 - Planning allocations in the Barnsley Core Strategy (Barnsley Metropolitan Borough Council, 2011) and Peak District National Park Core Strategy Development Plan Document (Peak District National Park Authority, 2011);
 - Review of Barnsley Metropolitan Borough Council and Peak District National Park Authority Planning registers to identify relevant development proposals currently under consideration by the councils;
 - Review of National Infrastructure Planning registers to identify Nationally Significant Infrastructure Projects;
 - Published Agricultural Land Classification details for the area (1:250 000 scale) (Natural England, 2010);
 - Review of Land Information System Soilscales database (Cranfield Soil and AgriFood Institute – Soilscales Database); and
 - Ordnance Survey mapping and aerial photography to establish land use and settlement patterns.

Assessment Guidelines

- 10.22 There is no existing guidance directly applicable to the assessment of cable infrastructure on land use and agriculture; however, there are a number of other guidance documents which are of relevance. The following document have been used to inform the methodology:
- Design Manual for Roads and Bridges (DMRB), Volume 11, Section 2, Part 5: Assessment and Management of Environmental Effects (Highways England, 2008); and
 - DMRB, Volume 11, Section 3, Part 6: Land Use (Highways England, 2001).
- 10.23 In assessing the significance of potential effects of the proposed scheme two factors will be taken into account:
- The sensitivity of the receiving environment; and
 - The magnitude of the potential impact.

Sensitivity of Receptor

- 10.24 The sensitivity of the receptor takes into account the sensitivity or importance of land use and agriculture and the activities or functions it supports. Example criteria for describing the sensitivity are summarised in **Table 10.1**.

Table 10.1: Sensitivity of Receptor Criteria

Sensitivity of receptor	Description	Examples
High	Very high agricultural and land use value, quality or rarity on a national scale.	National land use allocations; Grade 1 Agricultural Land; Higher Tier Countryside Stewardship (CS)/ Higher Level Stewardship (HLS) land; Soils with a very low resilience to structural damage (e.g. clayey soil); Pastoral Farms.
Medium	High agricultural and land use value, quality or rarity on a national scale.	Regional land use allocations; Grade 2 and 3a Agricultural Land; Soils with a moderate resilience to structural damage (e.g. loamy soils); Mixed farms.
Low	Medium agricultural and land use value, quality or rarity on a regional scale.	Local land use allocations; Grade 3b Agricultural Land; Soils with a low resilience to structural damage (e.g. sandy soils); Organic arable farms.
Very Low	Low or negligible agricultural and land use value, quality or rarity on a local scale.	Grade 4 and 5 Agricultural Land; Individual planning applications; Capital Grants Countryside Stewardship (CS)/ Entry Level Stewardship (ELS) land; Other soil types (e.g. Made ground); Non-organic arable farms.

Magnitude of Impact

- 10.25 The magnitude of an impact considers the physical and geographical scale of the predicted change to baseline conditions resulting from a given potential impact and takes into account the duration of impact for example whether it is temporary or permanent, direct or indirect, as well as reversibility of the effect. Impacts can also be classified as adverse or beneficial. Criteria for describing the magnitude are described in **Table 10.2**.

Table 10.2: Magnitude of Impact Criteria

Magnitude of Impact	Description	Examples
High	Results in total loss or substantial change to key features or attributes of the resource, or its key characteristics, features or elements, such that post development character/composition will be fundamentally changed, affecting its integrity or viability.	Permanent, full displacement of intended land uses; Current farm practice is seriously affected and that impacts on farm profitability, and lead to viability issues or likely to have a major financial impact.
Medium	Results in partial loss or alteration to key features or attributes of the resource, or its key characteristics, features or elements, such that post development character/composition will be materially changed, affecting its integrity or viability.	Permanent, moderate displacement of intended land uses; Current farm practice is affected and that impacts on farm profitability, but unlikely to affect viability or likely to have a moderate financial impact.
Low	Results in a measurable, but not material change, to key features or attributes of the resource, or its key characteristics, features or elements, such that post development character/composition will be similar to the pre-development situation.	Permanent loss of peripheral land for intended land use or temporary loss of large-moderate area; Current farm practice is marginally affected, with small impacts on farm profitability, but unlikely to affect viability or only minor financial impact.
Very Low	Results in a little or no change to key features or attributes of the resource, or its key characteristics, features or elements, such that change is barely distinguishable.	Permanent loss of minor land, such that existing and intended land use can continue or temporary loss of minor area; No noticeable changes in farm practices, or no discernible financial loss as losses are compensated for.

Classification of Effects

- 10.26 A combination of the magnitude of impact under consideration and the sensitivity of the receptor determines the significance of effect. A classification of effects table is provided in **Table 10.3**.
- 10.27 The assessment method is largely qualitative and requires a degree of professional judgement to be applied, so may require deviation to what is shown in Tables 10.1 to 10.3 where necessary.
- 10.28 For the purposes of this assessment, effects are classified as significant when major or moderate. Minor and negligible effects are classified as not significant.

Table 10.3: Classification of Effects

Sensitivity of Receptor	Magnitude of Impact			
	High	Medium	Low	Very Low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very Low	Minor	Negligible	Negligible	Negligible

Basis of Assessment

Impacts on Development Land

- 10.29 This will identify land use allocations in planning policy as well as developments proposed by way of the submission of a planning application, permitted/with a resolution to grant permission or under construction (including Nationally Significant Infrastructure Projects). The level of allocation will determine the sensitivity of the land, while the magnitude will take regard to the degree of change the proposed scheme would have on future development outlined in the allocation/application.

Permanent Land Take

- 10.30 This will assess permanent land take in terms of quality (sensitivity of receptor) and future viability of individual farms (magnitude of impact). Sensitivity of the receptor will be assessed in terms of the Agricultural Land Classification (ALC) of the land. Magnitude of impact will be assessed in terms of the future viability of individual farms; for example, a high magnitude represents a serious effect on farm practice that impacts on farm profitability, and would lead to viability issues, while a very low magnitude represents no noticeable changes in farm practices, or no discernible financial loss as losses are compensated for. Consultation will need to be undertaken with landowners/farmers to ascertain the magnitude of impact.

Agri-Environmental Schemes

- 10.31 Details of Agri-Environmental Schemes that may be affected by the proposed scheme will be identified as part of the environmental assessment process, through review of available data from MAGIC and Natural England, as well as in consultation with landowners/farmers. The effect of the proposed scheme on these Agri-Environmental Schemes will be qualitatively assessed for each section of the proposed route, with sensitivity based on the quantity of schemes in the section of the proposed route, with areas of Higher Level Stewardship land and Higher Tier Countryside Stewardship land given greater sensitivity than Entry Level Stewardship land and Capital Grants Countryside Stewardship land. The magnitude of impact is based on degree of loss or change to key features or attributes of the Agri-Environmental Scheme and degree of financial impact on the farmer/landowner.

Soils

- 10.32 The effect of the proposed scheme on soils will be based on the workability of soils and their suitability for reinstatement. Dominant soil types along each section of the proposed route will be gained from the Landis Soilscales database, and supplemented by information obtained from discussion with the landowner/farmer. Sensitivity is based on the soil's resilience to structural damage when being handled, with clayey soils less resilient and more sensitive than sandy soils that are more resilient and therefore less

sensitive. Magnitude of impact will be based on the predicted degree of change to the soil.

Farming Practices

- 10.33 The effect of the proposed scheme on farming practices will be assessed through a qualitative assessment, principally in consultation with farmers, to ascertain how the construction and decommission phase will affect their farming practices, as it is recognised this may differ between farms.
- 10.34 Sensitivity of the receptor will be assessed in terms of the farming type for example pastoral, mixed, or arable; while the magnitude of impact will be assessed in terms of the future viability of individual farms; for example, a high magnitude represents a serious effect on farm practice that impacts on farm profitability, and would lead to viability issues, while a very low magnitude represents no noticeable changes in farm practices, or no discernible financial loss as losses are compensated for.

Biosecurity

- 10.35 Where the proposed scheme crosses multiple land holdings, the effect of the proposed scheme on biosecurity will be assessed. This will be based on the farming type (sensitivity) and the likely magnitude of impact based on how much of an effect a biosecurity breach will have on farm practices and the likely financial impact. Biosecurity will be assessed qualitatively across each section of the proposed route, largely through discussions with the landowner/farmer. Farm types most sensitive to biosecurity will be pastoral, followed by mixed farming and least sensitively arable farming. Organic farming of is also considered more sensitive than non-organic farming, and shall be included in the sensitivity.

Proposed Mitigation Measures

- 10.36 Detailed routeing and design will seek to minimise impacts and mitigate effects in the construction and decommissioning phases. Mitigation measures are also likely to include:
- DEFRA guidance 'Construction Code of Practice for the Sustainable Use of Soils on Construction Sites' (DEFRA, 2009) and MAFF guidance 'Good Practice Guide for Handling Soil' (MAFF, 2000);
 - Micro-siting of features of the proposed scheme, including for example cable route, compounds and access tracks across farmland land;
 - Micro-management during the construction and decommission phase to minimise impacts on farming practices;
 - Biosecurity mitigation measures such as wheel and shoe wash facilities;
 - Re-instatement of land following construction (e.g. hedges and fences replaced; field drains re-built or diverted);
 - Re-instatement of all areas subject to agri-environmental scheme agreements and if necessary implementation of a special management plan to regain the agri-environmental scheme status; and
 - Reasonable compensation for loss of agri-environmental scheme payments and loss of earnings.
- 10.37 National Grid will work with landowners and farmers on the implementation of the above mitigation, thereby reducing temporary impacts associated with the construction and decommission phase as far as possible.

Issues to be Scoped Out

10.38 It is proposed to scope out the following topics:

- Potential economic effects that the proposed scheme will have on individual landowners and farmers; and
- Temporary land take during the construction and decommissioning.

Economic Effects

10.39 Economic effects of the proposed scheme are dealt with in **Chapter 14** (Socio-Economics and Tourism) of this Scoping Report, and are therefore not replicated here. Furthermore, any financial consequences on individual landowners and farmers due to the proposed scheme will be temporary, as the land will be reinstated after the construction and decommissioning, moreover, farmers will be reasonably compensated for loss of earnings as a direct result of the proposed scheme.

Temporary Land Take

10.40 As the search area is not located on BMV land it is not proposed to assess the impact on temporary loss of the agricultural resource during the construction and decommission phase.

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11 Air Quality

Introduction

- 11.1 This chapter will establish the scope of the assessment of likely significant effects on local air quality during the construction and decommissioning phases of the proposed scheme. Potential effects on air quality from the operation of the proposed scheme have been scoped out (see the 'Issues to be Scoped Out' section at end of this chapter).
- 11.2 During the construction phase, there is the potential for particulate matter and oxides of nitrogen to be emitted by the activities being undertaken. During the operational phase there is limited potential for emissions of air pollutants to be generated by the proposed scheme. This section considers the likelihood for the proposed construction and decommissioning activities to generate emissions of sufficient magnitude to adversely affect sensitive receptors and identifies relevant technical assessment guidance.

Legislation and policy

National Legislation

- 11.3 Directive 2008/50/EC (Council of European Communities, 2008) is currently transcribed into UK legislation by the Air Quality Standards Regulations 2010 (H.M. Government, 2010), which came into force on 11th June 2010. These limit values are binding on the UK and have been set with the aim of avoiding, preventing or reducing harmful effects on human health and on the environment as a whole.

National Planning Policy

National Planning Policy Framework (2012)

- 11.4 The National Planning Policy Framework (NPPF) was published in March 2012 (Department of Communities and Local Government, 2012), paragraph 109 of which states:
- “The planning system should contribute to and enhance the natural and local environment by: preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability...”*
- 11.5 Annex 2 of the NPPF defines 'pollution' as:
- “Anything that affects the quality of land, air, water or soils, which might lead to an adverse impact on human health, the natural environment or general amenity. Pollution can arise from a range of emissions, including smoke, fumes, gases, dust, steam, odour, noise and light”.*
- 11.6 There are both national and local policies for the control of air pollution and local action plans for the management of local air quality within the BMBC area. The effect of the Proposed Development on the achievement of such policies and plans are matters that may be a material consideration by planning authorities when making decisions for individual planning applications. Paragraph 124 of the NPPF states:
- “Planning policies should sustain compliance with and contribute towards EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality from individual sites in*

local areas. Planning decisions should ensure that any new development in Air Quality Management Areas is consistent with the local air quality action plan.”

- 11.7 The National Planning Practice Guidance (NPPG) (Department of Communities and Local Government, 2014), provides a summary of the air quality issues set out in the NPPF and goes on to note that the assessment should include the following information:
- The existing air quality in the study area (existing baseline);
 - The future air quality without the development in place (future baseline); and
 - The future air quality with the development in place (with mitigation).
- 11.8 The guidance then advises that the application should proceed to decision with appropriate planning conditions or planning obligation, if the proposed development (including mitigation) would not lead to an unacceptable risk from air pollution, prevent sustained compliance with EU limit values or fail to comply with the requirements of the Habitats Regulations.

National Air Quality Strategy

- 11.9 The UK National Air Quality Strategy (Defra, 2000) was initially published in 2000, under the requirements of the Environment Act 1995 (H.M. Government, 1995). The most recent revision of the strategy (Defra, 2007) sets objective values for key pollutants as a tool to help Local Authorities manage local air quality improvements in accordance with the EU Air Quality Framework Directive. Some of these objective values have been laid out within the Air Quality (England) Regulations 2000 (H.M. Government, 2000) and later amendments (H.M. Government, 2002).
- 11.10 The air quality objective values referred to above have been set down in regulation for the purposes of local air quality management. Under the local air quality management regime BMBC has a duty to carry out regular assessments of air quality against the objective values and if it is unlikely that the objective values will be met in the given timescale, they must designate an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) with the aim of achieving the objective values. The boundary of an AQMA is set by the governing local authority to define the geographical area that is to be subject to the management measures to be set out in a subsequent action plan. Consequently it is not unusual for the boundary of an AQMA to include within it relevant locations where air quality is not at risk of exceeding an air quality objective. The UK’s national air quality objective values for the pollutants of relevance to this assessment are displayed in **Table 11.1**.

Table 11.1: Air Quality Objective Values for England

Pollutant	Averaging Period	Objective Value ($\mu\text{g}/\text{m}^3$)	Max Permitted Exceedances	Target Date
Nitrogen Dioxide (NO ₂)	Annual Mean	40	None	31/12/05
	Hourly Mean	200	18 times per year	31/12/05
Particulate Matter (PM ₁₀)	Annual Mean	40	None	31/12/04
	24-hour	50	35 times per year	31/12/04
Fine Particulate Matter (PM _{2.5})	Annual Mean	25	None	2020

Local Air Quality Management

- 11.11 Under the requirements of Part IV of the Environment Act 1995 (H.M. Government, 1995), Barnsley Metropolitan Borough Council (BMBC) has carried out a phased review and assessment of local air quality within the city (BMBC, 2015).
- 11.12 BMBC has declared six Air Quality Management Areas within their administrative area, the exceedance of the nitrogen dioxide objective value set out in Table 11.1. These AQMAs are located within Barnsley, and along the M1 motorway, in the east of the borough. These AQMAs are remote from the search area for permanent development and there is no potential for emissions to air from the proposed scheme to affect local air pollutant concentrations within the AQMAs.

Local Planning Policy

- 11.13 BMBC adopted their Core Strategy as part of their Local Plan in September 2011 (BMBC, 2011). The Core Strategy has several policies relating to air quality and pollution. These include:

“CSP 40 Pollution Control and Protection

Development will be expected to demonstrate that it is not likely to result, directly or indirectly, in an increase in air, surface water and groundwater, noise, smell, dust, vibration, light or other pollution which would unacceptably affect or cause a nuisance to the natural and built environment or to people.

We will not allow development of new housing or other environmentally sensitive development where existing air pollution, noise, smell, dust, vibration, light or other pollution levels are unacceptable and there is no reasonable prospect that these can be mitigated against.

Developers will be expected to minimise the effects of any possible pollution and provide mitigation measures where appropriate.”

- 11.14 Other measures relate to transport emissions, especially those through the designated AQMAs. These state:

“CSP 28 Reducing the Impact of Road Travel

We will reduce the impact of road travel by:

- developing and implementing robust, evidence based air quality action plans to improve air quality*
- working with our sub regional partners, fleet and freight operators to improve the efficiency of vehicles and goods delivery, and reduce exhaust emissions*
- implementing measures to ensure the current road system is used efficiently.”*

- 11.15 As well as:

“CSP 41 Development in Air Quality Management Areas

Development in air quality management areas will be expected to demonstrate that it will not have a harmful effect on the health or living conditions of any future users of the development in terms of air quality (including residents, employees, visitors and customers), or that any such harmful effects can be mitigated against.

We will only allow residential development in air quality management areas, where the developer provides an assessment that shows living conditions will be acceptable for future residents.

We will only allow development in air quality management areas which could cause more air pollution, where the developer provides an assessment that shows there will not be a significantly harmful effect on air quality.”

Baseline Environment

- 11.16 The search area for the permanent development (the search area) is located on the north eastern boundary of the Peak District National Park, an area that is predominantly rural with small villages or hamlets and farms. The main sources of air pollution in the vicinity of the search area are the A616 to the east, and an industrial facility to the north east.
- 11.17 National projections of air pollutant concentrations within the rural locations within the search area demonstrate that baseline air quality is of a very good standard (Defra, 2015a). Barnsley Metropolitan Borough Council undertakes monitoring at a number of locations within their administrative area (Barnsley Metropolitan Borough Council, 2015), and Defra has monitors as part of the Automatic Rural and Urban Network (AURN) (Defra, 2015b). The results from these monitoring regimes show that air quality in the vicinity of the search area is very good, with concentrations of nitrogen dioxide approximately a quarter of the objective value. Barnsley Metropolitan Borough Council has not identified any location within its administrative area that is likely to be above an objective value for any other pollutant.
- 11.18 Barnsley Metropolitan Borough Council has not declared any AQMAs within or near to the search area.
- 11.19 The Dark Peak Site of Special Scientific Interest (SSSI), Peak District Moors Special Protection Area (SPA) and South Pennine Moors Special Area of Conservation (SAC) are located approximately 300m from the search area, details of which are presented in **Chapter 6** (Ecology) of this Scoping Report.

Potential Impacts

- 11.20 Potential impacts on air quality in the vicinity of the search area are limited to the construction and decommissioning phases as during the operational phase activities will be limited to a small number of vehicles associated with inspection and maintenance purposes.
- 11.21 During the construction phase, there is the potential to change traffic flows on the local road network as roads may be closed (although this is not currently anticipated) or flows restricted due to traffic management methods. This would be discussed and agreed in advance with Barnsley MBC and Highways England as appropriate. There are a number of residential properties located alongside roads that may be affected by the works. The roads with the potential to be affected are Don View, Windle Edge and Brook Hill Lane.
- 11.22 The construction phase will also see an increase in emissions due to vehicles accessing the site and plant operating onsite. Vehicles accessing the site/s will do so using the local road network, and have the potential to increase local emissions. The proposed scheme will only require limited numbers of Non Road Mobile Machinery (NRMM), such as cranes or excavators. The NRMM plant will not be used at any one location for extended periods of time, as the works will progress along the development corridor and therefore have limited potential to adversely affect long term (annual mean) concentrations of pollutants emitted from the exhaust systems of NRMM.
- 11.23 There is also the potential for dust to be generated due to earthworks, vehicle movements on unpaved haul roads, and trackout of soils onto the road network, if appropriate standard construction practices were not applied. In terms of air quality sensitive receptors include human receptors (such as residential units or commercial operations sensitive to dust deposition) within 350 m of the works, ecological sites within 50m of the works, and any sensitive receptor within 50m of roads extending up to 500m from the site entrance could be impacted by fugitive dust emissions. There are very few

(less than 10) residential or commercial properties located within 100m of the existing overhead line (OHL). There are no internationally / nationally designated ecological sites within 50 m of the search area, however the Dark Peak SSSI, Peak District Moors SPA and South Pennine Moors SAC are located within 50m of the road approximately 300m from the search area.

Proposed Assessment Methodology

- 11.24 The Design Manual for Roads and Bridges (DMRB) includes advice on levels of additional road traffic movements above which there is the potential for adverse effects on local air quality to occur, dependent upon local conditions (Highways Agency, 2007). DMRB adopts a change in two way total traffic flows of 1000 AADT (Annual Average Daily Traffic) or a change in heavy duty vehicles (HDV) of 200 AADT, as screening criteria. It is likely that a scheme of this size would give rise to changes in traffic flows that are much smaller in magnitude than the DMRB criteria and it is considered highly unlikely that such traffic flows would be capable of generating sufficient emissions to adversely affect local air quality or designated ecological sites. The emissions from road traffic movements do not require further assessment.
- 11.25 NRMM will be maintained and operated in line with the requirements of National Grid Code of Construction Practice. Given the short term use of NRMM at any given location within the construction period, it is not considered necessary to quantify the impact of emissions to air from NRMM to conclude that a significant adverse effect is unlikely to occur.
- 11.26 Short term impacts due to emissions from construction dust generated onsite have the potential to affect amenity or local air quality, without appropriate standard construction practices. With standard construction practices, such as those set out in the Institute of Air Quality Management (IAQM) guidance on the assessment of construction dust (IAQM, 2014) for low risk sites, the impacts from the proposed scheme would not be significant.

Proposed Mitigation Measures

- 11.27 Dust management measures will be included in the Construction Environmental Management Plan (CEMP) for the proposed scheme, in line with the requirements of National Grid Code of Construction Practice. The CEMP will be provided to Barnsley Metropolitan Borough Council for their agreement. As the application of the measures in the CEMP will minimise the generation of emissions at source, construction phase activities are unlikely to give rise to significant adverse effects on amenity or air quality at any receptor, including designated ecological sites.
- 11.28 No mitigation is required to minimise emissions to air from road vehicles.

Issues to be Scoped Out

- 11.29 The following impacts are issues that can be scoped out on the grounds that there is unlikely to be a significant effect on local air quality sensitive receptor or the sustained achievement of the air quality limit values.
- Construction phase emissions of particulate matter (dust, PM₁₀ or PM_{2.5}) from site works;
 - Construction phase emissions from on road traffic;

- Construction phase emissions from Non Road Mobile Machinery; and
- Operational impacts on air quality.

12 Electric and Magnetic Fields

Introduction

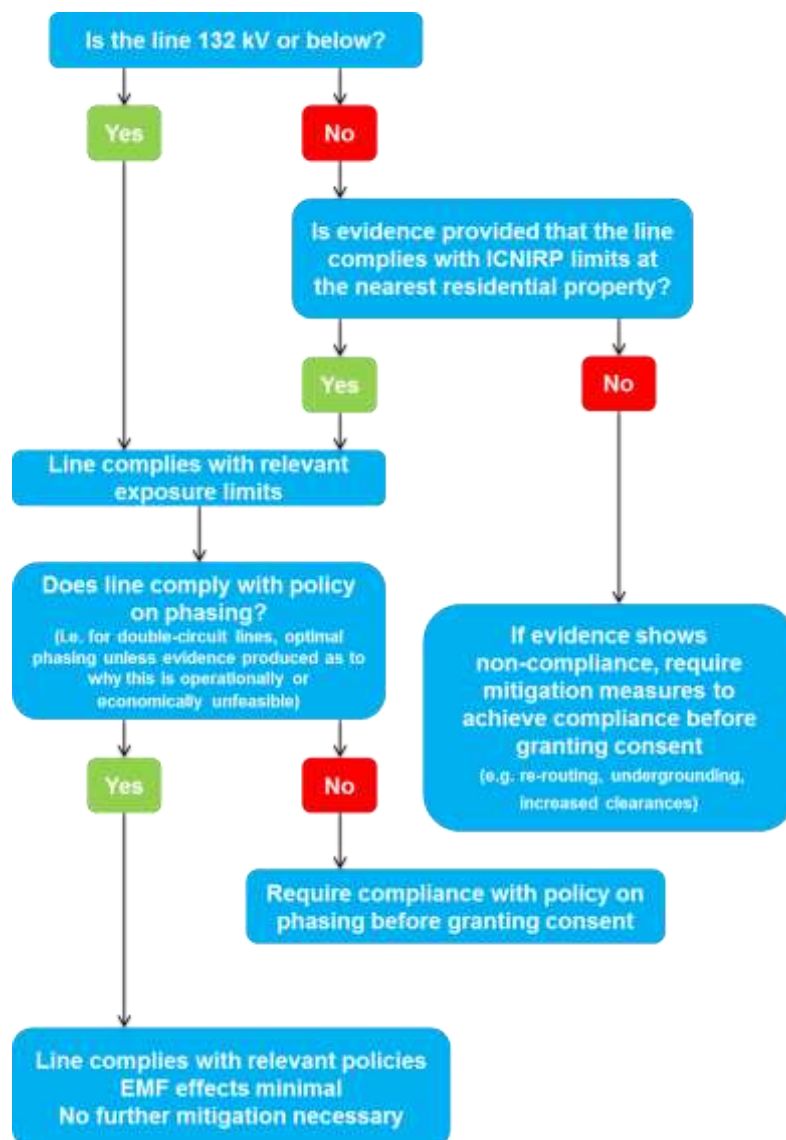
- 12.1 All equipment that generates, distributes or uses electricity produces Electric and Magnetic Field (EMFs). The UK power frequency is 50Hz which is therefore the principal frequency of the EMFs produced, which are also known as Extremely Low Frequency (ELF) EMFs.
- 12.2 Electric fields depend on the operating voltage of the equipment producing them and are measured in V/m (volts per metre). The voltage applied to equipment is a relatively constant value. Magnetic fields depend on the electrical currents flowing, which vary according to the electrical power requirements at any given time and are measured in μT (microteslas). Both fields diminish rapidly with distance from the source and are present in all areas where electricity is in use (e.g. office and homes), arising from electric cabling and equipment in the area.
- 12.3 Substations and sealing end compounds (SECs) do not produce significant EMFs outside their boundaries. In EMF terms, therefore, the principal effect of this proposed scheme is to replace a length of overhead line (the VIP subsection) with a length of underground cable. Unlike OHLs, underground cables produce no external electric fields, but they do produce magnetic fields. Overhead lines and underground cables both produce their highest magnetic fields on, or close to, the route centreline. Which produces the higher magnetic field out of the OHL and the underground cable depends on the details of the design, which have not been finalised yet. However, in both cases, the fields comply with the relevant exposure limits (see next paragraph). The magnetic fields from both the OHL and the underground cables fall rapidly with distance to the side of the route. The field from the underground cable falls more rapidly, falling to the levels found in UK homes in general in perhaps 20m compared to perhaps 100m for an OHL, though both these values depend on the specifics of the design.
- 12.4 This means that, in general, the underground cable produces lower exposures to people, but, because all fields from both OHLs and underground cables comply with the relevant exposure limits, no particular significance attaches to this fact.

Legislation and Policy

- 12.5 Whilst there are no statutory regulations in the UK that limit the exposure of the public to power-frequency electric or magnetic fields, responsibility for implementing appropriate measures for the protection of the public from EMFs lies with the UK Government. In 2004, the Government adopted guidelines published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) (ICNIRP, 1998) in the terms of the 1999 EU recommendation (European Council, 1999) on public exposure to EMFs. This policy of compliance with guidelines was reaffirmed in 2009, when one additional precautionary policy relating to high-voltage power lines, optimum phasing, was introduced. . The National Policy Statement for Electricity Network Infrastructure EN-5 (NPS EN-5) (Department of Energy and Climate Change (DECC), 2011a) also repeats these two policies and the DECC has published three Codes of Practice (DECC, 2012 a, b and 2013) which have been agreed between the Energy Network Association and the Government, which specify how compliance with these exposure guidelines and with the policy on optimum phasing will be determined.

- 12.6 There is some scientific evidence concerning the possibility that magnetic fields, at levels below the exposure guidelines that are in place, may be associated with higher rates of certain diseases, specifically childhood leukaemia. This evidence is taken into account by the relevant authorities in setting the exposure guidelines. Specifically, ICNIRP review the evidence, but conclude *“the currently existing scientific evidence that prolonged exposure to low frequency magnetic fields is causally related with an increased risk of childhood leukaemia is too weak to form the basis for exposure guidelines.”* Thus, the measures for the protection of the public that are in place in the UK, outlined in the previous paragraph, already take account of this scientific evidence.
- 12.7 It is National Grid’s policy as set out in its Public Position Statement (National Grid, 2014) on the subject to *“...as a minimum comply with EMF regulations, guidelines and practices in force in which we operate”*. This policy will be applied to this proposed scheme, and all the equipment installed will comply with the guidelines.
- 12.8 When the EMFs resulting from electrical equipment comply with the relevant exposure guidelines as specified by Government and with the additional precautionary policies, no significant effects from EMFs are expected. This is set out in paragraph 2.10.15 of NPS EN-5 - *“...where it can be shown that the line will comply with the current public exposure guidelines and the policy on phasing, no further mitigation should be necessary”* (DECC, 2011b) and the simplified route map for dealing with EMFs in EN-5 which is reproduced in Figure 12-1 below.

Figure 12-1 Simplified Route Map for Dealing with EMFs



Potential Impacts and Conclusion

- 12.9 Given that no significant effects from EMFs from the proposed scheme are expected, it is, therefore, proposed that the assessment of EMFs is scoped out of the Environmental Statement (ES), which, in accordance with the EIA Regulations, is required to describe the “likely significant effects of the development”.
- 12.10 National Grid, however, recognises public concern regarding EMFs and therefore wishes, despite scoping EMFs out of the ES, to provide all the relevant information on EMFs as part of the application. Comprehensive information on EMFs as they relate to the proposed scheme will be provided in a separate document which will be submitted alongside the ES. The ES will include relevant information from this document as appropriate. The information provided will include evaluations of the EMFs that will be produced as well as background information on EMFs and the scientific evidence relating to them. The evaluations will be performed according to the provisions of the DECC Code of Practice ‘Power Lines: Demonstrating Compliance with Public Exposure Guidelines’ (DECC, 2012a).

Electromagnetic Compatibility (EMC)

- 12.11 In 2009 the European Council Directive on electromagnetic compatibility, 89/336/EEC (European Council, 1989) and its amendments (the EMC Directive) was enacted into UK law. The main objective of the EMC Directive is to guarantee the free movement of electrical and electronic appliances and to create an acceptable electromagnetic environment within the European Union.
- 12.12 Fixed apparatus and large networks of the type owned and operated by National Grid are also included in the EMC Directive. The requirements of the EMC Directive are that the electromagnetic disturbance that the apparatus generates should not exceed a level allowing radio and telecommunication equipment and other apparatus to operate as intended; and the apparatus has an adequate level of intrinsic immunity to electromagnetic disturbance to enable it to operate as intended.

Potential Impacts and Conclusion

- 12.13 The main source of interference from transmission systems arises from radio frequency (RF) emissions caused by corona discharge. Where this occurs at all, it is from live conductors in the open air, e.g. OHLs and substations. Underground cables are not expected to produce such emissions. Radio frequency emissions and corona levels are limited and tested by design in National Grid’s technical specification in accordance with BS5049-3 (British Standards Institute (BSI), 1994), along with other equipment specific standards where applicable (BSI, 1998).
- 12.14 National Grid’s Transmission System, as a whole, has met the essential requirements detailed in Article 4 of the EMC Directive. This was achieved by creating a Technical Construction File (TCF) as per article 10.2 of the EMC Directive. The TCF is based on a combination of extensive on-site testing (OHLs and substations) and the examination of National Grid’s technical specifications, policies and standards to ensure that radio noise and corona are adequately addressed. The on-site surveys showed that there were no significant emission problems to address; and equipment technical specifications and policies ensured equipment was designed in accordance with British Standards to limit radio frequency noise and corona. Using the rationale of the TCF it was, therefore, determined that the National Grid system meets the essential requirements of the EMC Directive. A Certificate of Conformity was issued and is provided at **Appendix B**.
- 12.15 Underground cables were acknowledged in the TCF assessment but it was not considered necessary to perform measurements on these. While electric fields from

these cables are screened by the metallic sheath, power frequency magnetic fields are always present. Power frequency magnetic fields reduce very quickly with distance and are not a source of radio frequency emissions themselves.

- 12.16 Given this and that the EMC performance of the existing system has been certificated as compliant with Directive 89/336/EEC (European Council, 1989) by a Competent Body following appropriate onsite testing, it is considered that the proposed scheme will also present no issues with TV or radio interference under normal operating conditions and will be compliant with the EMC Directive.
- 12.17 No significant effects are therefore anticipated and it is, therefore, also proposed to scope out EMC from the full ES.

13 Traffic and Transport

Introduction

- 13.1 The Traffic and Transport chapter of the ES will identify the key issues and potential effects in transport terms on the local highway network resulting from the proposed scheme.
- 13.2 The search area for permanent development (the search area) is situated to the north of the A628 and west of the A616 in the vicinity of Dunford Bridge. The route of the 4ZO overhead line (OHL) runs to the south, and approximately parallel to Windle Edge and Brook Hill Lane as it passes through Dunford Bridge and Carlecotes. The existing sealing end compound (SEC) is situated near to the eastern entrance of the Woodhead Tunnel. A number of Public Rights of Way (PRoW) pass through the search area, including the Trans Pennine Trail and National Cycle Route 62.
- 13.3 A review of the current baseline conditions with respect to all transport modes which will be included within the environmental assessment is set out below.

Legislation and Policy

National Planning Policy

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

- 13.4 The National Planning Policy Framework (NPPF) published in March 2012 by the Department for Communities and Local Government (DCLG), sets out the Government planning policies for England and how these are expected to be applied. In terms of transport, the document has the following two objectives:
 - To facilitate economic growth by taking a positive approach to planning for development
 - To support reductions in greenhouse gas emissions and congestion, and promote accessibility through planning for the location and mix of development
- 13.5 Additionally, the document states that planning policies and decisions should consider whether:
 - Improvements can be undertaken within the transport network that limits the significant impacts of the development in a cost-effective manner. Subject to those considerations, development should not be prevented or refused on transport grounds unless the residual impacts of development are severe.

Local Planning Policy

Barnsley Local Development Framework Core Strategy (Barnsley Metropolitan District Council, 2011)

- 13.6 Barnsley's Transport Strategy is included as part of the Local Development Framework.
- 13.7 Relevant policies include CSP 28, which states that the impact of road travel will be reduced by 'working with fleet and freight operators to improve the efficiency of vehicles and goods delivery' and 'implementing measures to ensure the current road system is used efficiently'.

Peak District Local Development Framework Core Strategy (Peak District National Park Authority, 2011)

- 13.8 The Peak District National Park Authority Core Strategy sets out the vision, objectives and spatial strategy for the National Park and the core policies to guide development and change in the National Park to 2026.
- 13.9 Chapter 15 outlines the policies relating to accessibility, travel and traffic. This includes, T4 'Managing the demand for freight transport' which includes '*developments requiring access by Large Goods Vehicles must be located on or readily accessible to the Strategic or Secondary Road Network*' and Policy T6 which outlines the policies relating to rights of way, including '*where a development proposal affects a Right of Way, every effort will be made to accommodate the definitive route or provide a better alternative*'.
South Yorkshire Local Transport Plan (2011-2026) (South Yorkshire Local Transport Plan Partnership, 2011)
- 13.10 The South Yorkshire Local Transport Plan (LTP) is prepared by the South Yorkshire Local Transport Plan (SYLTP) Partnership, made up of the four local authorities in South Yorkshire (Barnsley, Doncaster, Rotherham and Sheffield) which form the 'Sheffield City Region (SCR)', and cover parts of the Peak District, including the area of Dunford Bridge.
- 13.11 The LTP includes four goals which are:
- To support the economic growth of the SCR;
 - To enhance social inclusion and health;
 - To reduce emissions from vehicles; and
 - To make transport increasingly safe and secure.
- 13.12 A total of 26 policies have been developed within the LTP to meet the four goals, which include:
- To ensure the road networks are well maintained;
 - To work to improve the efficiency of all vehicles and reduce their carbon emissions;
 - To improve the reliability and resilience of the national road network using a range of management measures; and
 - To promote efficient and sustainable means of freight distribution.

Baseline Environment

- 13.13 The road network immediately around Dunford Bridge is limited to lanes / unclassified roads which link the scattered settlements and individual farmsteads and properties; however, the A628 and A616 main roads provide adequate road links to the west and east. The B6106 Bents Road feeds into Brook Hill Lane, which is north of the search area, and provides a link to the A616 at a priority crossroads.
- 13.14 Traffic counts will be undertaken in liaison with the local highways authority and Highways England. Consultation on the location of proposed traffic count locations and timing has commenced with Barnsley Metropolitan Borough Council (BMBC) and Highways England.

Access and Recreation

- 13.15 The Trans Pennine Trail and National Cycle Route 62 largely follow the route of the old railway line and the Upper Don Valley Trail from west to east. The Trans Pennine Trail also forms part of European Long Distance Footpath E8.
- 13.16 National Cycle Route 68 (Pennine Cycleway) runs from north to south skirting around Winscar Reservoir and along the same route as the Barnsley Boundary Walk. A local cycle route also runs through the Site along Windle Edge and Brook Hill Lane between Townhead and Millhouse Green.
- 13.17 There are vast tracts of Open Access Land up on the moorlands and one area of Common Land in the search area.
- 13.18 There is a car park and picnic area next to the road bridge at Dunford Bridge and further car parking and picnic areas to the east of Winscar Reservoir off Dunford Road and also to the south west of the reservoir off Windle Edge.
- 13.19 Winscar Reservoir is well used for recreational boating by the Pennine Sailing club.
- 13.20 There are no active railway lines within the search area. Bus stops are located at the entrance to the Trans Pennine Trail and along Windle Edge and serve route 25, which runs between Penistone and Towngate. This service runs every two hours Monday-Saturday between the hours of 0800-1800, with a slightly reduced service on Sundays.

Potential Impacts

- 13.21 Potentially significant environmental effects include those which are likely to take place during construction and decommissioning, as a result of the movement of heavy goods vehicles (HGVs) travelling to and from the proposed scheme, for example removing spoil or transporting materials and/or equipment to/from the site.
- 13.22 Occasional trips will also be made to and from the site by cars and light goods vehicles (LGVs) once the proposed scheme becomes operational (See **Table 2.1**). This will be mainly for inspection/maintenance purposes, as outlined in **Table 2.1**. Any vehicle movements required during the operational phase would have a negligible impact on traffic levels in the area and therefore the assessment of impacts as a result of additional traffic will be principally associated with the construction phase.
- 13.23 The Traffic and Transport ES chapter will also consider the potential effects of decommissioning, as a result of the movement of HGVs to and from the proposed scheme, transporting spoil or materials.
- 13.24 In addition to the environmental effects of construction traffic, temporary road closures (none currently anticipated, but subject to further detailed analysis) or new access points to haul roads could also be required to facilitate construction. There are also a number of national paths/trails/cycle routes which pass through the search areas which may be impacted by the proposed scheme. Any temporary road closures and impacts to PRoWs will be considered as part of the Traffic and Transport ES chapter, as well as potential effects on public transport services in the area.
- 13.25 Construction phase activities, which are expected to take approximately 2 years, are set out below. These will be considered in the assessment of traffic and transport related environmental impacts:
 - Removal of the existing SEC at Dunford Bridge, east of the Woodhead Tunnel;
 - Construction of a new SEC and replacement terminal pylon including permanent access (at the eastern end of the new underground cable) required to connect the new underground cables to the remaining existing overhead line (OHL);

- Underground cabling of approximately 1.6km (depending on exact location of SEC and route of cable alignment).
- Removal of the existing VIP subsection including approximately 7 pylons and 1.8km of OHL (depending on exact location of SEC).
- A cable jointing building outside the entrance to the Woodhead tunnel within National Grid's existing operational compound; and
- Jointing of the new underground cable to the existing cable within the Woodhead Tunnel.

13.26 The search area identified for the proposed SEC is south of Townhead, comprising land on the lower slopes of the Upper Don Valley north of the river, and land south of the river. SECs require permanent road access and therefore the potential impacts of this will need to be considered, dependent on the chosen cable alignment. Connections from haul roads and construction compound to the local road network will also need to be considered.

13.27 Removal of the existing VIP subsection will require the provision of temporary access points and haul roads, a crane to dismantle the pylons and vehicles to remove pylon sections. The routing of these HGV movements and potential impacts of temporary access points will also be considered.

13.28 Taking the above into account, the traffic and transport assessment will focus on:

- Permanent effects associated with:
 - Creation of a new access to serve the SEC during operation and servicing and maintenance traffic associated with the site once operational; and
 - Any permanent changes to the road network or rights of way routes.
- Temporary effects associated with:
 - Construction traffic using the highway network; and
 - Temporary changes to the highway network or rights of way routes (i.e. closures and/or diversions) during construction.

Proposed Assessment Methodology

13.29 Guidance for the assessment of the environmental effects of traffic is provided in the Institute of Environmental Assessment's (IEA)⁴ 'Guidelines for the Environmental Assessment of Road Traffic' (hereafter known as the 'IEMA Guidelines'). This indicates that from a quantitative perspective, highway links subject to traffic flow increases of more than 30%, or 10% if affecting a sensitive area, need to be assessed.

13.30 Sensitive areas may be defined as locations close to more vulnerable road user groups, such as school children or the elderly, or as links with high pedestrian flows, areas at or near capacity or areas with a high number of road collisions.

13.31 These industry-accepted guidelines will provide a consistent method of assessment for the proposed scheme.

13.32 In accordance with the IEMA Guidelines, the following criteria will be considered in this assessment:

- Severance;

⁴ Now the Institute of Environmental Management and Assessment (IEMA)

- Driver delay;
- Pedestrian and cycle delay;
- Pedestrian and cycle amenity;
- Fear and intimidation;
- Road safety; and
- Hazardous loads.

13.33 Cumulative effects of developments deemed appropriate by the Highways Officers will also be taken into account.

Severance

13.34 According to the IEMA Guidelines, severance is described as the perceived division that can occur between communities when it becomes separated by a major traffic artery. It may also result from the difficulty of crossing a heavily trafficked road or physical barrier created by the road itself.

13.35 The Traffic and Transport ES chapter will consider the impact on severance in the context of any temporary road closures or impact on any PRow.

Driver Delay

13.36 Driver delay as a result of a change in volume and composition of traffic will be considered within the Traffic and Transport ES chapter.

Pedestrian and Cycle Delay

13.37 The IEMA Guidelines outline pedestrian and cycle delay as a result of a change in volume, composition or speed of traffic which may affect the ability of pedestrians to cross roads.

13.38 Any impacts on pedestrian and cycle delay will be considered within the Traffic and Transport ES chapter, however it is anticipated that due to the rural nature of the area, there will only be limited interaction between pedestrians and vehicles.

Pedestrian and Cycle Amenity

13.39 The IEMA Guidelines suggest that pedestrian amenity can be broadly defined as the 'relative pleasantness of a journey', and is considered to be affected by traffic flow, traffic composition and pavement width / separation from traffic.

13.40 The Traffic and Transport ES chapter will analyse the facilities available for pedestrians and cyclists in the vicinity of the search area, including PRows and cycle paths and how these may be impacted by the proposed scheme.

13.41 Cabling along the Trans Pennine Trail to the south of the river would require a temporary diversion of the trail. Consultation with Barnsley Metropolitan Borough about potential diversion routes is ongoing.

Fear and Intimidation

13.42 Traffic may impact on pedestrians through fear and intimidation. This is dependent on the volume of traffic, its HGV composition, its proximity to people or lack of protection caused by factors such as narrow pavement widths. As discussed in the IEMA Guidelines, there are no commonly agreed thresholds for estimating levels of danger, or fear and intimidation, from known traffic and physical conditions; therefore, there is a need for professional judgement to be exercised.

Road Safety

- 13.43 A review of collision data near to the site will be undertaken as part of the transport analysis. This will consider STATS19 data over the most recent five year period to identify any potential hazard locations.

Hazardous Loads

- 13.44 The assessment would consider the potential effects of potential hazardous loads (i.e. abnormal loads or large vehicles) along the routes to the relevant construction sites.
- 13.45 Any proposed hazardous loads (and proposed routes) would be discussed and agreed with relevant parties, including the police and local and strategic highways authorities, to ensure the movements can be managed appropriately.

Proposed Mitigation Measures

- 13.46 Management and mitigation measures to limit the impact on the local highway network will be developed as appropriate within the Traffic and Transport ES chapter, dependent on the agreed cable alignment and location of site works. Mitigation will be included in a Traffic Management Plan that will form part of the Construction Environmental Management Plan (CEMP). It is anticipated that measures may include but are not limited to:
- Recommended routes to/from the site for HGVs;
 - Vehicle movements distributed throughout the day;
 - Temporary signage schemes providing warnings of site traffic / site accesses;
 - Traffic marshalling; and
 - Vehicle 'muck' control to ensure the cleanliness of the public highway.
- 13.47 Measures will also be proposed to manage any impact on the public footpaths, national trails and national cycle route which may be affected by the proposed scheme.

Issues to be Scoped Out

- 13.48 It is proposed that the following matters are scoped out of the assessment:
- Potential effects of vegetation on routes used by construction traffic. Trees overhanging the proposed routes for construction vehicles may require pruning under a maintenance programme to remove the risk of damage or accidents to other vehicles or road users. This will be identified in a Construction Traffic Management Plan.
 - Potential effects of construction traffic on road condition. The types of construction vehicles used and their loads may affect the condition of the existing road surface. Once construction is complete, the transport network will be reinstated to its original condition.
 - Potential effects on road safety due to the track-out of mud onto the public highway. Wheel cleaning facilities would be provided, if required, at construction site access points to prevent mud on the highway which may result in a slip/skid hazard for other road users. This will be identified in a Construction Traffic Management Plan.
 - Potential effects of operational traffic on transport networks. It is not anticipated that there will be adverse effects on transport networks during the operational

phase of the development as traffic movements will be limited to infrequent repair and routine maintenance works on all aspects of the development.

13.49 Other environmental effects that are related to the traffic and transport element of the proposed scheme will be assessed within their relevant technical chapters. These could relate to:

- The provision of new access junctions/haul roads through existing hedge/fence lines;
- The upgrading of existing informal accesses/creation of a temporary PRow diversion which may require the removal/coppicing of trees;
- Air pollution/ dust and dirt; and
- Noise and vibration.

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14 Socio-Economics and Tourism

Introduction

- 14.1 The Socio-Economics and Tourism chapter of the ES will assess the likely significant effects on socio-economic features as a result of the proposed scheme during the construction, operation (including maintenance) and decommissioning phases of the project. In this context 'social impacts' refer to the consequences to human populations of any public or private actions that relate to the ways in which people live and work. The term 'economic impacts' includes issues such as employment, and direct and indirect spending associated with the proposed scheme.
- 14.2 The socio-economic issues that will be considered as part of the assessment include:
- Tourism: visitors to the area that may stay or visit areas in proximity to the proposed scheme;
 - Access: residential properties and traffic issues, Public Rights of Way (PROW) and recreation activities;
 - Landscape and visual issues: the effect of landscape and visual impact from a socio-economic perspective;
 - Impact on forestry / land take: potential effects on economic crops / farmland;
 - Employment generation: direct and indirect; and
 - Supply chain impacts: on a local and national basis.
- 14.3 The effect on agricultural land will be considered within the Agriculture and Land Use chapter (see **Chapter 10** of this Scoping Report).

Legislation and Policy

- 14.4 Legislation and planning policy relevant to the ecological assessment comprises:
- National Planning Policy Framework (NPPF);
 - Sheffield City Region Local Enterprise Partnership (LEP) Growth Plan;
 - Peak District National Park Authority (NPA) Core Strategy (2011);
 - Barnsley Core Strategy (2011); and
 - Barnsley Local Plan – Consultation draft (2014).

Baseline Environment

- 14.5 Baseline data collection has been undertaken to understand the context of the socio-economic issues which might be associated with the proposed scheme. The study area for the socio-economic assessment has been placed within the context of the search area for permanent development (the 'search area') and the zone of influence which can be defined as the wider corridor within which socio-economic receptors or resources could be affected by the proposed scheme.

- 14.6 The baseline data has also taken account of relevant Lower Super-Output Areas (LSOAs)⁵ as the basis for the baseline context for this Scoping Report as they provide the most specific reporting of local area statistics. The LSOAs under consideration are:
- Barnsley Metropolitan Borough: Barnsley 027D.
- 14.7 Baseline data presented in this section has been obtained from the following sources:
- Index of Multiple Deprivation (Department of Communities and Local Government (DCLG), 2015);
 - MAGIC Mapping (Department for Environment, Food and Rural Affairs (DEFRA) 2016);
 - 2001 Census (Office for National Statistics (ONS), 2001);
 - 2011 Census (ONS, 2011);
 - Annual Population Survey (Jan 2014 – Dec 2014) (ONS, 2014);
 - Business Register and Employment Survey (ONS, 2014);
 - Annual Survey of Hours and Earnings (ONS, 2015); and
 - Top 10 English Tourist Destinations - Visit Britain (Visit Britain website, 2012).

Population

- 14.8 The main centres of population within the vicinity of the search area include:
- Dunford Bridge;
 - Carlecotes;
 - Hazlehead; and
 - Townhead.
- 14.9 In terms of population within the lower super-output area the 2011 Census recorded 1,558 usual residents.
- 14.10 Population density provides a measure of the number of people living in an area. It is higher in urban areas, and lower in rural areas. The proposed scheme is located in a rural area with generally low population densities, avoiding the majority of centres of population. The average persons per hectare for the LSOA is 0.2 which is significantly below the average national population density for England as a whole (4.1). This highlights the rural location of the search area.
- 14.11 Based on the results of the 2011 Census there are no LSOA's within the vicinity of the proposed scheme which are within the top 10% of the most deprived in England.
- 14.12 The age structure of a population indicates both the current and strategic (future) requirements of an area. A younger population, for example, may require additional access to schools, safe recreation play facilities and the development of future employment opportunities, while aging populations are likely to require a greater focus on health care, living support, accessibility and social networks. The age data for the LSOA highlights a marked increase in the proportion of the population in the mid-60 to mid-80 age bracket highlighting the aging population within the area. Increases in this age bracket were above both that recorded for the district and the region as a whole.

⁵ Lower Super Output Areas (LSOA) are the smallest geography available for the reporting of small area statistics in England and Wales. There is an LSOA for each postcode in England and Wales.

Education, Skills and Training

- 14.13 Education is an important socio-economic factor and influences a range of issues such as lifestyle, coping skills, employment prospects, income, quality of housing and healthcare. The LSOA shows a similar average to both regional and national levels in terms of qualification levels with 25.2% on average with no qualifications (compared to 25.8% within Yorkshire and the Humber and 22.5% in England as a whole). The proportion of residents with a degree within the LSOA is somewhat higher than the regional average but comparable to the average for England as a whole (28.6%, 23.3% and 27.4% respectively).

Employment and Income

- 14.14 Between January 2014 and December 2014 in Barnsley the average employment rate for ages 16-64 was 72.5% while 8.5% were unemployed.
- 14.15 The greatest percentage of jobs in Barnsley are in the health and manufacturing sectors (15.8% and 15.2%), whilst the education, business administration and support services, and retail sectors account for the next major sources of employment (9.7%, 9.7% and 9.3% respectively).
- 14.16 Average income for residents within Barnsley is somewhat below the national averages at approximately £469.00 gross weekly pay (England average is £532.60). Similarly, average incomes for workers within Barnsley are below the national average, at approximately £494.10 compared to the national average of £532.40.

Tourism

- 14.17 There are no 'top 10' attractions⁶ in England within the search area for permanent development.
- 14.18 There is one identified regional level attraction within the zone of influence of the proposed scheme; the town of Holmfirth which is famous as being the location of the television programme 'Last of the Summer Wine'. Holmfirth is located approximately 6km north of the proposed scheme.
- 14.19 There is one identified local level attraction within the zone of influence of the proposed scheme; the Winscar reservoir.

Recreation Resources

- 14.20 The search area crosses National Cycle Route 62. Route 68 lies within the zone of influence of the proposed scheme.
- 14.21 There are no Registered Parks and Gardens or Country Parks crossed by the search area.
- 14.22 The search area crosses a number of other recreational resource features, including the following:
- Public Rights of Way – one PRoW (Dunford CP 25) is crossed by the search area and there are numerous other PRoW within the zone of influence of the proposed scheme, including footpaths, bridleways and byways open to all traffic;
 - CROW Act 2000 Registered Access / Common Land crossed by, and in the vicinity of the search area includes pockets to the north, south and west of Townhead;
 - There are no camping or caravan parks within the search area or the immediate vicinity of the proposed scheme but the Langsett Camping site is located approximately 2.2km to the south- west of the search area; and

⁶ As defined by Visit Britain (2012)

- The Pennine Sailing club is based at Winscar Reservoir approximately 0.5 km from the proposed scheme and offers sailing and windsurfing facilities.

Business

14.23 Local businesses in the zone of influence of the proposed scheme include several farm holdings, the Fox House public house, as well as the Old School House Carlcotes, Dog and Partridge Inn, Langsett Camping Grounds and Lazy Daisys all of which offer visitor accommodation and are located within 2km of the proposed scheme. The former Hepworth Ironworks site is also located approximately 1.5km north-east of the proposed scheme and is currently occupied by two businesses (a manufacturer of plastic pipes and a recycling business).

Housing

14.24 Housing throughout the recorded LSOA has a significant proportion of detached houses and bungalows at approximately 43.2% (compared to the England average of approximately 22.3% respectively).

Potential Impacts

- 14.25 The proposed scheme will mitigate the visual impact of the existing VIP subsection within and immediately adjacent to a nationally protected landscape. The potential issues to be considered as part of the environmental assessment include:
- Construction phase: Land take and associated impact on land-based economic operations;
 - Construction phase: Temporary severance or restricted access to resources and receptors;
 - Construction phase: Demand for temporary accommodation, e.g. hotels, Bed and Breakfasts (B&Bs), caravan pitches and self-catering accommodation and the impact this has on the tourism industry in the region;
 - Construction phase: Potential effects on crime and fear, e.g. associated with construction site compounds;
 - Operation phase: Permanent land take and impacts on land holdings;
 - Operation phase: Permanent severance of access to and from or along resources and receptors; for example, the permanent diversion of a PRoW;
 - Decommissioning phase: Effects during the decommissioning phase are likely to be similar to those identified in the construction phase of the proposed scheme;
 - All phases: Employment generation and spending impacts through the supply chain;
 - All phases: Amenity impacts (linked to results of other technical chapters including noise, visual and traffic) of the proposed scheme on the well-being of, and enjoyment of the area by, the local community and tourists;
 - All phases: Potential effects on relevant local authority allocations, e.g. for employment, housing and mineral exploitation. Allocated areas have the potential to create economic value and inward investment into the area;
 - All phases: Potential cumulative impacts when considered with relevant other proposed and consented developments;
 - All phases: Potential perceived effects on the quality of recreational use of roads, PRoW, common land and other public trails and footpaths;

- All phases: Potential effects on other community and recreational facilities, such as country parks, golf courses, other public open space, health, education and community gathering locations (e.g. halls, churches, etc.); and
- All phases: Potential effects on existing infrastructure.

Proposed Assessment Methodology

14.26 The following activities would be undertaken as part of the socio-economic assessment for the EIA:

- Description of the existing socio-economic baseline conditions, including population and demography, business and industry, community resources and community values (expanding on the baseline information presented in this scoping report);
- Identification and assessment of potential community impacts or changes to the existing baseline conditions, including desk-based research, consultation with key stakeholders / surveys and evaluating likely significance of impacts;
- The impact on employment would be explored within both the local and regional populations. This would include a review of local economic development / regeneration strategies, a review of Local Development Plan (LDP)/Local Development Framework (LDF) proposals and policies (to be considered as part of the assessment of planning and policy) and consultation with economic development officers;
- Information on the following would also be sought:
 - Construction: Likely materials required (depending on detailed design taken forward selected), likely number (and source) of employees during construction; likely timeline for construction; type of skills required for manufacture and construction; potential sourcing of material ; proportion of local employees;
 - Operation / maintenance: Lifetime of materials used in structures; regularity of maintenance work (painting / replacement of parts); and
 - Decommissioning: Likely number (and source) of employees for decommissioning; likely timescale for decommissioning activities.
- Further identification and assessment of community facilities and recreational receptors within the zone of influence of the proposed scheme, including schools, health care facilities, churches and other faith buildings, festivals, open access land and registered common land, and the potential effects on these;
- Review of current land use within the search area, specifically focusing on areas where above ground permanent infrastructure is proposed and understanding temporary working areas and access routes during the construction phase. The assessment would appraise the impact of infrastructure on land use, calculating net loss during both construction and operation, where not addressed within the Agriculture and Land Use chapter, while also considering access arrangements / agreements for essential maintenance;
- Interrogation of information on businesses within the zone of influence of the proposed scheme, to identify the nature and potential sensitivity of the business, the extents of non-agricultural land interest, and potential future requirements and aspirations;
- Identification of measures to avoid, manage or mitigate potential impacts;

- Assessment of potential inter and intra project cumulative impacts (see **Chapter 1** of this Scoping Report); and
- Assessment of residual effects of the proposed scheme.

Spatial Scope

- 14.27 In the socio-economic context, receptors are individuals, organisations or groups who are users or beneficiaries of socio-economic resources (community facilities, businesses, accommodation, etc.). Therefore, defining the spatial scope can be complex because of the need to consider individuals and structures at a variety of distances from the proposed scheme that may be affected because of a number of potential effects such as economic impacts (which are difficult to define categorically) and issues such as visual impacts (that will be coordinated with those completing the landscape assessment). In addition, there are a range of spatial levels (e.g. LSOAs, ward profiles and local authority administrative boundaries) over which socio-economic information is available.
- 14.28 Socio-economic effects will occur both as a result of direct interaction with socio-economic features, such as severance of a PRoW during construction / decommissioning and also in terms of the economic activity in an area, such as construction / decommissioning job generation, affecting a much wider spatial area. Therefore, the assessment will consider an area of influence that focuses on lower super-output areas which encompass the proposed scheme.
- 14.29 The assessment will be co-ordinated with the landscape assessment work to see if there are any additional locations at a greater distance that may need to be considered from a socio-economic perspective. Where possible, the socio-economic assessment will report in a consistent manner within these areas of influence and at an appropriate scale (e.g. scheme wide).

Temporal Scope

- 14.30 The socio-economic assessment will consider the effects across the construction, operational and decommissioning phases and, in accordance with good practice, it will consider the following temporal elements:
- Temporary impacts – This will reflect impacts that will occur primarily during the construction and decommissioning phases; and
 - Permanent impacts – This will reflect impacts that will occur during the operational period of the proposed scheme once construction is completed.

Assessment of Impacts

- 14.31 The assessment of impacts will be used to determine: the sensitivity of receptors; the magnitude of impacts and the consequent significance of effects. The significance of an effect is determined by assessing the magnitude of the impact (physical change) and the sensitivity of the receptor (the beneficiary, user, occupier or owner). Magnitude of impact will be assessed as high, medium, low and negligible. The sensitivity of a receptor(s) will be assessed as high, medium or low.
- 14.32 Assessment will be made by considering findings from a range of sources including survey work, site visits, the use of Geographical Information Systems (GIS), background research and professional judgement. Magnitude includes an assessment of what type of effect there would be on baseline conditions and the functioning of that resource. The following questions are considered when assessing magnitude:
- How will the impact affect the operation of the resource?
 - To what extent will the resource be able to adapt to the change?

- For combined amenity impacts: do other relevant assessment topics conclude a significant effect?
- How long will the impact last? (Is it temporary or permanent?)
- How regularly does it occur? At what times of day?

14.33 In considering the sensitivity of receptors to an impact the following types of questions would be considered:

- What is the scarcity of the affected resource and what is the availability of alternatives?
- Are there alternatives within the relevant catchment area? Do they have spare capacity?
- How easy would it be to replace /relocate the resource? How likely is re-provision?
- How accessible are the alternatives to the users of the impacted resource?
- What is the capacity of the receptors to accommodate the impact?
- Who are the users? What is the catchment area? Does it provide a specialist facility / service? Are users from vulnerable or protected groups (e.g. elderly, disabled, ethnic minorities, etc.)?
- How many people are likely to be affected (including as a proportion of total people in the relevant community or user group)?

14.34 Significance is determined by assessing magnitude and sensitivity for each impact. Taken together these determine whether the effect is considered to be 'significant' or 'not significant'. Effects can be either beneficial or adverse.

Table 14.1: Classification of Effects

Sensitivity of Receptor	Magnitude of Impact			
	High	Medium	Low	Very Low
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Very Low	Minor	Negligible	Negligible	Negligible

Proposed Mitigation Measures

14.35 The assessment will seek to identify suitable mitigation to reduce, remove or compensate significant negative impacts and to enhance identified positive impacts. Potential mitigation measures might include: temporary/permanent replacement of community/recreational facilities impacted by the proposed scheme, provision of a worker accommodation strategy and staging of appropriate construction activities to avoid peak holiday seasons or local festivities.

Issues to be Scoped Out

14.36 Currently no potential issues that may lead to significant effects can be scoped out.

15 Noise and Vibration

Introduction

- 15.1 This chapter considers the scope of assessment required for noise and vibration from the construction, operation and decommissioning of the proposed scheme.
- 15.2 As the methods of assessment, criteria and noise indices used, standards referred to and receptor sub-sets are different for construction/decommissioning and operational noise and vibration, this chapter has been divided into the following three parts:
- Part 1 - Construction and Decommissioning Noise and Vibration;
 - Part 2 – Operational Noise and Vibration; and
 - Part 3 - Summary and conclusion of Noise and Vibration effects.

Legislation and Policy

- 15.3 The National Planning Policy Framework (NPPF) (Department for Communities and Local Government, 2012), paragraph 123, aims to ensure that significant adverse impacts on health and quality of life as a result of noise from new development should be avoided; other adverse impacts on health and quality of life arising from noise from new development should be mitigated and reduced to a minimum.
- 15.4 The Noise Policy Statement for England (NPSE) (Department for Environment, Food and Rural Affairs, 2010) aims to *“avoid significant adverse effects from noise, minimise adverse effects and where possible contribute to the improvement of health and quality of life”*.
- 15.5 Both the National Policy Statement for Energy (EN-1) (DECC, 2011a) and the National Policy Statement for Electricity Networks Infrastructure (EN-5) (DECC, 2011b) provide guidance to planning authorities including those considering planning applications submitted under the Town and Country Planning Act 1990 (as amended) (HM Government, 1990)a. EN-1 includes generic guidance on noise and vibration during both construction and operational phases, while EN-5 in particular provides guidance on operational noise from high voltage transmission lines.
- 15.6 Construction noise and vibration impacts and operational noise and vibration impacts are not covered directly by legislation, however, the Control of Pollution Act (1974) (CoPA) (HM Government, 1974) and Part III of the Environmental Protection Act (1990) (EPA) (HM Government, 1990b) contain sections which can be applied to construction noise and vibration.
- 15.7 Under Section 60 of the CoPA a Local Authority can serve a notice on a contractor in order to control construction works. Under Section 61 of the CoPA a contractor can apply for ‘prior consent’ to carry out construction works, in order to agree in advance with the Local Authority the details of the works and the methods to be employed to minimise noise.
- 15.8 Under the EPA a Local Authority can serve an abatement notice on a contractor if they consider noise or vibration from construction works to amount to a statutory nuisance. In addition, individuals can also pursue private action under the EPA. The EPA can also be used by the Local Authority, or a member of the public, to take action against

industrial or commercial sources of noise, including electricity transmission infrastructure, affecting residential properties.

- 15.9 British Standard 5228:2009+A1:2014, (Code of practice for noise and vibration control on construction and open sites), consists of two parts which provide guidance on the prediction, assessment and control of noise and vibration from construction works (BSI, (2009a and b).
- 15.10 British Standard 4142:2014, (Methods for rating and assessing industrial and commercial sound), provides guidance on the prediction and assessment of industrial noise sources and describes methods which use outdoor sound levels to assess the likely effects of sound on people who might be inside or outside a dwelling or premises used for residential purposes upon which sound is incident (BSI, 2014).

Baseline Environment

- 15.11 Baseline noise measurements will be undertaken as part of the assessment where necessary. However, it is likely that baseline noise levels will be low in the area of the proposed scheme given its rural nature.
- 15.12 Existing sources of noise will include local road traffic and noise from local sources such as farming activities, birdsong, etc. Dependent on climatic conditions, there is also potential for corona discharge noise from the existing 4ZO overhead line (OHL).
- 15.13 The sealing end compound (SEC) search area covers a rural area with no apparent sensitive noise receptors. However, there are receptors within the wider search area for the permanent development in the village of Townhead and Dunford Bridge, and other individual receptors with 200 m of this area, which may be affected by noise from construction and decommissioning works dependent on the final selected cable route and location of the new SEC and cable jointing building.
- 15.14 As the existing 4ZO OHL passes close to a number of isolated residential properties and some conurbations (including Townhead and Dunford Bridge), there could be potential noise impacts at these properties during the removal of the existing VIP subsection (pylons, conductors and associated components) and existing SEC at Dunford Bridge. Depending on the final scheme access requirements, the selected route for the underground cable and associated construction access routes may pass close to some noise and vibration sensitive receptors, particularly those at Dunford Bridge.

Part 1 - Construction and Decommissioning Noise and Vibration

Potential Impacts (Part 1)

- 15.15 The construction phase includes the building of a new terminal pylon, SEC, and cable jointing building together with the associated access infrastructure, the installation (by direct burial or cable trough) of new underground cabling, removal of the existing VIP subsection and the terminal pylon and SEC located at Dunford Bridge.
- 15.16 During the construction phase, the main noise sources will be use of heavy earth moving plant, foundation works for the new terminal pylon and SEC (which may include the need for piling works), and movement of construction related vehicles on specific haul roads and the local road infrastructure.
- 15.17 Most of the proposed works are unlikely to result in significant levels of vibration, with the exception of any potential piling works which may be required for foundations of the new terminal pylon. The requirement for these works is likely to be dependent on the ground conditions at the selected location, and any vibration impacts would be temporary, intermittent and localised in the vicinity of the pylon and dependent on the type of piling undertaken.
- 15.18 Noise and vibration sensitive receptors affected by the construction and decommissioning works may include residential properties close to the works, farms, community facilities, and ecological receptors.
- 15.19 Any construction and decommissioning noise and vibration effects would be temporary and limited to the duration of the nearby phases of works.
- 15.20 Similarly, the proposed route of the underground cable may result in construction activities close to sensitive receptors, or temporary access routes bringing construction traffic past sensitive receptors.
- 15.21 During the removal of the VIP subsection, the major sources of noise will be construction traffic and plant. A decision as to whether the existing pylon foundations would be left in the ground would be made at such time in the future and would also take account of land owner preferences and environmental issues. However, for the purposes of the assessment it is assumed that they would be removed down to a suitable depth. Hence, where pylon foundations are to be removed, significant noise is likely to be generated by any concrete breaking activities.
- 15.22 Noise and vibration impacts from the decommissioning phase would be similar to those during the construction phase, although more limited in extent, as it is likely that the underground cable would not be removed, and hence impacts would be limited to the vicinity of terminal pylons and SECs.

Proposed Assessment Methodology (Part 1)

- 15.23 A full list of potentially affected noise and vibration sensitive receptors will be developed, from local knowledge, review of local mapping and liaison with Peak District National Park Authority and Barnsley Metropolitan Borough Council. In addition, these will be reviewed in conjunction with the ecology assessment to ensure that relevant ecological receptors are considered.
- 15.24 Where necessary, a baseline sound survey would be undertaken to ascertain typical existing sound levels. The requirement for and locations used in this survey will be dependent on the final design for the proposed scheme.

- 15.25 Given the rural nature of the search area, it is likely that the construction noise and vibration impacts from much of the proposed scheme will be minimal due to the distance between the works and any sensitive receptors. However, dependent on the final alignment and requirements for access routes, significant effects may be experienced.
- 15.26 Levels of construction noise will be predicted in accordance with the methodology set out in BS 5228 Part 1 (British Standards Institute, 2014), and assessed in accordance with this standard to identify any significant effects due to construction noise. This assessment requires details of proposed construction methodologies, plant to be used, operating times, etc. Where these detailed data are not available, an outline assessment would be completed based on expected construction methods.
- 15.27 If any piling works are likely to be required, impacts from piling vibration will be assessed using data and methodology from BS 5228 Part 2 (BSI, 2014).

Proposed Mitigation Measures (Part 1)

- 15.28 Construction noise mitigation will be by means of the application of best practice, as set out in BS 5228. This can be formalised within a Construction Environmental Management Plan (CEMP). This is likely to include agreement of working days and hours, working methods, plant and techniques, and potentially permitted noise levels which construction works should comply with.
- 15.29 If piling works are required, and predicted to result in significant vibration impacts on nearby receptors, consideration would be given to alternative piling methods where possible to mitigate these impacts.

Issues to be Scoped Out (Part 1)

- 15.30 If detailed construction design determines that no piling works are required for the construction of the SEC or new terminal pylon, then vibration due to construction works can be scoped out of the environmental assessment, as no other significant sources of vibration are expected to be associated with the construction or decommissioning works.

Part 2 - Operational Noise and Vibration from Proposed New Infrastructure

Introduction (Part 2)

- 15.31 This section considers the potential operational noise impacts of the proposed scheme due to the operation of:
- Underground cabling of approximately 1.6km (depending on location of SEC and cable alignment) and a new cable jointing building;
 - Removal of the existing SEC at Dunford Bridge, east of the Woodhead Tunnel;
 - A new SEC and replacement terminal pylon at the eastern end of the cable route in the SEC search area, to achieve the transition from an OHL to an underground cable, with the potential for reconductoring of some spans of the existing 4ZO OHL to the east.

Potential Impacts (Part 2)

Underground Cables and Cable Jointing Building

- 15.32 Underground high voltage cables do not vibrate or make noise when in operation. It is therefore proposed to scope out underground cables from the operational noise and vibration section of this chapter.
- 15.33 An above ground cable jointing building is required outside the entrance to the Woodhead tunnel within National Grid's existing operational compound. Cable jointing will be within gas insulated infrastructure which has no moving parts and there is no potential for operational noise from this equipment. It is therefore proposed to scope out the cable jointing building from the operational noise and vibration section of this chapter.

Sealing End Compounds (SECs)

- 15.34 The SEC forms the transition between the cables as they emerge from underground and the OHL wires (conductors). SECs do not vibrate or make noise when in operation. It is therefore proposed to scope out the new SEC from the operational noise and vibration section of this chapter.

Terminal Pylons

- 15.35 The construction of a terminal pylon, either adjacent to or within the new SEC, will be required to divert the existing OHL wires, via 'down droppers' onto the steel gantry within the SEC (see Figure 2.2). It is likely that the new terminal pylon will be located close to the location of a removed suspension pylon.
- 15.36 It may be necessary to reductor some spans of the existing 4ZO OHL back to the nearest tension pylon, although at present the requirement for this is undetermined.
- 15.37 The new terminal pylon, associated fixtures and fittings and conductors may be a 'tower' or 'gantry' design. All designs will comply with present-day type-registration requirements.
- 15.38 Terminal pylons, conductors and their associated fixtures and fittings do not vibrate in operation and hence it is proposed to scope out operational vibration from terminal pylons, conductors and fixtures and fitting.
- 15.39 The principal source of noise from most OHLs is a phenomenon known as 'corona discharge'. Corona discharge is a function of surface electrical stress. For this design of

OHL the level of electrical stress is low and hence there is low potential for operational noise, meaning it will operate quietly under most conditions.

- 15.40 The noise characteristic of the existing OHL and terminal pylon is most likely to be associated with the fixtures and fittings – principally the insulators which hold the wires to the cross arms of the pylons. This noise is most likely to be heard during damp or wet weather as a ‘crackle’ or a ‘buzz’.
- 15.41 The noise characteristic of the new terminal pylons will be similar to the existing pylon as the fixtures and fittings will be of a similar type and design.
- 15.42 Pylon fittings, such as insulators, dampers, spacers and clamps are designed and procured in accordance with a series of National Grid Technical Specifications. The technical specifications define National Grid functional and performance requirements for new equipment associated with electricity transmission.
- 15.43 To be approved for use on the National Grid high voltage electricity transmission network, each design must be Type Registered. Type Registration comprises a series of tests on the fitting in question to ensure compliance with the relevant technical specification. These tests include performance requirements to test for the absence of corona and audible noise on all fittings along with wind tunnel testing of insulators for the absence of audible tones generated by Aeolian mechanisms.
- 15.44 Once a piece of equipment has been type registered and approved for use, a number of further tests are carried out post-manufacture in the form of Sample Testing. This ensures the fitting conforms to the specification in the type registration documentation.
- 15.45 The Technical Specification and Type Registration processes include tests for the absence of corona discharge and audible noise and reduce the potential for audible noise and tones to occur from all types of fittings, including insulators. Where noise does occur it is likely to be localised and of short duration. If due to a fault appropriate actions can usually be taken to retrospectively remedy or mitigate the noise, usually through cleaning or replacement of the relevant fitting.
- 15.46 The SEC search area is remote from residential dwellings and the SEC is most likely to be close to an existing or removed suspension pylon, the closest distance to a noise sensitive receptor being approximately 200m away. It is extremely unlikely there will be any significant effects from operational noise at this distance.
- 15.47 However, until the final location of the new terminal pylon is known, and the requirement to reconductor a short section of the existing OHL determined, operational noise from the OHL including terminal pylon will remain scoped in.

Proposed Mitigation Measures (Part 2)

- 15.48 It is anticipated that all requirements for mitigation will be met through ‘mitigation by design’ by selecting the most appropriate technology and equipment for this scheme.
- 15.49 Mitigation measures for operational noise and vibration are not proposed since it is unlikely there will be any adverse effects due to this proposed scheme.

Issues to be Scoped Out (Part 2)

- 15.50 It is proposed to scope out operational vibration.
- 15.51 It is proposed to scope out operational noise from the underground cables, cable jointing building, SEC and pylon, fixtures and fittings, for this proposed scheme.

Part 3 - Summary and Conclusions

Construction and Decommissioning

- 15.52 Potential construction noise impacts affecting sensitive receptors in the vicinity of the proposed construction and decommissioning works have been identified. These would be assessed in accordance with relevant British Standards once the proposed alignment and location of SECs have been defined. Construction vibration would be assessed where any piling works are required close to sensitive receptors; otherwise then vibration due to construction works can be scoped out of this assessment, construction vibration will be scoped out, as no other significant sources of vibration are expected to be associated with the construction or decommission works.
- 15.53 Construction noise mitigation will be by means of the Construction Environmental Management Plan (CEMP). This will include the parameters which construction works should comply with.
- 15.54 If piling works are required, and predicted to result in significant vibration impacts on nearby receptors, consideration would be given to alternative piling methods, where possible, to mitigate these impacts.

Operation

- 15.55 As there are no sources of operational vibration proposed, it is proposed that operational vibration is scoped out the Environmental Statement.
- 15.56 Until further detail on the location of the terminal pylon and the potential requirement to reconductor some spans of the existing 4ZO OHL becomes available, operational noise from the OHL and terminal pylon will remain scoped in to the assessment. However it is anticipated that there will be no significant impacts through appropriate technology choice.
- 15.57 Overall, it is anticipated that the proposed scheme would result in a net reduction in operational noise due to the removal of the VIP subsection.

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16 Climate Change

Introduction

- 16.1 UKCP09 is the name given to the UK Climate Projections. These projections suggest that the UK will experience hotter, drier summers and warmer, wetter winters by the end of the century with regional variations of an average increase in summer temperatures of between 2.5°C and 4.5°C.
- 16.2 The report '*Adapting to Climate Change in the Peak District National Park*' produced in 2011 (Peak District National Park Authority, 2011), gave expected climate change risks and opportunities within the National Park. These risks are varied and include potential changes to key species from temperature increase, potential increase in moorland fire risk and seasonality of limestone rivers and streams. Increased rainfall intensity may also result in flooding and soil erosion. Renewable energy resources (for example wind or solar) may also potentially affect the landscape fabric of the Park.
- 16.3 The Barnsley Metropolitan Borough Council (BMBC) draft Local Plan 2016 (BMBC, 2016) also sets out the challenges of climate change and policy solutions covering aspects such as flood risk, sustainable construction and drainage systems, but recognises that climate change cuts across many other aspects of the Local Plan.
- 16.4 The ES will address the potential climate change effects associated with the construction, operation and decommissioning phases of the proposed scheme, to include associated mitigation measures as appropriate.
- 16.5 Climate change effects that would be considered include flood risk and changes to ground conditions (e.g. shrinkage / land slips) and would be addressed within the technical chapters, where appropriate.

Potential Impacts

- 16.6 There is the potential for contributions to localised flooding to occur both during and after the construction phase through the introduction of hard surfaces (e.g. SEC compounds), or from changes to soils structure/ permeability (e.g. locations of underground cabling).
- 16.7 There are also potential operational and maintenance issues associated with extreme weather conditions, although this is less likely to be an issue with underground cabling than the existing OHL.
- 16.8 Similarly, earth movement or subsidence caused by flooding and drought can be a concern for underground cables and this would be informed by geological, hydrological and hydrogeological studies.

Proposed Assessment Methodology

- 16.9 The ES will consider the effects of a changing climate on the proposed scheme and the likely effects of the proposed scheme on the environment that is adapting to climate change. It will set out to what extent the proposed scheme is expected to be vulnerable and resilient to the following factors:

- Flooding – This will be informed by the assessment carried out for Chapter 8, Water Resources; and
- Earth movement or subsidence caused by flooding and drought (for underground cables).

Proposed Mitigation Measures

16.10 Any adaptation measures would be based on the latest set of UK Climate Projections (DECC and DEFRA, 2009), relevant risk assessments for the locality and discussions with the relevant authorities, e.g. the Environment Agency.

Issues to be Scoped Out

16.11 Issues proposed to be scoped out include:

- Operational and maintenance issues associated with the underground cable elements.

17 Sustainability

- 17.1 Sustainability will be considered throughout the EIA and addressed within each technical chapter, rather than as an individual chapter.
- 17.2 National Grid's commitment to sustainability is set out in '*Our Contribution: A framework for environmental sustainability in National Grid*' which defines the company's environmental sustainability ambition and sets out specific and measurable targets to achieve this ambition (National Grid, 2013). Focus is on three areas:
- **Climate positive** - Facilitating the transition to a low-carbon energy economy and reducing our own carbon footprint;
 - **Positive about resources** - Removing waste and inefficiency from everything we do, minimising our impact on the environment; and
 - **Enhancing ecosystems** - Using our land and our natural assets for good, benefiting biodiversity, ecosystems and communities.
- 17.3 The section on enhancing ecosystems is most pertinent to this proposed scheme:
- Our assets, operations and infrastructure have an impact on the natural environment. Regulations require us to mitigate this impact but through innovative approaches we have a real opportunity to create something special for our business, communities and society as a whole – the Natural Grid.
 - As a landowner, we will work and partner with others to use our land and our natural assets for good, benefiting biodiversity, ecosystems and communities. We will engage with communities and our people to make sure we respect and preserve what we all value, and enhance what we have for future generations.
 - Our aim is to provide a natural grid of better and bigger habitats, connecting them to create wildlife corridors and biodiversity stepping stones alongside our network of energy assets. The Natural Grid adds ecological value, connects habitats, species and ecosystems and makes our contribution to the preservation, restoration and enhancement of the natural environment.
- 17.4 Sustainability assessment in the EIA will also include appropriate consideration of National Grid's seven themes for delivering their Environmental and Responsible Business commitments:
- Water conservation;
 - Air quality;
 - Greenhouse gas and climate change;
 - Contaminated land;
 - Waste, resources and energy efficiency; and
 - Compliance and environmental management systems.

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18 Glossary / Abbreviations

Glossary

	Description
Above Ground Infrastructure	These are structures, buildings and other that are above the ground.
Abstraction	Removal of water from surface water or groundwater, usually by pumping.
Abstraction Licence	Permission to abstract surface water or groundwater, subject to conditions laid down in the licence, issued by the relevant environmental regulator.
Adverse	Having a negative/harmful effect on something.
Agri-environmental Scheme	Agricultural and environmental schemes that provide funding to farmers and other land managers to deliver effective agricultural and environmental management on their land.
Alluvium	Material transported by rivers and deposited along its course.
Air Quality Management Area (AQMA)	An area where pollutant monitoring or modelling indicates that the national air quality objectives will not be met
Aquifer	A body of permeable rock that is capable of storing significant quantities of water; is undertaken by impermeable material, and through which groundwater moves.
Area of Search	The term given to a wide area within which the route corridors are identified.
Areas of Archaeological Interest	An area of archaeological interest often identified by a Local Plan.
Areas of Outstanding Natural Beauty	Areas designated by the Countryside Commission under the National Parks and Access to Countryside Act 1949 for their particularly attractive landscape and unspoilt character, which should be protected and enhanced as part of the national heritage.
Baseline	The conditions against which potential effects arising from the Scheme are identified and evaluated.
Beneficial	Conferring benefit; advantageous; helpful.

Biodiversity	The variety of life. The term embraces the full range of habitats, species, and the variation found within species (including genetic variation).
Catchment	The area from which water or runoff drains to a specified point (eg to a reservoir, river, lake, borehole).
Characteristics	The process of identifying areas of similar landscape character, classifying and mapping them and describing their character.
Compensation	Measures that offset the damage caused by a development, e.g. creation of new habitat.
Conservation Area	Designated by local authorities on account of its special architectural or historic interest, the character and appearance of which it is intended to preserve and enhance.
Corridor	Search area used to provide a degree of flexibility in which to develop a route proposal.
Cumulative Effects	The effects on a receptor when effects from all sources are considered together.
Designated Landscape	Areas of landscape identified as being of importance at international, national or local levels, either defined by statute or identified in development plans or other documents.
Dewatering	The removal of groundwater/surface water to lower the water table or to empty an area, such as an excavation, of water.
Direct Effect	An effect that is directly attributable to the proposed development.
Distribution	The geographical area within which a species can be found, or the arrangement or spatial pattern of a species over its habitat.
Dust	all particulate matter up to 75 µm in diameter and comprising both suspended and deposited dust
Ecology	The study of interactions between organisms and their environment.
Element	A component part of the landscape for example, trees, hedges and buildings.
Emergence (in relation to bat surveys)	A bat exiting its roosting site at dusk.
Enhancement	Measures that can increase and improve habitats for plants and animals.
Environment Agency Flood Zone 1	Flood Zone 1 - land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).
Environment Agency Flood Zone 2	Flood Zone 2 - land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1% - 0.1%), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding (0.5% - 0.1%) in any year.

Environment Agency Flood Zone 3	Flood Zone 3 - land assessed as having a 1 in 100 or greater annual probability of river flooding (>1%), or a 1 in 200 or greater annual probability of flooding from the sea (>0.5%) in any year.
Environmental Impact Assessment	The process by which the impacts of a proposed development upon all aspects of the receiving environment are identified and analysed.
Environmental Statement	Document that reports the findings of an Environmental Impact Assessment.
Feature (landscape)	Particularly prominent or eye-catching elements in the landscape, such as tree clumps, church towers or wooded skylines or a particular aspect of the project proposal.
Flood Risk Assessment (FRA)	An assessment of flood risk from all sources to a development and the mitigation of that risk
Fluvial flooding	Fluvial flooding occurs when rivers overflow and burst their banks, due to high or intense rainfall which flows into them.
Funerary	Relating to a funeral or burial
Geology	The scientific study of the origin, history, and structure of the earth.
Groundwater	Defined by the EC groundwater Directive (80/68/EEC) as "all water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil".
Habitat	A type of landscape (e.g. wet woodland, lowland heathland) characterised by particular communities of vegetation and animals.
Heritage Asset	Heritage asset is defined in the NPPF as "A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. Heritage asset includes designated heritage assets and assets identified by the local planning authority (including local listing)."
Historical Battlefields	The English Heritage Register of Historic Battlefields identifies forty-three important English battlefields. Its purpose is to offer them protection and to promote a better understanding of their significance.
Hydraulic fluid	The medium by which power is transferred in hydraulic machinery.
Hydrogeology	The branch of geology that deals with water below the ground surface.
Iterative design process	The process by which project design is amended and improved by successive stages of refinement which respond to growing understanding of environmental issues.

Land cover	The surface cover of the land, usually expressed in terms of vegetation cover or lack of it.
Land Drainage	Artificial installation of land drainage to remove surplus water enabling farmers to cultivate and farm the land over a wider time period.
Landform	The shape and form of the land surface which has resulted from a combination of geology, geomorphology, slope, elevation and physical processes.
Landscape	An area, as perceived by people, the character of which is the result of the action and interaction of natural and/or human factors.
Landscape and Visual Impact Assessment	A tool used to identify and assess the likely significance of the effects of change resulting from development both on the landscape as an environmental resource in its own right and on people's views and visual amenity.
Landscape Character Areas	Areas of the landscape defined by their physical and cultural elements.
Landscape receptors	Defined aspects of the landscape resource that have the potential to be affected by a proposal.
Landscape value	The relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons.
Listed Buildings	Grade I buildings are of exceptional interest, sometimes considered to be internationally important. Grade II* buildings are particularly important buildings of more than special interest. Grade II buildings are nationally important and of special interest.
Micro-tunnelling	A trenchless construction method for installing pipelines.
Mitigation (in relation to ecology)	Measures that reduce and/or minimise effects on habitats or species.
National Nature Reserve	Designated areas by Natural England that represent many of the finest wildlife and geological sites in the country.
Nature Conservation	The conservation of habitats and species. Usually includes the protection through legislation or designation of species, habitats and sites of nature conservation importance.
Nature Conservation Value	Measure of the nature conservation of a particular site/feature/species.
Ordinary Watercourses	Ordinary watercourses are those watercourses which do not form part of a main river. A lead local authority has permissive powers to carry out flood defence works for ordinary watercourses at their

	discretion.
Pathway	The route by which potential contaminants may reach receptors.
Phase 1 Habitat Survey	A nationally recognised system for allocating land into broad habitat types.
PM ₁₀ (particulate matter)	mass fraction of airborne particles of diameter of 10 µm or less.
Pollution Prevention Guidelines	Best practice guidelines set out by the Environment Agency to advise industry and public on legal responsibilities and good environmental practice.
Population	Any group of individuals, usually of a single species, occupying a given area at the same time.
Proximity Distance	The distance the pipeline can be located to property, structures and populated areas.
Ramsar site	A site as set out in the Ramsar Convention (Convention on Wetlands of International Importance, especially as Waterfowl Habitats) (1971).
Receptor	Any defined feature that is sensitive to or has the potential to be subject to an effect.
Registered Parks and Gardens	The Register of Parks and Gardens of special historic interest in England contains nearly 1450 sites and is maintained by, English Heritage.
Residual Effects	Environmental effects remaining after mitigation measures have been implemented.
Riparian	Terrestrial habitat associated with a watercourse (river or stream).
River Basin Management Plan	Documents that outline measures and targets to improve the quality of rivers, estuaries, coasts and aquifers.
Route Corridor	Search area used to provide a degree of flexibility in which to develop a route proposal.
Route Corridor Study	An appraisal of the high-level planning and environmental constraints to identify potential route corridor options within a defined Area of Search.
Runoff	The water from rain, snowmelt or irrigation that flows over the land surface and is not absorbed into the ground, but which instead flows into streams or other surface waters of land depressions.
Scheduled Monuments	An archaeological site of national importance, which is included on a schedule compiled by the Secretary of State for National Heritage under the terms of the Ancient Monuments and Archaeological Areas act 1979 (as amended by the National Heritage Act 1983).

Site of Importance for Nature Conservation (SINC)	Non-statutory sites of local or district importance for nature conservation, identified by local councils and wildlife trusts.
Sites of Special Scientific Interest (SSSI)	An area of land of special interest by reason of its flora, fauna, geology or physiographical features notified under section 28 of the Wildlife and Countryside Act 1981.
Source	The activity or process producing a hazardous substance or contaminant that may adversely impact a receptor via a pathway.
Source Protection Zone	Designated protection area around drinking water supplies.
Special Area for Conservation (SAC)	Special Area for Conservation (SAC), designated as European Sites (Natura 2000) under the Habitats Directive. The listed habitat types and species are those considered to be most in need of conservation at a European level (excluding birds).
Special Protection Area (SPA)	Areas selected by the national government on the advice of English Nature, designated for the protection of particularly sensitive bird species, or for regularly migrating birds.
Species	A taxonomic group into which a genus is divided, the members of which are capable of interbreeding.
Strata	A layer of rock or soil.
Surface Water	Water that appears on the land surface that has not seeped into the ground, i.e. lakes, rivers, streams, standing water, ponds, precipitation.
Topography	The physical features or configuration of a land surface.
Traffic Management Plan	It sets out how traffic will be managed at all stages during a construction project.
Tranquillity	A state of calm and quietude associated with peace, considered to be a significant asset of landscape.
Transect	A set path used to count and record occurrences of a particular species (e.g. bats). It is standardised so that it is repeatable.
Tree Preservation Order	Tree Preservation Orders are made under the Town and Country Planning Act 1990 to protect trees.
Vibration	Vibration is used to describe the transmission of energy through solid media by oscillation.
Visibility	The state or fact of being visible.

Visual Amenity	The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
Visual Receptors	People with views of the development or associated activities. These are located within the zone of theoretical visibility and are typically residents, motorists, pedestrians, recreational users in residential areas on publicly accessible roads, footpaths and open spaces.
Workability	This ease with which soils can be worked; and effects upon the restoration process over the working width. It is related to soil drainage status, soil texture, local climate and, therefore, to the safe working period and is closely associated with the trafficability considerations.
World Heritage Site	Places of 'outstanding universal value' selected by the United Nations Educational, Scientific and Cultural Organisation (UNESCO). Sites can be selected because they contain important cultural or natural features.
Zone of Influence	The area/resources that may be affected by the biophysical changes caused by activities associated with a project.
Zone of Theoretical Visibility	A map, usually digitally produced, showing areas of land within which a development is theoretically visible.

Acronyms

Acronym	Meaning
ALC	Agricultural Land Classification
AQAP	Air Quality Action Plan
AQMA	Air Quality Management Area
AAVT	Annual Average Daily Traffic
ACD	Anti-Climb Device
AONB	Area of Outstanding Natural Beauty
AURN	Automatic Rural and Urban Network
BMBC	Barnsley Metropolitan Borough Council
BMV	Best and Most Versatile
BAP	Biodiversity Action Plan
BGS	British Geological Survey
BSI	British Standards Institution
CPRE	Campaign for Rural England
CIFA	Chartered Institute of Archaeology
CIEEM	Chartered Institute of Ecology and Environmental Management
c.	Circa / approximately
CoCP	Code of Construction Practice
CEMP	Construction Environment Management Plan
CIRIA	Construction Industry Research and Information Association
CoPA	Control of Pollution Act 1974
CLR	Contaminated Land Report
CRoW	Countryside and Rights of Way Act 2000
CS	Countryside Stewardship
DCLG	Department for Communities and Local Government
DECC	Department for Energy & Climate Change

DEFRA	Department for Environment Fisheries and Rural Affairs
DfT	Department for Transport
DMRB	Design Manual for Roads and Bridges
DNO	Distribution Network Operator
EclA	Ecological Impact Assessment
EMF	Electronic Magnetic Fields
ELS	Entry Level Stewardship
EA	Environment Agency
EIA	Environmental Impact Assessment
ES	Environmental Statement
EC	European Commission
ELC	European Landscape Convention
EPSML	European Protected Species Mitigation Licence
ELF	Extremely Low frequency
FRA	Flood Risk Assessment
GIS	Geographic Information System
GPA	Good Practice Advice
GLVIA	Guidelines for Landscape and Visual Impact Assessment
GPLC	Guiding Principles for Land Contamination
HIS	Habitat Suitability Index
HGV	Heavy Goods Vehicle
ha	Hectare
HEGS	Hedgerow Evaluation and Grading System
HDPE	High Density Polyethylene
HLS	Higher Level Stewardship
HA	Highways Agency
HE	Historic England
IEMA	Institute of Environmental Management & Assessment

ISO	International Organization for Standardization
JNCC	Joint Nature Conservation Committee
km	Kilometres
kV	Kilovolts
LVIA	Landscape and Visual Impact Assessment
LCA	Landscape Character Areas
LCT	Landscape Character Types
LGVs	Light Goods Vehicles
LBAP	Local Biodiversity Action Plans
LDF	Local Development Framework
LDP	Local Development Plan
LEC	Local Enterprise Partnership
LTP	Local Transport Plan
LWS	Local Wildlife Site
LSOA	Lower Super Output Area
m	Metre
$\mu\text{g}/\text{m}^3$	micrograms (millionths of a gram) of air pollutant per cubic metre of air
mm	Millimetres
MAFF	Ministry of Agriculture, Food and Fisheries
MAGIC	Multi-Agency Geographic Information for the Countryside
NCA	National Character Areas
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NVC	National Vegetation Classification
NE	Natural England
NERC	Natural Environment and Rural Communities

NPSE	Noise Policy Statement for England
NRMM	Non Road Mobile Machinery
NTS	Non Technical Summary
No.	Number
Ofgem	Office of Gas and Electricity Markets
ONS	Office of National Statistics
OAS	Open Access Land
OPS	Options Appraisal Study
OD	Ordnance Datum
OS	Ordnance Survey
NGR	Ordnance Survey National Grid Reference
OELS	Organic Entry Level Stewardship
EN-1	Overarching National Planning Statement for Energy
OHL	Overhead Line
PDNPA	Peak District National Park Authority
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
PPG	Pollution Prevention Guidelines
PRoW	Public Rights of Way
PEA	Preliminary Ecological Appraisal
RSPB	Royal Society for the Protection of Birds
SEC	Sealing End Compound
SINC	Site of Importance for Nature Conservation
SSSI	Site of Special Scientific Interest
SNCI	Sites of Nature Conservation Importance
SCR	Sheffield City Region
SPZs	Source Protection Zones
SAC	Special Area of Conservation

SAG	Stakeholder Advisory Group
SPA	Special Protection Area
SRG	Stakeholder Reference Group
km ²	Square kilometre
LI	The Landscape Institute
TMP	Traffic Management Plan
TA	Transport Assessment
UXB	Unexploded Bomb
UXO	Unexploded Ordnance
UK	United Kingdom
UKSO	United Kingdom Soil Observatory
VIP	Visual Impact Provision
WFD	Water Framework Directive
WFDa	Water Framework Directive Assessment
WebTAG	Web-based Transport Analysis Guidance
ZTV	Zone of Theoretical Visibility

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Appendices

Appendix A: Preliminary Ecological Appraisal (PEA)

Appendix B: Certificate of Conformity to the EC Directive 89/336

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Appendix A: Preliminary Ecological Appraisal (PEA)

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Peak District East

Visual Impact Provision



Preliminary Ecological Appraisal

Revision schedule					
Rev	Date	Details	Prepared by	Reviewed by	Approved by
1	14/01/2016	First Issue to Client	Hannah Mitchell - Senior Graduate Ecologist GradCIEEM Clare Mcilwraith - Principal Ecologist MCIEEM	Lyndsey Spawforth – Principal Ecologist MCIEEM	Kevin Webb - Associate Director MCIEEM
2	11/02/2016	Second Issue to Client to incorporate comments	Clare Mcilwraith - Principal Ecologist MCIEEM	Kevin Webb – Associate Director CEcol	Kevin Webb – Associate Director CEcol
3	12/02/2016	Third Issue to Client – Review and Approval of Rev 2	Clare Mcilwraith - Principal Ecologist MCIEEM	Kevin Webb – Associate Director CEcol	Kevin Webb – Associate Director CEcol
4	05/04/2016	Limitations updated	Daniel Ellis Assistant Environmental Consultant	Clare Mcilwraith - Principal Ecologist MCIEEM	Kevin Webb – Associate Director CEcol
5	06/07/2016	Further issue to Client – minor updates	Clare Mcilwraith - Principal Ecologist MCIEEM	Hannah Procter Senior Ecologist MCIEEM, AIEMA	Kevin Webb Associate Director CEcol

This report has been prepared and provided in accordance with the Code of Professional Conduct of the Chartered Institute of Ecology and Environmental Management.

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The conclusions and recommendations contained in this Report take into account information provided by the Client about the project and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by AECOM has not been independently verified by AECOM, unless otherwise stated in the Report.

The methodology adopted and the sources of information used by AECOM in providing its services are outlined in this Report. The work described in this Report was undertaken between October 2015 and April 2016, and is based on the conditions encountered and the information available during that period. The scope of this Report and the services are accordingly factually and therefore may be limited by these circumstances as detailed in Section 3.2.3.

Where assessments of works or costs identified in this Report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available.

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Where field investigations are carried out, these have been restricted to a level of detail required to meet the stated objectives of the services. The results of any measurements taken may vary spatially or with time and further confirmatory measurements should be made after any significant delay in issuing this Report.

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Executive Summary

AECOM were instructed by National Grid (NG) to carry out a Preliminary Ecological Appraisal (PEA) of land located to the eastern end of the Woodhead Tunnel at Dunford Bridge, South Yorkshire. The PEA was undertaken in relation to the Peak District East Visual Impact Provision (VIP) Project, involving the potential undergrounding of a 1.6 km section of the 4ZO overhead line (OHL) cables and installation of associated supporting infrastructure.

The aim of the PEA was to identify potential ecological constraints and opportunities that may guide selection of the undergrounding proposals and inform what mitigation may be required for any identified effects. It is not intended to present a comprehensive survey of all ecological receptors within a defined ecological survey area. Rather, the PEA is intended to provide an indication of likely potential ecological constraints present and the requirement for further ecological surveys that would need to be addressed as part of an Environmental Impact Assessment (EIA) and mitigation design to support a planning application for the proposals.

The ecological survey area applied to this PEA followed the prospective area where the overhead line may be undergrounded, plus a 250 m buffer zone to account for protected species and habitats in the wider zone of influence. The far west of the ecological survey area is located south of Winscar Reservoir and west of Dunford Bridge. From Dunford Bridge the ecological survey area follows the Trans-Pennine Trail and River Don for approximately 2.2 km to Wogden Bottom. To the north, the ecological survey area skirts Windle Edge/Brook Hill Lane until it reaches Townhead where the boundary runs through farmland until approximately Eltock Farm/Quarry Hill at its eastern extent. The far south of the ecological survey area runs slightly north of Lower Windleden Reservoir and runs east through Thurlstone Moors. The ecological survey area is shown on Figure 1.

In brief the ecological survey area consists of a variety of habitats including woodland (coniferous plantation, mixed plantation and broadleaved woodland), scrub, grassland (improved, poor semi-improved, semi-improved and unimproved), arable dry heath/acid grassland mosaic, bracken (*Pteridium aquilinum*) stands, amenity grassland, standing water and running water. The principal feature within the ecological survey area is the central corridor of the former railway line and the River Don on its northern side. The former railway line route now comprises the Trans-Pennine Trail long distance footpath/cycleway. The trail route, sitting at the lowest valley point within the ecological survey area, extends from Dunford Bridge and continues eastwards through the centre of the ecological survey area as far as Wodgen Bottom. This trail is predominantly enclosed by broadleaved woodland for the majority of its length through the ecological survey area and comprises of a formalised gravel track. The majority of this woodland is semi-mature and unlikely to contain bat roost potential however areas of the ecological survey area to either side of the trail where woodland is interspersed with grassland, scrub and heath does provide suitable habitat for reptiles. The area of land to the southern side of the trail, which is rising open moorland predominantly comprises dry heath/acid grassland and bracken mosaic with areas of unimproved acid grassland intersperse with a number of small tributaries (dikes/cloughs) identified by areas of habitat more consistent with marshy grassland.

More formalised fields bounded by stone walls are located on the northern side of the River Don consisting of improved grassland, poor semi-improved grassland, semi-improved grassland and a small field of arable. The far west of the ecological survey area is dominated by an area of plantation woodland both coniferous and mixed plantation woodland, located between this and the start of the Trans-Pennine Trail is Dunford Bridge village, with associated houses and small farmsteads and the associated roads, gardens and outbuildings.

With the exception of Peak District National Park, there are no other statutory designated sites for nature conservation entirely or partially located within the ecological survey area. The ecological survey area however lies approximately 100 m at its nearest point to the east of the South Pennine Moors Special Area of Conservation (SAC) and Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA), both of which are international designated sites. Furthermore these sites also partially include an area designated at a national level; Dark Peak Site of Special Scientific Interest (SSSI). Two non-statutory designated sites; Wogden Foot and Western Moors Local Wildlife Sites (LWS) are partially located within the ecological survey area.

Habitats and features which may support protected or notable species were identified within the ecological survey area. Nine waterbodies were identified within the ecological survey area which were subject to habitat suitability assessments

and concluded to provide suitable habitat to support great crested newt (*Triturus cristatus*). A number of mature trees located along the river corridor and within fields to the north, along with other structures such as the Woodhead Tunnel itself and a number of small culverts beneath the TPT were identified as having potential to support roosting bats. The River Don provides potential habitat for otter (*Lutra lutra*) (and to a lesser extent water vole (*Arvicola amphibius*)) and the woodland, scrub and grassland area of the site will support overwintering and breeding birds. Although stakeholder feedback in an earlier phase of the project highlighted the presence of badgers close to Wogden Foot, no setts were identified within the ecological survey area during the completion of the PEA. However a detailed badger survey was not conducted and it is recognised that the ecological survey area provides suitable habitat to support badger (*Meles meles*). Heathland, grassland and scrub habitat suitable to support reptiles is also present within the ecological survey area. Rhododendron (*Rhododendron ponticum*); which is classified as an invasive non-native species was identified within the ecological survey area with large continuous stands in some areas.

Based upon the findings of the PEA, a suite of Phase 2 ecological surveys have been recommended to determine the status of these legally protected and notable species within the ecological survey area, these comprise:

- Badger - suitable habitat present for this protected species;
- Bats - bat roost potential assessments of suitable features (structures, including Woodhead Tunnel, culverts and trees) and subsequent bat surveys (activity and roost);
- Reptile - suitable habitat present within the ecological survey area and desk study records indicated likely presence of common species;
- Great crested newt – suitable aquatic and terrestrial habitat identified within the ecological survey area;
- Otter (and water vole) – River Don provides suitable habitat for this European protected species within the ecological survey area; records of water vole provided by the desk study on the smaller adjoining tributaries;
- Invertebrates – Records of species of notable interest have been provided by the desk study and Wogden Foot LWS supports habitats which are of interest for terrestrial invertebrates, including potential to support glow worm (*Lampyris noctiluca*).
- Breeding birds – Peak District Moors (South Pennine Moors Phase 1) SPA is primarily designated for breeding merlin (*Falco columbaris*), golden plover (*Pluvialis apricaria*) and short-eared owl (*Asio flammeus*), in addition to habitats within the ecological survey area which are likely to support other legally protected and notable species;
- Wintering birds – habitat suitable to support overwintering bird species of conservation concern is present within the ecological survey area, proximity to SPA and SSSI; and
- Non-native invasive species – rhododendron recorded within the ecological survey area.

Due to the time of the year the survey was conducted, a Phase 2 detailed vegetation survey (e.g. a National Vegetation Classification (NVC) survey) during the spring/summer is recommended in certain specific parts of the ecological survey area e.g. within Wogden Foot LWS and along the Trans-Pennine Trail subject to the layout/location of the undergrounding works.

The specific scope and extent of the recommended Phase 2 surveys will also need to take into account the layout/location of the proposals as well as the proposed construction methods which may be employed and the land take required for such work.

These surveys are recommended in order to provide a robust baseline to support an EIA, within which opportunities for ecological mitigation and enhancement will be explored fully.

1 Introduction

AECOM was instructed by National Grid to carry out a Preliminary Ecological Appraisal (PEA) of land located to the eastern end of the Woodhead Tunnel at Dunford Bridge, South Yorkshire. The PEA was undertaken in relation to the Peak District East Visual Impact Provision (VIP) Project, involving the potential undergrounding of a 1.6 km section of the 4ZO overhead line (OHL). The boundary of the ecological survey area which extends to a total approximate area of 187.5 ha is shown on Figure 1 (centred approximately on Ordnance Survey grid reference SE16540244).

This PEA was commissioned to identify whether there are actual or potential ecological receptors (nature conservation designations, and protected and notable habitats and species) that may constrain or influence the design and implementation of the proposed undergrounding project. The approach applied when undertaking this PEA accords with the *Guidelines for Preliminary Ecological Appraisal* published by the Chartered Institute of Ecology and Environmental Management (CIEEM 2012). The PEA addresses relevant wildlife legislation and planning policy as summarised in Section 2 of this report.

Three frames of geographical reference, as shown on Figure 1 were used during the completion of the PEA:

- Search Area for Permanent Development – comprises the area within which the underground cabling and the sealing end compound may occur as defined by the EIA screening request. Based on current knowledge, this search area has been drawn sufficiently wide enough to take account of potential route alignment options;
- Ecological Survey Area – an area of land encompassing the Search Area for Permanent Development and up to a 250 m buffer (unless physical barriers exist) to account for protected species and habitats in the wider zone of influence. This is the land which was subject to the Extended Phase 1 Habitat Survey and faunal assessments; and
- Ecological Study Area - This comprises of a radius of 2 km (statutory sites) and a 1 km radius (non-statutory sites and protected and notable species records) from the Ecological Survey Area.

The potential zone of influence applied was defined with reference to the proposed scheme description and professional guidance for PEA. The areas seek to consider the potential distance of sites, habitats or species that may be affected by from the proposed scheme e.g. the terrestrial habitats within which great crested newt may disperse from a breeding pond.

In order to inform the PEA, an ecological desk study and an extended Phase 1 habitat survey were undertaken by appropriately experienced ecologists, to identify ecological features within the survey area and the wider potential zone of influence of the proposed project where relevant. The potential zone of influence was defined with reference to the project description provided by National Grid, and considers the potential distance from the work and the habitats or species present that may be affected by those works e.g. the terrestrial habitats for great crested newt.

The objectives of the PEA were to:

- identify and categorise all habitats present within the ecological survey area and any areas immediately outside of the ecological survey area where there may be potential for direct or indirect effects (the “zone of influence”);
- carry out an appraisal of the potential of the habitats recorded within the ecological survey area to support protected or notable species of fauna and flora;
- provide advice on any potential ecological constraints and opportunities to the proposed scheme, including the identification of any requirements for follow-up habitat and species surveys and/or requirements for ecological mitigation; and
- provide a map showing the habitat types present and location of the identified ecological receptors of relevance.

The purpose of this report is to provide a high level appraisal of the ecological risks and opportunities associated with the proposed undergrounding works from the desk study and field survey undertaken. The report identifies the scope of further work (where necessary) that would be required to support a planning application. High level recommendations are made on potential options for the avoidance, mitigation or compensation of the potential impacts of the proposed undergrounding works (where known) on the identified ecological receptors and of potential enhancements to the biodiversity and ecosystem services.

2 Wildlife Legislation and Planning Policy

2.1 Wildlife Legislation

The following wildlife legislation is potentially relevant to the proposed project:

- The Conservation of Habitats & Species Regulations 2010 (as amended);
- Wildlife and Countryside Act (WCA) 1981 (as amended);
- Countryside and Rights of Way (CROW) Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992; and
- The Hedgerow Regulations 1997.

The above legislation has been considered when planning and undertaking this PEA using the methods described in Section 3, when identifying potential constraints to the proposed undergrounding project, and when making recommendations for further survey, design options and mitigation, as discussed in Section 5. Compliance with legislation may require the attainment of relevant protected species licences prior to the implementation of the proposed works. Further details of the above legislation are provided as Appendix A.

2.2 National Planning Policy

The National Planning Policy Framework (NPPF) was published in 2012 and details the Government's planning policies for England and how these are expected to be applied.

The NPPF states the commitment of the UK Government to minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity. It specifies the obligations that the Local Authorities and the UK Government have regarding statutory designated sites and protected species under UK and international legislation and how this is to be delivered in the planning system. Protected or notable habitats and species can be a material consideration in planning decisions and may therefore make some sites unsuitable for particular types of development, or if development is permitted, mitigation measures may be required to avoid or minimise impacts on certain habitats and species, or where impact is unavoidable, compensation may be required. Further information on the relevant parts of the NPPF is provided as Appendix A.

Biodiversity 2020: A strategy for England's wildlife and ecosystems services (DEFRA, 2011) set out the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea.

2.3 Local Planning Policy

Relevant local planning policies to the ecological survey area are detailed in the following documents, and subsequent Supplementary Planning Documents:

- Barnsley Local Development Framework, Core Strategy, Adopted September 2011; and
- Peak District National Park Local Development Framework, Core Strategy Development Plan Document, Adopted October 2011.

Table 2.1 provides a summary of relevant local planning policies. For the precise wording of each specific policy please refer back to the source document. This planning policy has been considered when assessing potential ecological constraints and opportunities identified by the desk study and field surveys; and, when assessing requirements for further survey, design options and ecological mitigation, as described in section 5.

Table 2.1: Summary of Local Planning Policy

Document	Planning Policy	Purpose
Barnsley Local Development Framework	CSP 36: Biodiversity and Geodiversity	Development will be expected to conserve and enhance the biodiversity and geological features of the borough by: <ul style="list-style-type: none"> • Protecting and improving habitats, species and sites of ecological value with particular regard to designated wildlife sites of international, national and local significance, ancient woodland and species and habitats of principal importance.

Document	Planning Policy	Purpose
		<ul style="list-style-type: none"> Maximising biodiversity opportunities in and around new developments. <p>Development which may harm a biodiversity feature will not be permitted unless effective mitigation and/or compensatory measures can be ensured.</p>
Peak District National Park Local Development Framework	L2: Sites of biodiversity or geodiversity importance	<ul style="list-style-type: none"> Development must conserve and enhance any sites, features or species of biodiversity importance and where appropriate their setting. Development will not be permitted where it is likely to have an adverse impact on any sites, features or species of biodiversity importance that have statutory or are of international or national importance for their biodiversity.

Barnsley and The Peak District have developed local Biodiversity Action Plans (BAP) that identify habitats and species of principal importance, in line with the UK Post-2010 Biodiversity Framework (JNCC and DEFRA, 2012). These habitats and species are noted where relevant in Section 4 of this report.

3 Methods

3.1 Desk Study

A desk study was carried out to identify nature conservation designations, and existing records for protected and notable habitats and species potentially relevant to the ecological survey area. The findings are discussed in Section 4 of this report and the relevant protected and notable species records provided by the desk study sources are provided as Appendix B.

The desk study identified statutory international, national and local nature conservation designations within 2km, and local non-statutory nature conservation designations, protected and notable habitats and species within 1km of the ecological survey area. These distances were assigned in accordance with the PEA guidelines as effects on ecological receptors are currently considered unlikely to occur beyond this distance given the nature of the scheme. In the case of designated sites with a surface water pathway connecting them to the site, the distance has been extended to reflect the fact that effects could occur over a greater distance. These search areas for the desk study are referred to in this report as the ecological study area.

The desk study was carried out using the data sources detailed in Table 3.1. Further sources will be identified and accessed as needed to support species of habitat specific surveys during future stages of work (e.g. species specific organisations i.e. South Yorkshire Badger, Bat or Barnsley Bird Group). Protected and notable habitats and species include those listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); Schedules 2 and 4 of The Conservation of Habitat & Species Regulations 2010 (as amended); and species and habitats of Principal Importance for nature conservation in England listed under Section 41 of the NERC Act 2006. Records of non-native species were also collated; such species are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Table 3.1: Ecological desk study data sources

Data Source	Accessed/Contacted	Data Obtained
Multi-Agency Geographic Information for the Countryside (MAGIC) website	16 th November 2015	<ul style="list-style-type: none"> International statutory designations within 2 km Other statutory designations within 2 km
Ordnance Survey 1:2500 Pathfinder maps and aerial photography	16 th November 2015	<ul style="list-style-type: none"> Information on habitats and habitat connections (based on aerial photography) relevant to interpretation of planning policy and assessment of potential protected and notable species constraints
Peak District National Park Authority	20 th November 2015	<ul style="list-style-type: none"> Habitat Mapping Data Protected Species records including confidential bird species
Barnsley Biological Records Centre/ Barnsley Council	13 th November 2015	<ul style="list-style-type: none"> Non-statutory designations (including citations) within 1 km Protected and notable species records within 1km (records for the last 10 years only as data prior to this (2005) is considered less likely to be accurately representative of current survey site biodiversity) Phase 1 habitat mapping (received from Barnsley Biodiversity Officer) within ecological study area
NBN gateway	18 th November 2015	<ul style="list-style-type: none"> Protected species records

Data Source	Accessed/Contacted	Data Obtained
Peak District Biodiversity Action Plan (BAP) 2011-2020 Barnsley Biodiversity Action Plan (currently being revised and anticipated to be adopted in 2016) at http://barnsleybiodiversity.org.uk/biodiversity.html (Barnsley Biodiversity Trust)	16 th December 2015	<ul style="list-style-type: none"> • General information on Local BAP Priority Habitats and Species

3.2 Field Survey

The field survey comprised a Phase 1 habitat survey combined or 'extended' to determine the potential suitability of the habitats or features present within the ecological survey area to support protected and notable species.

3.2.1 Phase 1 Habitat Survey

A Phase 1 habitat survey was undertaken in accordance with the standard survey method (Joint Nature Conservation Committee (JNCC), 2010). Phase 1 habitat survey is a standard method of environmental audit. It involves categorising different habitat types and habitat features within an ecological survey area. The information gained from the survey can be used to determine the likely ecological value of a site, and to direct any more specific survey work which may need to be carried out prior to the submission of a planning application. The standard Phase 1 habitat survey method is "extended" to record target notes on protected, notable and invasive species.

The surveys were undertaken on 27th October, 3rd November and 9th December 2015 (and latterly on the 24th April 2016 within a specific parcel of land located at Townhead) by suitably qualified AECOM ecologists who recorded and mapped all habitat types present within the ecological survey area, along with any associated relevant ecological receptors observed. The ecological survey area encompassed the proposed search area for permanent development and at least a 250 m buffer to all potential areas of works (Figure 1 shows the extent of the ecological survey area). Within this ecological survey area all safely accessible parts were walked and mapped. Adjacent habitats to a maximum distance of 50 m, (where access permission had been granted in advance of survey, or this land was visible from within the ecological survey area or from publicly accessible areas) were surveyed.

Where notable habitats or features of potential interest (including those with potential to support protected or notable species were identified (see Section 3.2.2)) these were highlighted on the survey map as Target Notes. Brief Target Note descriptions are provided in Appendix C and the location/position of these are shown on the Phase 1 Habitat map (Figure 3). Typical and notable plant species were recorded for each habitat type recorded which reflect the conditions at the time of survey. The species information presented is not intended to be a comprehensive inventory of all plant species present in the ecological survey area, as this is not required for the purposes of Phase 1 habitat survey and it would not be appropriate to make such an inventory during the late autumn/winter.

3.2.2 Protected and Notable Species

During the Phase 1 habitat survey visits, an appraisal was made of the potential suitability of the habitats and features present within the ecological survey area to support legally protected and notable species of plants or animals (i.e. to which legislation or planning policy listed in Section 2 applies). Field signs, habitat features with potential to support protected species or actual sightings or auditory evidence were recorded when encountered, but no detailed surveys were carried out for any particular species.

Ponds located during the extended Phase 1 habitat survey where access to the pond itself was available were subject to an initial Habitat Suitability Index (HSI) assessment (Oldham et al., 2000) for their potential to support great crested newts (Appendix D).

A note was made of visible instances of invasive non-native plant species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), although the Phase 1 should not be taken to have recorded all instances of such species.

During the completion of the PEA the presence of features to support roosting bats were recorded. In addition to other features such as trees and buildings the presence of the Woodhead/Dunford Bridge tunnel and a number of culverts located within the ecological survey area (and the western end of the search area for proposed development) were identified. In order to determine the potential of the tunnel to support roosting bats a visual inspection of the tunnel entrance (and the interior of the tunnel which could be viewed from the entrance; approximately 10 m) was conducted on 25th January 2016 by two AECOM bat ecologists. The tunnel could not be accessed due to health and safety constraints.

The tunnel entrance and fascia walls were inspected from ground level for presence of cracks, crevices or potential roosting opportunity features and an assessment of the potential bat access made. Photographs of the internal walls of the tunnel were provided by National Grid for review.

Section 5 of this report identifies further requirements for species survey based on the results of the PEA. These surveys should be completed prior to submission of a planning application as the results are likely to be material for determination of the planning application

3.3 Desk Study and Field Survey Limitations

The aim of a desk study is to help characterise the baseline context of a proposed scheme and provide valuable background information to supplement the findings of the site survey visits. Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitats or species does not necessarily mean that the habitats or species do not occur in the ecological study area. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the proposed scheme.

The recording of plant species, including invasive non-native plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), was constrained by the time of year that the survey was undertaken. Many species are not visible or cannot be reliably mapped outside the growing season (May to September), and some species are only apparent during certain months. Populations of annual plant species may fluctuate markedly between years dependent on the growing conditions present in any given season. As such, some invasive or annual species may have been under recorded. This is not considered to be a constraint to the overall findings of the PEA since it is intended to be a high level preliminary report, but further survey work will be required in some areas to inform a planning application.

Where habitat boundaries coincide with physical boundaries shown on the base Ordnance Survey maps used in the field, the resolution is as determined by the scale of mapping. Elsewhere, habitat mapping is as estimated in the field and/or recorded by hand-held GPS. Where areas of habitat are given they are approximate and should be verified by measurement on site where required for design or construction.

4 Baseline Conditions

4.1 Nature Conservation Designations

Designated nature conservation sites located within the ecological desk study area are summarised in Table 4.1 and 4.2 and are shown on Figure 2.

4.1.1 Statutory Designations

Table 4.1 details the statutory nature conservation designations of sites identified by the desk study, based on the method given in Section 3.1 of this report. There are no statutory designated sites located within the ecological survey area. The nearest statutory designations within a 2km radius of the ecological survey area are summarized in Table 4.1. Citations for the statutory sites are provided in Appendix B.

Table 4.1: Sites with statutory designations for nature conservation

Designation	Reason(s) for Designation	Relationship to the Ecological Survey Area
South Pennine Moors Special Area of Conservation (SAC)	<p>Internationally important moorland principally designated for its Annex I habitats of European dry heath, blanket bogs and old sessile oak (<i>Quercus petraea</i>) woods with holly (<i>Ilex</i>) and fern (<i>Blechnum</i>).</p> <p>The site is representative of upland dry heath at the southern end of the Pennine range, the habitat's most south-easterly upland location in the UK. Dry heath covers extensive areas, occupies the lower slopes of the moors on mineral soils or where peat is thin, and occurs in transitions to acid grassland, wet heath and blanket bogs.</p>	The boundary of the SAC is located approximately 160m west of the ecological survey area (and approximately 280m to the search area for permanent development) at its closest point, separated by plantation woodland.
Peak District Moors (South Pennine Moors Phase 1) Special Protection Area (SPA)	<p>Internationally important moorland designated for its Annex I breeding species:</p> <ul style="list-style-type: none"> • golden plover (at least 1.9% of the GB breeding population), • merlin at least 2.3% of the GB breeding population Count as at 1990 and 1998; and • short-eared owl (at least 2.2% of the GB breeding population Count, as at 1990 and 1998. 	The boundary of the SPA is located approximately 160m west of the ecological survey area (and approximately 280m to the search area for permanent development) at its closest point, separated by plantation woodland.
Dark Peak Site of Special Scientific Interest (SSSI)	<p>The Dark Peak SSSI comprises a combination of plateaux blanket mires; wet and dry heaths and acid grasslands, together with associated flushes and mires on moorland slopes, represents an extensive tract of semi-natural upland vegetation typical of and including the full range of moorland vegetation of the South Pennines. Several vegetation types, plants and animals are at either the southern or northern limits of their distribution in this country.</p> <p>The vast blanket mires of the Dark Peak plateaux support nationally important breeding populations of golden plover <i>Pluvialis apricaria</i> (1.7% of the British population) and dunlin <i>Calidris alpina</i> (0.9% of the British population) as well as very significant numbers of meadow pipit <i>Anthus pratensis</i>, the most common passerine throughout the area. The SSSI also supports significant numbers of other bird species including breeding curlew <i>Numenius arquata</i> red grouse <i>Lagopus lagopus</i>, merlin (3.3% of the British population), short-eared owl <i>Asio flammeus</i> (1.1 % of the British population) and twite <i>Carduelis flavirostris</i>. The site also support important species of invertebrate including and two nationally scarce species, golden rod brindle <i>Lithomoia solidaginis</i> and small autumnal moth <i>Epirrita filigrammaria</i>. A nationally scarce hover fly <i>Eristalis rupium</i> has been recorded. The only known breeding site in the county of Derbyshire for the golden-ringed dragonfly <i>Cordulegaster boltonii</i> occurs within the SSSI..</p>	The boundary of the SSSI is located approximately 160m west of the ecological survey area (and approximately 280m to the search area for permanent development) at its closest point, separated by planation woodland.

Designation	Reason(s) for Designation	Relationship to the Ecological Survey Area
Statutory Sites Impact Zones	The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to: SSSIs, SACs and SPAs. They define zones around each site which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.	The western end of the ecological survey area lies within the 1km impact Risk Zone applies to the Dark Peak SSSI/ Peak District Moor SPA and South Pennine Moors SAC.

4.1.2 Non-statutory Designations

Two non-statutory nature conservations designations; Local Wildlife Sites (LWS) are present entirely or partially within the desk study area as detailed in Table 4.2 and shown on Figure 2. Citations for the LWS are provided in Appendix B.

Table 4.2: Sites with non-statutory designations for nature conservation

Designation	Reason(s) for Designation	Relationship to the Survey Area
Western Moors Local Wildlife Site (LWS)	<p>The Western Moors is a large expanse (3,400ha) of upland, part of the South Pennines. A range of habitats on the site include large areas of heather (<i>Calluna vulgaris</i>) moorland with bilberry (<i>Vaccinium myrtillus</i>) and locally abundant cloudberry (<i>Rubus chamaemorus</i>), a rare plant in the district. Bilberry is found with purple moor-grass (<i>Molinia caerulea</i>) and mat-grass (<i>Nardus stricta</i>) over some areas and bracken (<i>Pteridium aquilinum</i>) forms monospecific stands in patches on the moorland. A number of cloughs dissect the upland and it is mainly in these areas that species-rich acidic flushes occur dominated by Sphagnum species with cranberry (<i>Vaccinium oxycoccus</i>) and cross-leaved heath (<i>Erica tetralix</i>) and a variety of herbs and sedges.</p> <p>The breeding bird assemblage of these moors forms part of the nationally and internationally important South Pennine moorlands. Characteristic and important species are golden plover, curlew (<i>Numenius arquata</i>), dunlin, merlin, ring ousel (<i>Turdus torquatus</i>), twite (<i>Carduelis flavirostris</i>) and short-eared owl and red grouse (<i>Lagopus lagopus</i>), all Birds of Conservation Concern (BoCC).</p>	Partially located within the ecological survey area forming the majority of the land south of the Trans-Pennine Trail.
Wogden Foot LWS	<p>The LWS comprises a narrow strip of land that was formerly occupied by sidings on the disused Woodhead railway line.</p> <p>The site comprising of approximately 10.4ha is a mix of acidic, neutral and calcareous grassland habitats with scrub and broadleaved woodland, brought about by the addition of limestone ballast (originating from the adjacent dismantled railway) to this naturally acidic environment. This provides an area of biodiversity interest including, for example species such as cowslip (<i>Primula veris</i>), ploughman's spikenard (<i>Inula conyza</i>) and wild marjoram (<i>Origanum vulgare</i>), that is unusual in the Borough. The site also supports breeding bird species of Principal Importance include lesser redpoll (<i>Carduelis cabaret</i>), linnet (<i>Carduelis cannabina</i>), bullfinch (<i>Pyrrhula pyrrhula</i>), willow tit (<i>Poecile montana</i>), spotted flycatcher (<i>Muscicapa striata</i>), dunnoek (<i>Prunella modularis</i>) and song thrush (<i>Turdus philomelos</i>).</p>	LWS partially located within the central/eastern section of the ecological survey area alongside Trans-Pennine Trail.

4.2 Habitats

4.2.1 General Habitat Description

In brief the ecological survey area consists of a variety of habitats including woodland (coniferous plantation, mixed plantation and broadleaved), scrub, grassland (improved, poor semi-improved, semi-improved and unimproved), arable

dry heath/acid grassland mosaic, bracken stands, amenity grassland, standing water and running water. The Trans-Pennine Trail starts to the west of the main bridge in Dunford Bridge village and runs along a disused railway line through the middle of the ecological survey area. This trail is enclosed by two bands of broadleaved woodland for the majority of its length through the ecological survey area. The majority of this woodland is semi-mature comprising of silver birch (*Betula pendula*), goat willow (*Salix caprea*), elder (*Sambucus nigra*) and sycamore (*Acer pseudoplatanus*), and unlikely to contain significant bat roost potential. A hillside composed of predominantly dry heath/acid grassland and bracken mosaic is located to the south of the trail with areas of unimproved grassland, with areas consistent with marshy grassland or dominated entirely by bracken. These areas were suitable to support reptiles.

By contrast, more formalised sheep grazed farmland is located within the northern half of the ecological survey area consisting of predominantly improved grassland and poor semi-improved grassland. The majority of the field boundaries consist of traditional stone walls or post and wire fences where the walls may have been removed or where smaller paddocks have been created such as around Eltock Farm. Occasional mature trees (generally ash (*Fraxinus excelsior*) oak or alder (*Alnus glutinosa*)) are located along the field boundaries and in small pockets around the ecological survey area. An area comprising a vegetated spoil heap is located to the west of the ecological survey area, classified as bare ground/spoil, the banks and exposed rubble within this area (Target Note 6, Figure 3B) may be suitable to support reptiles. Also in the northern area is a small element of arable habitat and amenity grassland of the gardens and lawned areas associated with the residential properties. Furthermore, the far west of the ecological survey area is formed of plantation woodland both coniferous and mixed plantation woodland, located between this and the start of the Trans-Pennine Trail the habitat is mainly composed of houses and farms including their associated roads, gardens and outbuildings.

The River Don runs through the centre of the ecological survey area in an easterly flow direction originating from Winscar Reservoir, and comprising of a shallow channel watercourse with a stony channel substrate. The channel is approximately 3-4 meters in width with a moderate to fast flow at the time of the survey. The southern side of the watercourse is wooded and embanked up to the former railway line but has moderately sloping banks along its northern bank which are generally more open except for the occasional mature tree.

Nine waterbodies were identified within the ecological survey area, comprising a mixture of natural and created ponds, these ponds were identified as having the potential to support great crested newt as detailed below. The north-eastern end of the Lower Windleden Reservoir falls within the ecological survey area as well as a number of small streams or cloughs flowing down in small cuttings off the moorland to the south. There are some structures and trees within the site that may have the potential to support bat roosts, these include Woodhead Tunnel, several stone/brick culverts, Dunford Bridge road bridge, reinforced (former railway) embankments, artificial 'cliffs' and an old quarry works.

4.2.2 Phase 1 Habitat Types

The habitats recorded, their extent and distribution are detailed in Table 4.3 and shown on Figure 3 and insets Figure 3A, 3B, 3C and 3D. The areas stated are approximate only. The associated target notes are provided in Appendix C, illustrative photographs of habitats (and features) are provided in Appendix E. Relevant information from the desk study on particular habitats is noted in Table 4.3.

Table 4.3: Habitats present, in descending order based on spatial area occupied

Habitat	Brief description	Area (ha)	% of Survey Area
Dry heath/acid grassland mosaic	Heathland forms the majority of the south of the ecological survey area and forms part of Western Moors LWS. The dominant species is common heather and in parts bilberry.	61.62	32.9
Poor semi-improved grassland	Poor semi-improved grassland occurs within the northern part of the ecological survey area where improvement is reduced, resulting in a greater number of grass species present.	34.01	18.1
Improved grassland	This habitat forms the majority of the farmland to the north of the ecological survey area where the grassland has been improved for sheep and horse grazing, where perennial rye grass (<i>Lolium perenne</i>) is dominant.	31.00	16.5
Unimproved acid grassland	Unimproved acid grassland is located to the south-east of the ecological survey area and within Wogden Foot LWS. The dominant species within these swards is matt grass (<i>Nardus stricta</i>) and purple moor grass (<i>Molinia caerulea</i>).	17.90	9.5

Habitat	Brief description	Area (ha)	% of Survey Area
Broadleaved woodland	<p>Two bands of semi-mature broadleaved woodland enclose the Trans-Pennine Trail in between the River Don and Western Moors LWS. The dominate species within this woodland is silver birch with alder (<i>Alnus glutinosa</i>) dominating adjacent to the river. An area of broadleaved woodland is also located north of the river to the west of the ecological survey area (Target Note 1, Figure 2A).</p> <p>Woodland within Wogden Foot LWS (Target Note 33, Figure 3D) to the east of the ecological survey area forms a mix of semi-mature woodland and mature scrub species located within this area include hawthorn (<i>Crataegus monogyna</i>) and elder (<i>Sambucus nigra</i>) with a bramble (<i>Rubus fruticosus</i> agg.) understory.</p>	9.81	5.2
Semi-improved neutral grassland	This grassland is located adjacent to the Trans-Pennine Trail where improvement is limited. There is also a semi-improved neutral grassland field in the west of the ecological survey area adjacent to Brook Hill Lane.	6.08	3.2
Hardstanding	Areas of hard standing include roads and concreted areas.	5.93	3.2
Coniferous plantation woodland	Large plots of mature coniferous plantation woodland are located to the far west of the ecological survey area.	4.79	2.6
Mixed plantation woodland	Mixed plantation woodland is located to the far north-west of the ecological survey area and contains a variety of tree species.	3.27	1.7
Bracken	Dense swards of bracken occur in discrete patches throughout the ecological survey area where no, or limited grazing occurs.	2.62	1.4
Amenity grassland	Small discrete areas of amenity grassland are associated with residential land holdings generally comprising of gardens and mown lawn grassland areas.	2.57	1.4
Semi-improved acid grassland	This habitat occurs in two fields on a slope to the north of the ecological survey area south of Brook Hill Lane.	2.1	1.1
Running water	<p>The River Don flows westward through the centre of the ecological survey area feeding from Winscar Reservoir (and its source further west) via an overflow channel. Within the survey area the river comprises of a channel approximately 3-4m wide with shallow grassy banks and an approximate depth between 0.5-2m.</p> <p>A number of other smaller tributaries are also present within the ecological survey area, Clough Beck which flows from the Lower Windleden Reservoir and several un-named cloughs/dikes originating off moorland to the south feed into the river Don via underground culverts.</p>	2	1.1
Buildings	<p>A number of buildings are present within the ecological survey area, including residential and farm buildings associated with Dunford Bridge village, Upper and Lower Townhead Farm, and Eltock Farm.</p> <p>These were not assessed in detail for their potential to support bats at this stage, however are likely to provide potential roosting opportunities given most were stone/brick structure with tiled roofs.</p>	1.07	0.6
Arable /allotments	One small arable field is located near the centre of the ecological survey area which was planted with a forage crop (<i>Brassica</i> sp.) at the time of the survey and being grazed by sheep. A number of small allotments are located to the west of the study site adjacent to houses within Dunford Bridge, classified also as arable.	0.94	0.5
Marshy grassland	A small area of marshy grassland following a small stream is located to the south-east of the ecological survey area, where the dominate species is rush (<i>Juncus</i> sp.) (Target Note 32, Figure 3D).	0.56	0.3
Standing water	<p>Nine distinct waterbodies were identified within the ecological survey area:</p> <p>1. Pond 1: located within Wogden Foot LWS, is a lined created pond</p>	0.42	0.2

Habitat	Brief description	Area (ha)	% of Survey Area
	<p>measuring roughly 15 x 3 m with a sandy substrate and small amount of aquatic vegetation including water forget-me-not (<i>Myosotis scorpioides</i>) (Target Note 30, Figure 3D).</p> <p>2. Pond 2: A pond measuring approximately 25 x 5 m (Target Note 21, Figure 3D)</p> <p>3. Pond 3: A garden type pond approximately 12 x 10 m with ducks present located within mown lawn grassland close to Dunford Bridge houses (Target Note 4, Figure 3A).</p> <p>4. Pond 4: A small pond measuring approximately 5 x 5 m appears to have been recently created (Target Note 34, Figure 3A).</p> <p>5. Pond 5: A small pond approximately 4 x 4 m to the west of the Sealing End compound (Target Note 36, Figure 3A).</p> <p>6. Pond 6: A small circular garden pond approximately 4 x 4 m in area (Target Note 37, Figure 3A).</p> <p>7. Pond 7: A small ornamental garden pond. Limited aquatic vegetation with tropical fish present (Target Note 38, Figure 3A)</p> <p>8. Pond 8: A small circular lined man made pond; stone sided, shallow with little or no aquatic vegetation, has been cleared out in recent times. Good refugia close by with rubble piles and other features such as old tyres, plant pots and containers (Target Note 39, Figure 3A).</p> <p>9. Pond 9 – a circular pond located within a field, lined with shallow banks. Aquatic vegetation present. Appears to be fed by a land drain (Target Note 40, Figure 3A),</p> <p>The north-eastern corner of the Lower Windleden Reservoir falls within the ecological survey area. Comprising a large body of water, and potentially used for sailing (similar to Winscar reservoir). It is linked via Clough Beck to the ecological survey area.</p>		
Continuous/dense scrub	An area of continuous scrub is located at the beginning of the Trans-Pennine Trail. Other areas comprising of dense scrub are present, generally comprising of hawthorn, elder or young silver birch scrub.	0.14	0.1
Rock exposure, Other	An artificial vegetated rocky exposure is located at the base of the Winscar Reservoir dam to the north-west of the ecological survey area (Target Note 35, Figure 3A). Areas of exposed rock are also present close to the Yorkshire Water facility, forming the embankments to the tunnel within the National Grid depot (Target Note 12, Figure 3A) and a small area at Target Note 13, Figure 3A).	0.11	0.1
Bare ground/Spoil	An area of disturbed bare earth is located near the centre of the ecological survey area where cattle have poached the land (Target Note 7, Figure 3B).	0.1	0.1
Unimproved calcareous grassland	This grassland is only found in discrete locations within Wogden Foot LWS, on mounds of limestone ballast from the old railway line; the areas are too small to be illustrated on the Phase 1 map.	N/A	N/A
Broadleaved and conifer trees	Broadleaved trees (mainly ash, oak or alder) are scattered throughout the ecological survey area predominately along stone wall field boundaries in the northern section of the ecological survey area (Target Notes 19, 20, 25 and 26, Figure 3D and Target Note 10, Figure 3C) and along the River Don (Target Note 27, Figure 3D and Target Note 29, Figure 3C). A number of standalone conifer trees (<i>Larch</i> sp. or <i>Pinus</i> sp.) are located along a stream valley (small tributary of the River Don) in the centre of the ecological survey area and within a small valley to the east of the ecological survey area (Target Note 22, Figure 3D).	N/A	N/A
Hedgerow - species poor	Hedgerows are scarce within the ecological survey area, restricted to small sections around residential properties including one comprising of rhododendron at Stony Gate close to Lower Windleden Reservoir and a number of other formalised garden boundaries around Don View.	N/A	N/A

Habitat	Brief description	Area (ha)	% of Survey Area
Stone walls/Fences	Stone walls make up the majority of field boundaries throughout the ecological survey area. The remaining field boundaries, where present, are generally made up of post and wire fences.	N/A	N/A
Scattered scrub	Scattered scrub is present throughout the ecological survey area to varying degrees. Areas of scattered scrub are predominately located along the banks of the River Don and within the Wogden Foot LWS to the east of the ecological survey area. Species include silver birch, goat/sallow willow (<i>Salix caprea</i>), elder, bramble, hawthorn, holly, bilberry, dog rose (<i>Rosa canina</i>) and field rose (<i>Rosa arvensis</i>).	N/A	N/A
Inland cliff faces	Two rocky inland cliffs are present within the ecological survey area located adjacent to the dam of Windleden reservoir to the south-west and near the centre of the ecological survey area. These features have been classified as inland cliffs, as no other classification is appropriate.	N/A	N/A
Non-native plant species	Rhododendron was recorded within a number of locations within the ecological survey area (Target Notes 3, 5, 11 and 12, Figures 3A and 3B) including a number of areas where the rhododendron was dense/continuous on the banks of the river and disused railway line to the west of the ecological survey area. No other non native species were recorded.	N/A	N/A

4.2.3 Notable Habitats

Table 4.4 provides a summary of notable habitats associated with the ecological survey area based on the results of the Phase 1 habitat survey and with reference to guidance for the recognition of national designation (SSSI), NERC Act S41 (Maddock, 2008), Local BAP (See Table 3.1) and LWS (Table 4.2) quality habitats. This assessment is preliminary and further surveys may be required to investigate the value of habitats further, as detailed in Section 5 of this report.

Table 4.4: Notable habitats within the ecological survey area

Habitat	NERC Act	LBAP	LWS Quality	Supporting Comments
Lowland mixed deciduous woodland	✓	✓	✗	Priority habitat within Barnsley's Habitat Action Plan. Broadleaved woodland following the River Don contains tree species including alder, silver birch and ash. Further survey is needed to define the quality of this habitat and its value as a LBAP.
Lowland dry acid grassland	✓	✓	✓	Priority habitat within Barnsley's Habitat Action Plan. Grassland within Wogden Foot LWS contains unimproved acid grassland; further survey is required to determine the quality of this habitat.
Lowland Meadows	✓	✓		Priority habitat within Barnsley's Habitat Action Plan. Some areas of grassland located within Wogden Foot LWS and alongside the Trans Pennine Trail (TPT) around Target Note 6, Figure 3A) comprise of more neutral or have elements of calcareous grassland such that they may be consistent with this habitat type.
Upland heathland	✓	✓	✓	Priority habitat within Barnsley's Habitat Action Plan. The majority of land to the south of the Trans-Pennine Trail is upland heathland within the Western Moors LWS. The dominate plant species in this area are heather and bilberry. Further survey is required to determine the quality of this habitat.

Habitat	NERC Act	LBAP	LWS Quality	Supporting Comments
Purple moor grass and rush pastures	✓	✓	✓?	Priority habitat within Barnsley's Habitat Action Plan. Three fields are located to the south-east of the ecological survey area, these are unimproved acid grassland containing purple moor grass, matt grass and rush (Target Note 32, Figure 3D) and form part of the Western Moors LWS.
Ponds (and standing open water)	✓	✓	✗	Priority habitat within Barnsley's Habitat Action Plan. Nine ponds are located within the ecological survey area (Target Notes 4, 21, 30 34, 36, 37, 38, 39 and 40, Figure 3A and 3D). Eight of these ponds are artificially created ponds (Ponds 1, and 3 to 9 inclusive) and the ninth is a natural pond (Pond 2, Figure 3D) and all ponds are unlikely to be of LWS quality.
Rivers	✓	✓	✗	Priority habitat within Barnsley's Habitat Action Plan. The River Don including its tributaries runs through the centre of the ecological survey area. The River Don is not subject to any designations. Based upon the data collated by the desk study the section of river within the ecological survey area is not of LWS quality.
Key to symbols: ✓ = yes, ✗ = no, ? = possible, further survey required to determine this.				

4.3 Protected and Notable Species

Table 4.5 provides a summary of potentially relevant species identified through a combination of desk study and field survey. The table summarises the conservation status of each species/group of species and provides supporting comments for those which have been identified as being present or potentially present within the ecological survey area.

Species present on site are those for which recent direct observation or field signs confirmed presence. Species which are possibly present are those for which there is potentially suitable habitat based on the results of the Phase 1 habitat survey, or this combined with desk study records. Species unlikely to be present are only mentioned where there are desk study records but there is no suitable habitat in the zone of influence, or there are other reasons why presence is unlikely. Brief comments are provided to support the determinations made in Table 4.5.

Where species are identified in Table 4.5 as likely or possible, they are likely to represent legal constraints or may be material to determination of a planning application. Further surveys will or may be required to determine presence or probable absence. Requirements for further survey are identified in Section 5 of this report.

Table 4.5: Protected and notable species relevant or potentially relevant to the proposed OHL undergrounding scheme

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey area?	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
Great crested newt (<i>Triturus cristatus</i>)	✓	✓	✓		(✓)	✓	<p>Nine waterbodies and suitable terrestrial habitat are present within the ecological survey area.</p> <p>Terrestrial habitat capable of supporting foraging and hibernating newts is present on within the survey area, within 250m of waterbodies identified. This is the distance newts will typically disperse (subject to habitat quality/connectivity and lack of barriers) from breeding ponds into terrestrial habitat (Langton <i>et al.</i>, 2001).</p> <p>No records were returned for great crested newt (nor any other newt species) within the ecological study area.</p> <p>Habitat Suitability Index (HSI) assessments were undertaken for each pond (Appendix D provides the breakdown of the calculations) which calculated the following HSI scores for the ponds as:</p> <ul style="list-style-type: none"> • Pond 1: Below Average (0.59) (Target Note 30, Figure 3D); • Pond 2: Below Average (0.53) (Target Note 21, Figure 3D); • Pond 3: Average (0.64) (Target Note 4, Figure 3A); • Pond 4: Average (0.61) (Target Note 34, Figure 3A); • Pond 5: Average (0.64) (Target Note 36, Figure 3A); and • Pond 6: Below Average (0.54) (Target Note 37, Figure 3A). • Pond 7: Poor (0.42) (Target Note 38, Figure 3A); • Pond 8: Below Average (0.55) (Target Note 39, Figure 3A); and • Pond 9: Average (0.63) (Target Note 40, Figure 3A). <p>Factors which would influence the suitability of ponds (and terrestrial habitat) to support great crested newt are the presence of barriers to dispersal e.g. the River Don, and relatively isolated nature of the ecological survey area in relation to other ponds within the local area. However the presence of this species cannot be completely scoped out without completion of additional assessment/survey of areas likely to be affected by the proposed scheme (as detailed in</p>

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey area?	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							Section 5).
Bats (Roosting)	✓	✓	✓		(✓)	✓	<p>No records of bats were provided by the desk study; however this is likely only to indicate that the area is unrecorded rather than an absence of bats.</p> <p>Mature trees and built features with potential to support roosting bats are present within the ecological survey area. Built features with bat potential include buildings, old bridges, culverts and the Woodhead/Dunford Bridge Tunnel at the western end of the ecological survey area. (Target Notes 9, 10, 13, 15, 16, 19, 20, 23, 24, 25, 26, 27, 28, 41, 42 and 43, Figure 3A).</p> <p>The outcome of the visual inspection of the tunnel concludes that whilst there is low roosting potential in the stone fascia around the tunnel entrance (the stone work is prominently intact) the presence of roosting opportunities within the tunnel itself cannot be ruled out. It is understood that bat survey work has also been previously conducted of the tunnel to support cable relocation work and concluded that the tunnel had limited roosting opportunity.</p> <p>Further assessment of trees and structures which could be potentially affected by the proposed scheme, including completion of dusk/dawn surveys of the Woodhead Tunnel are recommended (as detailed in Section 50 to determine the presence of bat roosts. Information on previous survey work which may have been conducted will also be reviewed.</p>
Bats (Activity)	✓	✓	✓		✓	✓	Woodland areas, the River Don and associated vegetated corridor present within the ecological survey area provide suitable terrestrial bat foraging and commuting habitat. Further survey of potentially affected areas would be required for the value for foraging and commuting bats in combination with the completion of roost surveys (detailed in Section 5).
Birds (breeding and wintering)	✓	✓	✓	✓	✓	✓	<p>Records of NERC Act Section 41 species were returned from the records centre and suitable habitat (including heathland, woodland, river corridor and farmland) is present within the ecological survey area for breeding and wintering birds.</p> <p>Wintering bird surveys have been completed (October 2015 – March 2016) within the ecological survey area. Results have recorded peregrine, dipper (<i>Cinclus cinclus</i>), red grouse and sparrowhawk (<i>Accipiter nisus</i>) within the ecological survey area.</p>

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey area?	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							Breeding bird surveys of likely affected areas have been recommended to be conducted between March and June 2016 (detailed in Section 5).
Badger	✓	✓	✓		(✓)	✓	Suitable habitat is present within the ecological survey area to support badger (e.g. woodland for sett creation and grassland for foraging) however, no records were returned from the records centre. Although no records or setts were identified during the survey, the survey did not intensively search areas of woodland or scrub. Previous consultation with stakeholders has noted 2 setts in Wogden Foot. Therefore a further survey of any areas likely to be affected by the scheme would be required to fully determine the presence of setts (detailed in Section 5).
Otter	✓	✓	✓		✓	✓	Suitable habitat for otter is present along the River Don although no records were returned from the records centre. Barnsley Biodiversity Trust indicate that there has also been evidence of otter activity on a tributary of the River Don in the west of the borough (Ref: http://barnsleybiodiversity.org.uk/otter.html). Further surveys are recommended of areas where works are likely to affect this species (detailed in Section 5).
Water vole	✓	✓	✓		(✓)	✓	Records were returned from The Peak District National Park Authority for the ecological study area for this species. The River Don and associated minor watercourses located within the ecological survey area provide some limited potential to support this species. Although the habitat is considered to be sub-optimal due to their isolated nature and rocky, fast flowing channel conditions without a further survey/assessment the presence of this species cannot be ruled out. Therefore a survey is recommended and would be conducted in combination with the survey recommended for otter (detailed in Section 5).
Reptiles	✓	✓	✓		✓	✓	Records of common lizard (<i>Lacerta vivipara</i>) were returned from the record centre and suitable habitat for reptiles is present within the ecological survey area (Target notes 6, 8 and 17, Figure 3A and 3B). Anecdotal evidence of common lizard exists from Wogden Foot LWS. Further survey is required to determine if reptiles are present within the

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey area?	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							ecological survey area (detailed in Section 5).
Mountain hare (<i>Lepus timidus</i>)		✓	✓		✓	✓	<p>Records were returned from records centre and the heathland to the south of the ecological survey area provides suitable habitat for this species, although the ecological survey area is not considered to be of high enough altitude to be optimal for this species.</p> <p>It is unlikely that the proposed scheme would result in significant potential effects upon habitats likely to be used by mountain hare, therefore it is not considered necessary to undertake further detailed surveys for this species.</p>
Brown hare (<i>Lepus europaeus</i>)		✓	✓		✓	✓	<p>Records were returned from the records centre and suitable habitat (including grassland, woodland and heathland) is present within the ecological survey area.</p> <p>It is unlikely that the proposed scheme would result in significant potential effects upon habitats likely to be used by brown hare, therefore it is not considered necessary to undertake further detailed surveys for this species.</p>
Notable invertebrates		✓	✓		✓	✓	<p>Records of cinnabar (<i>Tyria jacobaeae</i>), small heath (<i>Coenonympha pamphilus</i>) and dingy skipper (<i>Erynnis tages</i>) were returned from the records centre. Furthermore Wogden Foot LWS support habitats which are of interest for terrestrial invertebrates, including potential to support glow worm (<i>Lampyrus noctiluca</i>).</p> <p>Surveys for notable terrestrial invertebrates are recommended where habitats which could support notable invertebrates are present e.g. Wogden Foot LWS, and which could be affected by the proposed scheme. In addition to results of the surveys the assessment of the potential impacts of the proposed scheme will also be informed using online, desk study and habitat suitability assessment information.</p>
White clawed crayfish (<i>Austropotamobius pallipes</i>)	✓	✓	✓			✓	<p>Neither the desk study records nor the consultation undertaken to date has indicated that the ecological survey area is likely to support significant populations of white clawed crayfish. The distribution of this species within the river catchments located within the ecological study area is known to be scarce, and no habitat suitable to support this species is likely to be affected by the proposed scheme.</p>

Species / Species Group	Legally Protected Species?	Species of Principal Importance?	Other notable Species?	Confirmed within ecological survey area?	Possibly Present within the ecological survey area?	Present / Potentially Present in Wider Zone of Influence?	Supporting Comments
							Therefore no further field surveys are recommended for this species.
Invasive non-native species			✓	✓	✓	✓	Rhododendron is present throughout the ecological survey area (Target Notes 3, 5, 11 and 12, Figure 3A and 3B). Whilst no other invasive plant species were identified within the ecological survey area, given the timing of the survey in winter (when some species would not be evident), a more extensive and thorough survey would be required to determine full extent of rhododendron and other invasive non-native species which may be present.
Fish		✓			✓	✓	Whilst not designated the River Don has potential to support notable fish species but will not be directly affected by the proposed scheme. Whilst no further field surveys are recommended for this species group, the potential indirect impacts of the proposed scheme on fish (and aquatic ecology) e.g. indirect construction effects from silt laden run off, will be assessed using online, desk study and habitat suitability assessment information.
Hedgehog (<i>Erinaceus europaeus</i>)		✓	✓		✓	✓	Records were returned from the records centre and suitable habitat (including grassland and woodland) for this species is present within the ecological survey area. It is unlikely that the proposed scheme would result in significant potential effects upon habitats likely to be used by hedgehog; therefore it is not considered necessary to undertake further detailed surveys for this species.
<p>Key to symbols: ✓ = yes, see Supporting Comments for further rationale</p> <p><u>Legally protected species</u> are those listed under Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended); and, Schedules 2 and 4 of The Conservation of Habitat & Species Regulations 2010 (as amended).</p> <p><u>Species of Principal Importance</u> as those listed under Section 41 of the NERC Act 2006. Planning Authorities have a legal duty under Section 40 of the same Act to consider such species when determining planning applications.</p> <p><u>Other notable species</u> include native species of conservation concern listed in the LBAP (except species that are also of Principal Importance), those that are Nationally Rare, Scarce or Red Data List, and non-native controlled weed species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).</p>							

4.4 Overall Summary of Results in Context of Proposed Works

The existing section of the 400kV 4ZO overhead line between the existing Sealing End Compound (SEC) located west of Dunford Bridge village, excluding the first two pylons at the western end of the section, is located on the northern side of the River Don.

Whilst the ecological survey area does not hold any international or national designations, it is considered that due to the presence of the two LWS partially within the ecological survey area that the potential ecological value of the habitats present in those areas would be consistent with those of County value due to their designation. The Wogden Foot LWS is more likely to result in an ecological constraint to the completion of works; a pylon is currently located within its boundary and the undergrounding route within the area of this LWS would also need to consider the route to the Trans-Pennine Trail, loss of habitat and potential effects on protected or notable species associated with the LWS designation. The dry heath and acid and unimproved grassland habitats to the south side of the Trans-Pennine Trail and grassland located within Wogden Foot LWS are likely to be of greatest botanical interest importance. The presence of Western Moors LWS would also need to be considered in the event any undergrounding route within the land to the south of the Trans-Pennine Trail is proposed. The potential impacts on ground nesting birds and habitats of greater potential value would also need to be considered.

A significant habitat feature of the ecological survey area is the River Don corridor in combination with the Trans-Pennine Trail habitat corridor. Potential effects upon the habitats/water quality but also the aquatic/riparian species it may support will need to be considered. The woodland areas to either side of the river, whilst predominately young/semi-mature provides habitats which provide opportunities for nesting birds, badger, foraging and possibly roosting bats and cover/shelter for otter. More detailed surveys have been recommended to be conducted to determine the importance of this habitat features for these species.

The ecological survey area to the north of the River Don corridor conversely is dominated by less diverse grassland habitats comprising of predominantly sheep grazed land. These habitats are typical and widespread habitats within the local area and are therefore of lower value. Loss or disturbance of these habitats, either temporary or permanent would potentially be more straightforward to mitigate from an ecological perspective.

The removal or replacement of pylons and/or potential undergrounding of cables, depending upon the construction method employed, will require ground works including vegetation clearance, topsoil removal and trench excavation. Potential effects of the cable undergrounding are likely to be largely short term during cable installation, and habitats which are disturbed can be reinstated or enhanced. Nevertheless the ground excavation works will need to consider the potential effects upon protected and notable species in accordance with legislation compliance. Whilst direct effects upon mature trees (e.g. felling or pruning) or other structures suitable to support roosting bats may be able to be avoided, the effect of disturbance upon species which may be present would need to be considered including for bats, great crested newt, badger and otter. Where any potential permanent structures such as sealing end compounds are required the effect of habitat loss and longer term effects upon habitats with designated site value would need to be considered. Generally ground excavation works would be preferred to be conducted within habitats of low value.

5 Identification of Ecological Constraints and Recommendations

5.1 Approach to the Identification of Ecological Constraints

Section 4 of this report identified relevant ecological receptors that may represent constraints to the proposed scheme, or that provide opportunities to deliver ecological enhancement in accordance with planning policy. The NPPF and local planning policy (summarised in Section 2 of this report) specify requirements for the protection of features of importance for biodiversity. Planning policy is a material consideration when determining planning applications. Compliance with planning policy requires that the proposed scheme considers and engages the following mitigation hierarchy where there is potential for impacts on relevant ecological receptors:

1. Avoid features where possible;
2. Minimise impact by design, method of working or other measures (mitigation) e.g. by enhancing existing features; and
3. Compensate for significant residual impacts, e.g. by providing suitable habitats elsewhere.

This hierarchy requires the highest level to be applied where possible. Only where this cannot reasonably be adopted should lower levels be considered. The rationale for the proposed mitigation and/or compensation should be provided with the planning application, including sufficient detail to show that these measures are feasible and would be provided.

In pursuance of the objective within the NPPF of providing net gains in biodiversity where possible, consideration should be given to the scope for enhancement as part of the proposed scheme. This should represent biodiversity gain over and above that achieved through mitigation and compensation. Enhancement could be achieved within or potentially outside of the area potentially affected by the undergrounding works.

The likelihood of the relevant ecological receptors constraining the proposed scheme has been assessed with reference to the scale described in Table 5.1. The higher the importance of the ecological receptor for the conservation of biodiversity at national and local scales, the more likely it is to be a material consideration during determination of the planning application for the proposed scheme.

Opportunities for ecological enhancement are not scaled in Table 5.1, but are identified in the accompanying appraisal (Section 5.5 of this report). There may be scope for ecological enhancement where existing habitat features could be improved or enhanced within the proposed scheme as designed, or with only minor amendment to the design of the proposed scheme. Ecological enhancement may not be possible where there is little scope to accommodate enhancement within the proposed scheme, e.g. due to a lack of utilisable space, or where land is required for essential mitigation.

Table 5.1: Scale of Constraint to Development

Likelihood	Definition
High	An actual or potential constraint that is subject to relevant legal protection and is likely to be a material consideration in determining the planning application (e.g. statutory nature conservation designations and European/nationally protected species). Further survey likely to be required (as detailed in this report) to support a planning application.
Medium	An actual or potential constraint that is covered by national or local planning policy and, depending on the level of the potential impact as a result of the proposed scheme, may be a material consideration in determining the planning application. Further survey may be required (as detailed in this report) to support a planning application.
Low	Unlikely to be a constraint to development or require further survey prior to submission of a planning application. Mitigation is likely to be covered under Construction Environmental Management Plan (CEMP) or precautionary working method statement (e.g. generic requirements for the management of nesting bird risks).

5.2 Constraints and Requirements for Further Survey: Designations

As detailed in Table 4.1, whilst there are no statutory designations within the ecological survey area, a number of statutory designated sites are located within proximity (160m at nearest point between ecological survey area and site boundaries) of the proposed project. Whilst therefore it is unlikely that there would be any direct effect upon them, in respect of fully scoping out any potential indirect effects upon features for which they have been designated, particularly birds listed as the designating features of the SPA, the scope of a future Ecological Impact Assessment (EclA) should seek to undertake sufficiently robust breeding and wintering bird surveys to determine any effects upon them. Further consultation with the relevant statutory planning authorities (and Natural England) is recommended to ensure the scope of the breeding bird

survey is acceptable and to establish that no further detailed assessment (i.e. an Appropriate Assessment) upon the SPA/SAC is required via the completion of a Habitat Regulations Assessment (HRA) Screening. The scope of the wintering bird and invertebrate surveys has been agreed following consultation with Barnsley Council and issued to the Peak District National Park for comment.

In accordance with the definitions in Table 5.1, Peak District Moors (South Pennine Moors Phase 1) SPA is therefore considered to represent a Medium level of constraint to the proposed works to replace overhead lines with underground cables. The completion of breeding bird surveys as recommended in Section 5.4 will be used to determine the value of the ecological survey area for which the SPA is designated and assess the potential effects upon them.

In terms of the Dark Peak SSSI, given the lack of obvious linkages between the ecological survey area (and any works), and the SSSI boundary, any potential effects upon the designated habitats are unlikely and would sought to be scoped out via the EclA. However the SSSI is also designated for several species of birds and therefore potential effects from the completion of the scheme upon these mobile species would need to be considered. Therefore the SSSI is assigned as a Medium level of constraint at this stage. The completion of breeding bird surveys as recommended in Section 5.4 will be used to determine the value of the ecological survey area for species associated with the SSSI and assess the potential effects upon them.

The presence of the two LWS's within the ecological survey area is considered to represent a Medium level of constraint to the proposed scheme. Whilst not statutory designations, consultation with the local planning authority, landowners and LWS land managers (for Wogden Foot it is understood that this was Sheffield Wildlife Trust historically, but this may be transferred to Yorkshire Wildlife Trust) will be required in order to consider the likely potential effects of the proposals upon the LWSs, and potential need for mitigation measures. Options to avoid routing the cable through Western Moors LWS may be possible given its location to the south of the Trans-Pennine Trail. However Wogden Foot LWS is situated close to the existing overhead line and potential undergrounding option (along the Trans-Pennine Trail itself), therefore a Sealing End Compound (SEC) may be necessary within or close to this LWS to facilitate the proposed scheme given other engineering and environmental constraints. In order that the underground cable route could avoid crossing the River Don (which could involve significant engineering operations to achieve) the option of a SEC on the southern side of the river and within Wogden Foot LWS may be likely. This option which seeks to avoid effects upon Western Moors LWS has been discussed with the relevant stakeholders. In the event temporary or permanent habitat loss within Wogden Foot LWS project cannot be avoided, mitigation measures in the form of replacement compensatory habitat or other enhancement measures (see Section 5.5) will be required to address these effects upon the non-statutory designated site.

South Pennine Moors SAC is considered to represent a Low level of constraint to the proposed works to replace overhead lines with underground cables as this is located outside the ecological survey area and search area for permanent development. Therefore no direct impacts are predicted to occur upon the SAC habitats. Whilst there are indirect hydrological linkages between the SAC and scheme; namely present via the River Don catchment, these are likely to be addressed by the implementation of standard construction environmental management measures. Furthermore the search area for permanent development is located downstream of the SAC further restricting the potential route of any potential hydrological effects upon the SAC habitats.

Once the route/layout of the proposed scheme is further determined, particularly any permanent above ground equipment such as sealing end compounds that would result in permanent habitat loss, it is recommended that formal consultation with the statutory authorities outlining the scope of the EclA (via a scoping request) is undertaken.

5.3 Constraints and Requirements for Further Survey: Habitats

There are some habitats present within the ecological survey area which are considered to be of Principal Importance listed under Section 41 of the NERC Act (2006). In addition desk study data obtained to inform this PEA includes records of several notable and/or localised species. These habitats and/or plant species may be subject to permanent localised loss as a result of the proposed works.

As the Phase 1 survey was undertaken outside the appropriate season to fully determine the botanical interest of potentially important habitats including unimproved grassland, acid grassland/heath and woodland, further botanical survey may be required in areas where there is likely to be direct loss/disturbance to these habitats. The additional surveys are required in order to inform potential botanical constraints and opportunities for mitigation and enhancement of habitats present. A National Vegetation Classification (NVC) level is recommended in spring/summer 2016.

The survey would follow the methodology of Rodwell (2006), and would be undertaken when the majority of the heathland, woodland and grassland habitats present can be most accurately characterised, which will be between May and August, when the majority of flowering plants will be identifiable.

Subject to the layout of the proposals, the river may require further assessment and/or surveys to determine the potential value of the aquatic habitats.

Mitigation measures may be needed to avoid or minimise loss of habitat and/or provide improved management of an alternative area.

In accordance with the definitions in Table 5.1, habitats within the ecological survey area are considered to represent no more than a Medium level of constraint to the proposed works subject to the final undergrounding route, compound location and construction methods this could be reduced to a Low level.

5.4 Constraints and Requirements for Further Survey: Species

There are several legally protected or otherwise notable species present or considered to have potential to be present (see Section 4.3 and Table 4.5) within the ecological survey area. These species will be a material consideration in the planning process and further survey work will be required in order to determine whether the proposed works would have potential to cause offences under wildlife legislation, or whether the receptors merit further consideration within the planning framework. The proposed surveys will underpin strategies for avoidance and mitigation of any effects, and provide a baseline by which any enhancement opportunities may be determined. The methodology of the surveys proposed follow current professional guidance. A summary is provided as Table 5.2.

Overall, species are considered to represent a High level of constraint to development in accordance with the definitions in Table 5.1 and as detailed below.

Wintering birds

Habitats are present within the survey which may support overwintering species (or assemblages) of birds. Subject to the proposed timing of the works, potential disturbance effects could occur to wintering bird species of conservation concern or associated with the statutorily designated sites located west of the ecological survey area.

Several species roost on the ground, typically in boggy areas with rough vegetation, but also on heathland and in young conifer plantation. Therefore there is potential for them to roost within the ecological survey area. Additionally other species such as short-eared owl, and waders such as snipe and woodcock are also likely to be present and favour particular areas of the ecological survey area if roosting.

Therefore wintering bird surveys are proposed in order to determine areas of the ecological survey area of most value to important wintering bird species.

These would be undertaken on a monthly basis between October and March inclusive, and consist of surveyors walking transect routes across the major habitats within the ecological survey area, allowing identification of birds present by sight or sound. Vantage points would be incorporated with surveyors pausing at defined points in order to scan the surrounding habitats for up to five minutes during the transects. Survey timing will seek to incorporate dawn or dusk period to seek to identify the presence of crepuscular species such as short-eared owl.

Breeding birds

Under the Wildlife and Countryside Act (1981 as amended) it is an offence to kill, injure or take a wild bird, or to intentionally take, destroy or damage the nest or eggs of a wild bird. Special protection is also afforded to species listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). These birds are rare, endangered, declining or vulnerable species. In addition to the protection afforded to all bird species, it is an offence to cause reckless or intentional disturbance to the specially protected Schedule 1 listed species when they are building nests.

Specially protected birds are listed in Annex 1 of the EU Directive on the Conservation of Wild Birds (2009). Many are afforded protection by designation of land as SPA. The Peak District Moors (South Pennine Moors Phase 1) SPA is primarily designated for breeding merlin, golden plover and short-eared owl.

Other species listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were recorded during the Phase 1 habitat survey work with peregrine falcon utilising the pylons as vantage points. The desk study data obtained to inform the PEA indicates the potential presence of other legally protected or otherwise notable species within the ecological study area.

It is therefore recommended that a series of breeding bird surveys be undertaken between early March and mid-June, following the British Trust for Ornithology Common Birds Census (CBC) approach (Marchant, 1983). This would involve surveyors walking transect routes across the major habitats within the ecological survey area, allowing identification of birds present by sight or sound. Vantage points would be incorporated with surveyors pausing at defined points in order to

scan the surrounding habitats for up to five minutes during the transects. Multiple (4 to 6) visits would be made and on each occasion locations, numbers, gender and behaviours of bird species would be recorded. Upon completion of all visits, the details would be collated to produce maps of likely and confirmed breeding territories within the ecological survey area. This data would then inform the likely areas of constraint to undertaking works during the breeding season, and any valuable habitats that should not be damaged as a result of works outside of the breeding season.

Golden plover and a number of other bird species which could be present are crepuscular species (active at dusk and dawn), and requires specific surveys to be undertaken with four visits in June and July recommended, commencing either at dusk or an hour before dawn. Birds would be recorded by following transect routes through habitats where they are likely to occur (open heath, and open woodland), with species noted by sight and sound, with gender and behaviour recorded. As with other species, territory maps would be compiled.

Great crested newt

Whilst no records for great crested newt have been provided by the desk study, nine ponds have been identified within the ecological survey area and have been subject to a full assessment using the Habitat Suitability Index (Oldham et al., 2000). Of the nine, one has been assessed as being Poor, four as being Below Average and the remaining four as of Average suitability to support great crested newt. Much of the ecological survey area offers habitats that would be suitable to support great crested newts during the terrestrial phases of their life cycle, although it is recognised the ecological survey area given its altitude and relative isolation from other ponds (or landscape where ponds are more prevalent) plus the presence of barriers to movement e.g. the river, it is not possible to rule out the potential presence of this species using these ponds.

Great crested newts and their habitat are afforded full protection under the Wildlife and Countryside Act (1981 as amended) and the Conservation of Natural Habitats and Species Regulations (2010 as amended). Together this legislation makes it an offence to kill, injure or disturb an individual. In addition it is an offence to damage or destroy their habitat, including terrestrial habitats that may be well separated from the breeding pond. Best practice guidance recommends that consideration is given to the potential for impacts on great crested newt within a 500m radius of potential breeding ponds.

The great crested newt is also listed as a species of principal importance within Section 41 (S41) of the NERC Act (2006).

In the absence of further survey, the potential for killing, injury or disturbance of great-crested newts cannot be ruled out. As a consequence it is recommended that a presence/absence survey for great-crested newt is undertaken. This can be achieved either by collecting water samples for analysis for great crested newt environmental DNA (eDNA) or via conventional survey methods. The eDNA methodology follows the Natural England approved WC 1067 technical advice note for field and laboratory sampling of GCN environmental DNA¹.

Current best practice (English Nature, 2001) states that ecological surveyors should, under a Level 1 class survey licence for great crested newts, conduct a total of four visits to determine the presence of great crested newts in potential breeding ponds using at least three of the following four established techniques (if presence is confirmed this rises to six visits to gain a population size class estimate):

- Bottle trapping;
- Torching;
- Netting; and
- Egg searching.

The surveys should take place between mid-March and mid-June with at least two visits between mid-April and mid-May (three to gain a population estimate).

It is recommended that surveys should include other potentially suitable waterbodies within 250m of the search area for permanent development in order to determine the potential for newts breeding offsite and the potential for them to be using the terrestrial habitats which could be affected by the proposed scheme. This is the distance over which it is considered most likely that great crested newt will move between breeding ponds and between ponds and terrestrial habitat suitable for hibernation.

If great crested newt is confirmed an accurate estimation of the size of the great crested newt breeding population will be required, so that mitigation approaches may be accurately appraised, in line with guidance (English Nature, 2001) to maintain favourable conservation status.

¹ DEFRA (2014) WC1067 Appendix 5 Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA.

Reptiles

The four common reptile species grass snake (*Natrix natrix*), slow worm (*Anguis fragilis*), common lizard and adder (*Vipera berus*) are all protected under the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill or injure these species.

These reptile species are listed as species of principal importance within S41 of the NERC Act (2006).

Desk study data and anecdotal evidence suggests that common lizard could be present within the ecological survey area, although there is a paucity of recent records. These species are likely to be found in most habitat types identified on the ecological survey area, with the possible exception of improved heavily grazed grassland and dense conifer plantations.

Therefore, subject to the proposed layout of the undergrounding works, timing and construction methods a reptile survey may need to be undertaken to determine the status within the ecological survey area. This survey would focus on any habitats of greater potential to support reptiles e.g. heathland, unimproved grassland and scrub.

The surveys should aim to identify reptile species present and their relative abundance within the suitable habitat within the search area for permanent development and should follow best practice guidance set out in the Herpetological Workers Manual (Gent and Gibson 1998). This involves placing artificial refugia, which are laid in suitable habitat, to encourage reptiles to bask and/or shelter under. The artificial refugia used would comprise bitumen roofing-felt and corrugated metal.

Refugia would be placed at a minimum density of approximately 10 per hectare in specific locations that are attractive to reptiles (e.g. sunny areas adjacent scrub and south facing and left in-situ for a minimum of 10 days prior to the commencement of survey visits).

At least 7 survey visits would be undertaken between May and October 2016 – if identified within the first 7 visits the surveys would be continued up to a maximum of 20 to allow accurate calculation of populations of species present. Refugia should be checked when temperatures are between 10 - 20°C and under suitable weather conditions (Froglife, 1999). The species, sex, and life stage of any reptiles present should be recorded. Following 20 visits, an estimate of population sizes may be calculated.

The results will determine the value of habitats within the ecological survey area for reptile species and determine mitigation approaches that may be required.

Bats

All UK bat species are afforded full protection under the Conservation of Natural Habitats and Species Regulations (2010 as amended). Under this legislation it is an offence to kill, injure or disturb a bat, or to damage or destroy their places of rest or shelter. A bat roost is defined as any structure showing evidence of use by bats. Given that bats utilise different roost sites throughout the year a roost is afforded protection even when bats are absent.

Seven of the UK bat species are listed as species of principal importance within S41 of the NERC Act (2006): namely, the barbastelle bat (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteini*), noctule bat, soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat, greater horseshoe bat (*Rhinolophus ferrumequinum*) and lesser horseshoe bat (*Rhinolophus hipposideros*).

The ecological survey area contains both blocks of woodland, semi-natural and plantation, and also areas of scattered trees. Trees above diameter of 25 cm at breast height are considered to merit inspection to determine whether they contain features suitable to support roosting bats, or any evidence of use by bats. Such features include cavities, splits, and broken branches. Several structures including the Woodhead Tunnel have been highlighted by the PEA to have potential to support roosting bats. Whilst several of these could be avoided those which cannot or where works are proposed close to them detailed inspections are recommended.

Subject to the outcome of this initial daytime inspection of structures and trees the scope of roost surveys to confirm the presence / likely absence of bats will then be determined. These surveys can be conducted during the period May to September when bats are active.

To supplement the initial visual assessment of the Woodhead Tunnel, further surveys are recommended to be carried out where any works within the tunnel or at the tunnel face are proposed to ascertain its current use by bats. The scope of this further survey work is subject to the proposed works, including construction methods/timings, and the health and safety considerations associated with surveyor access to the tunnel. The option of using remote static recorders/detectors as well as the completion of vantage point manual surveys at the tunnel entrance within hibernation and summer roosting periods would be considered.

The proposed works have potential to have impacts on bat flight lines during construction (e.g. through severance of linear vegetation). Bat activity surveys are therefore recommended to determine the level of bat activity within the ecological survey area, and where this activity is located. The scope of the surveys would be informed by the extent of potential impacts and would involve monthly transects and use of static bat echolocation detectors.

Otter

Otters and their resting places receive protection under both British and European legislation. Under European legislation the otter is strictly protected by the EC Habitats Directive, (92/43/EEC), being listed under Annexes II and IVa. This is implemented in Britain through the Conservation of Habitats and Species Regulations 2010 (as amended). Otters are classed as a European protected species and therefore given the highest level of protection. Under British legislation otters are also listed on the Annex II of the Bern convention and are also protected under Schedule 5 and 6 of the Wildlife and Countryside Act 1981 (as amended) and are subject to the provisions of Section 9(4)(b) and (c) and (5). Otter is listed as UK Priority Species and as such it is targeted for measures necessary to support its conservation status in the UK set out in the Otter Species Action Plan (SAP).

No evidence of otter was found during the Phase 1 habitat survey which informed the PEA, and no records of otter were provided by the desk study. Whilst generally the status of otter within South Yorkshire remains restricted to certain river catchments, the Barnsley Biodiversity Trust indicate that there has also been evidence of otter activity on a tributary of the river Don in the west of the borough (Ref: <http://barnsleybiodiversity.org.uk/otter.html>).

Whilst there are mature trees scattered along the banks of the River Don within the ecological survey area these are unlikely to provide sufficient cover or significant opportunity for holt creation, therefore there is considered to be low potential for otter to be resident within the ecological survey area. However the River Don and other small tributaries are considered to be suitable for foraging by this species. Therefore, a survey for signs of presence of otter, including tracks, spraints and feeding remains, should be undertaken in combination with water vole surveys as recommended below.

Water vole

Water voles are fully protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) due to the protection afforded to their places of shelter and protection. Water voles are also identified as a species of principal importance under S41 NERC Act 2006.

Records of water vole were provided by the desk study from Wogden Clough located south of the ecological survey area, and sections of suitable watercourses were noted during the Phase 1 habitat survey which informed the PEA. The watercourses particularly the channels lacked limited open water or suitable bankside burrowing opportunities and are therefore considered to be less suitable for water vole, however in the absence of surveys it would not be possible to scope out their potential presence.

Given the connectivity of watercourses within the local area to those within the ecological survey area and to the River Don it is recommended that surveys of watercourses within the ecological survey area should be undertaken in order to confirm the presence / likely absence of water vole. Proposed works would have potential to impact on this species if undertaken close to or crossing the smaller watercourses.

Survey would involve ecologists walking along the banks and/or within watercourses to observe signs of water vole presence, including burrows, feeding remains, latrines, and prints.

Badgers

Badgers and their setts are afforded legal protection under the Protection of Badgers Act (1992). Whilst no specific evidence of badger was noted during the Phase 1 habitat survey, records for badger within the local area were provided by the desk study. Furthermore habitats within the ecological survey area are considered to be suitable for the creation of setts, in particular areas of woodland and dense scrub. In the absence of detailed survey there is the potential that proposed works could result in the disturbance of any active badger setts that are present in close proximity.

Therefore further survey is recommended which would involve surveyors carrying out a walkover of all areas of the ecological survey area potentially suitable to support badgers, noting features of badger presence, such as setts, runs, hairs, latrines and evidence of foraging.

Invasive species

Desk study data did not reveal the presence of invasive non-native species other than rhododendron within the ecological survey area. Rhododendron was noted during the PEA, with particularly dense stands in woodland in the west of the ecological survey area.

The potential constraint posed by the presence of invasive species is likely to be most effective to inform suitable management options once the proposals are fully determined. The presence of any other areas or instances of invasive species would be recorded during the completion of the above surveys. A thorough survey to map the location and extent of invasive species could be undertaken at a later date by AECOM where this is required.

Notable Invertebrates

Based upon the results of the desk study and initial consultation with stakeholders terrestrial invertebrate surveys at Wogden Foot LWS are recommended. The scope of survey work should seek to undertake an appraisal of the LWS's invertebrate assemblage covering the principal taxonomic groups relevant to the site.

Surveys would focus on a broad but relevant selection of taxonomic groups, which may include aculeate Hymenoptera (e.g. solitary bees & wasps), Coleoptera (beetles), Diptera (flies) and Arachnida (spiders), in addition to the more popular groups such as butterflies and dragonflies should be collected/ recorded. This approach should broadly follow the recommendations given in Drake et al. (2007). In order to sample effectively the variety of habitats on-site, up to four seasonally timed visits would be conducted at Wogden Foot LWS between early June and the end of August 2016. During these visits, a number of survey techniques (visual walkover, sweep netting and grubbing and ground searching) would be conducted to sample the habitats present and invertebrates will be either identified in the field by a suitably experienced surveyor before release, or specimens will be taken for later laboratory identification using a low power (10 – 40x) microscope.

A survey in June/July would comprise of an evening walkover survey to determine the potential presence of glow worm within the site, which would also be supplemented by the completion of the bat activity transect work during June and July which will include the completion of transect through Wogden Foot LWs and along the Trans-Pennine Trail.

5.4.1 Summary of Requirements for Further Survey

The constraints outlined here will need to be reassessed if there is a significant change to the type or scale of development proposed, or if there are any significant changes in the use or management of the land that would affect the habitats and species. If a planning application is made two years or more after a PEA it is advisable to review and update the survey data.

Table 5.2: Summary of Requirements for Further Survey

Survey	Optimal Survey Period	Why required
NVC botanical survey	May to August	Required for EclA and to determine any mitigation requirements
Wintering birds	Oct to Mar	
Breeding birds	Mar to June	
Great Crested Newt	Mar to June	
Reptiles	Apr to June, Sept	
Bats - bat roost potential assessment survey	All year	
Bats – roost survey (dusk and dawn surveys)	May to Sept	
Bat activity	May to Sept	
Badgers	Jan to Apr & Oct to Dec	
Otter/Water Vole	Apr to Sept	
Invertebrates	June – August	

Survey	Optimal Survey Period	Why required
Invasive Species	Apr to Sept	

5.5 Opportunities for Ecological Enhancement

There are opportunities to achieve ecological enhancement afforded by the proposals to replace existing electricity pylons and cables with underground cables within the ecological survey area.

There are likely to be a number of land management measures ongoing by landowners within the ecological survey area, e.g. Agri-Environment schemes coupled with the ongoing management likely to be in place for Wodgen Foot LWS, it is likely that there are a number of opportunities for ecological enhancement which could be implemented pre/during and post the completion of the undergrounding project.

The exact nature and scale of any such delivery would be subject to consultation with stakeholders and local planning authorities and should be informed by the outcome of further ecological surveys to support an EIA. Conclusions

The PEA report has identified that the ecological survey area is of moderate ecological value for its designations, habitats and potential to support protected or notable species.

The habitats present have been mapped and described, and are generally in good condition and likely to support protected and/ or notable species. Recommendations are made to undertake more detailed species surveys in order to determine the value of the ecological survey area and to develop a robust baseline that will form part of an Environmental Impact Assessment (EIA).

Mitigation and enhancement opportunities have been briefly considered but may be explored more fully as the baseline data is collected and should be detailed as part of the EIA.

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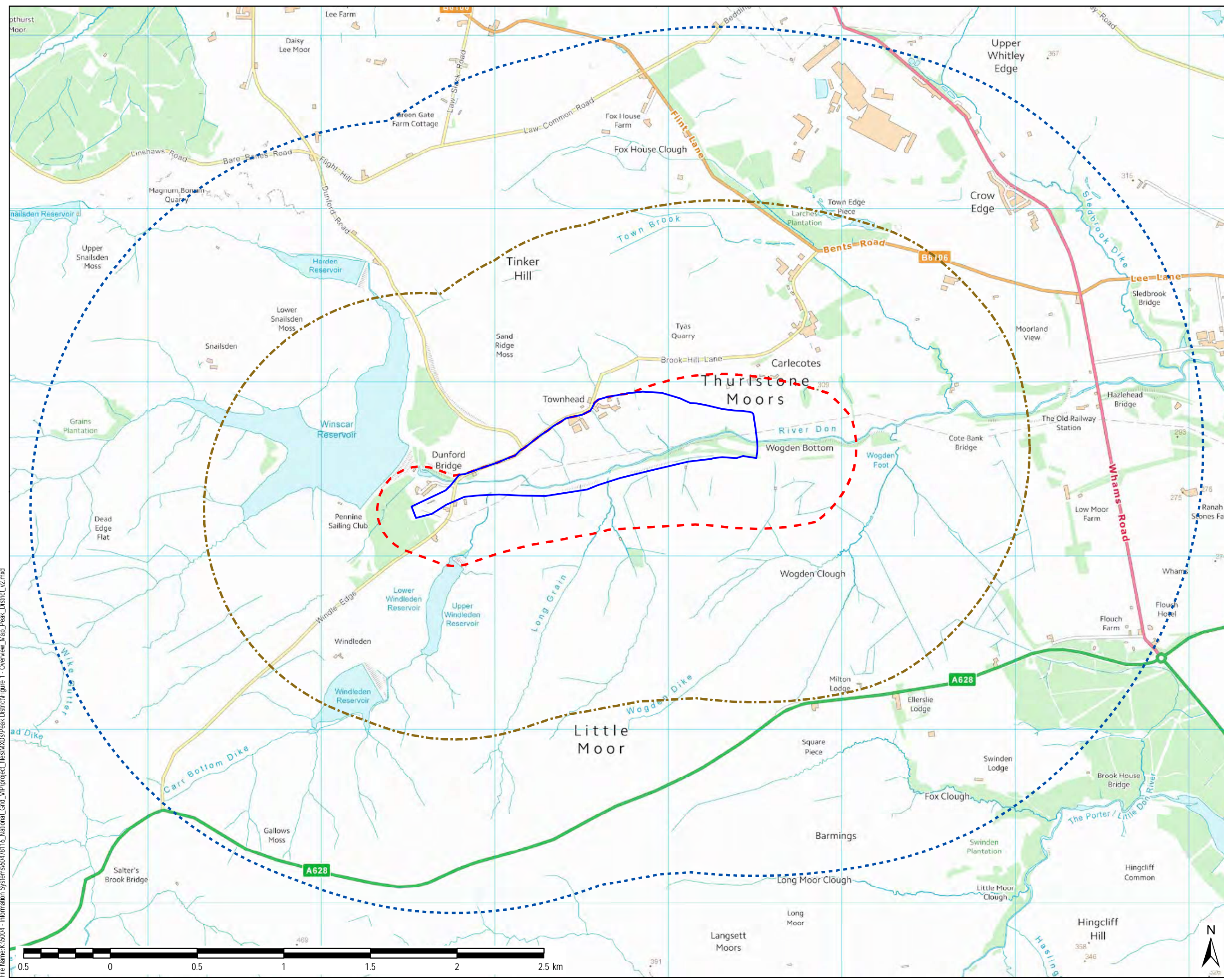
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Figures

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KEY

- Ecological Survey Area
- Ecological Study Area - 1km
- Ecological Study Area - 2km
- Search Area for Permanent Development



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Purpose of Issue
FINAL

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NATIONAL GRID

Project Title
VISUAL IMPACT PROVISION

Drawing Title
PEAK DISTRICT VIP OVERVIEW MAP

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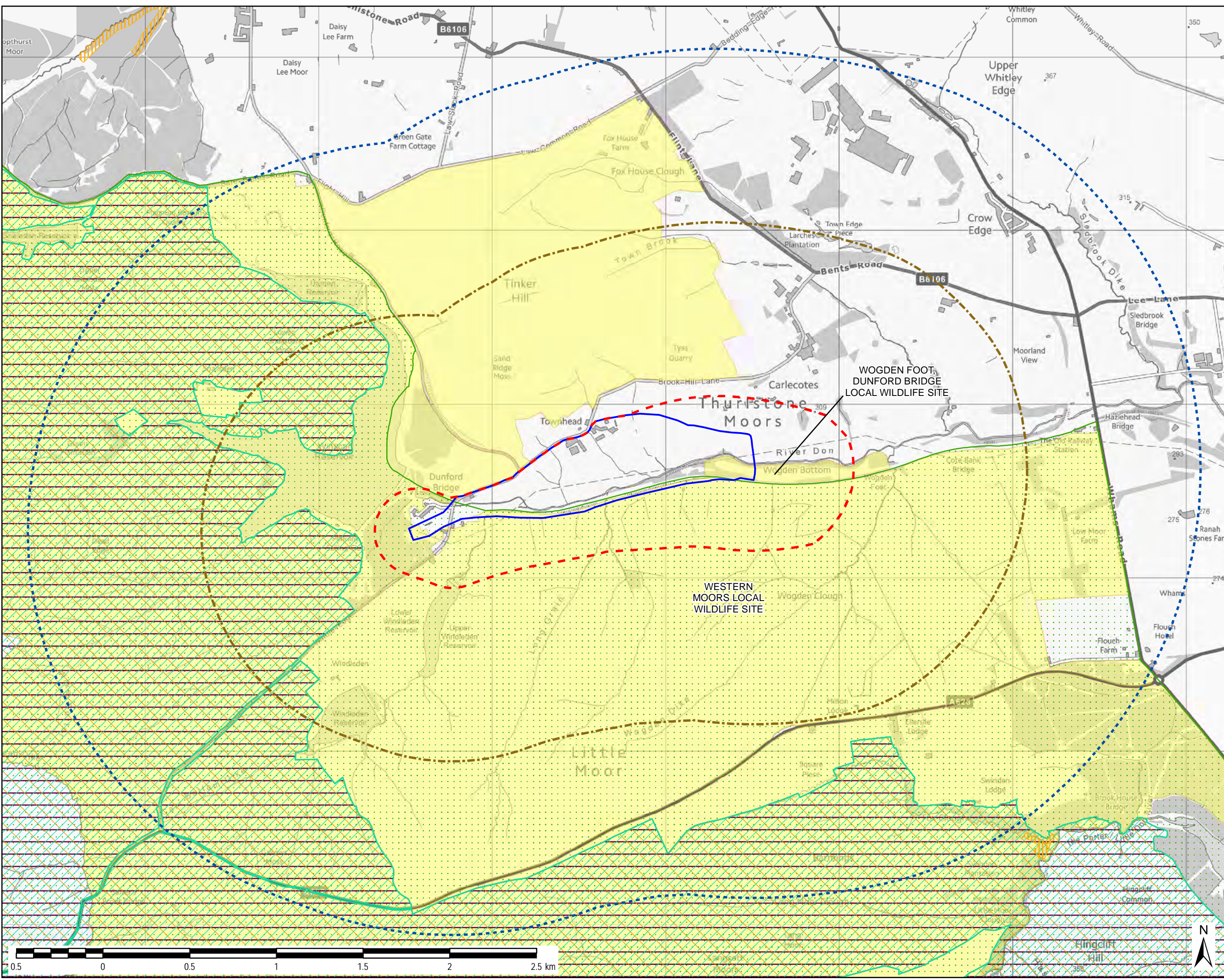
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Drawing Number FIGURE 1	Rev 02
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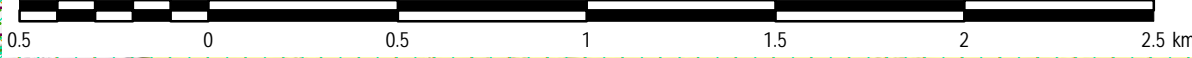
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KEY

- Ecological Survey Area
- Ecological Study Area - 1km
- Ecological Study Area - 2km
- Search Area for Permanent Development
- Ancient Woodland
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- Site of Special Scientific Interest (SSSI)
- National Park
- Local Wildlife Site

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Purpose of Issue	FINAL		
Client	NATIONAL GRID		
Project Title	VISUAL IMPACT PROVISION		
Drawing Title	PEAK DISTRICT VIP STATUTORY AND NON-STATUTORY DESIGNATIONS		
Drawn	Checked	Approved	Date
GM	AH	HM	05/07/2016
AECOM Internal Project No. 60478116		Scale @ A3 1:20,000	
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Drawing Number	FIGURE 2		Rev
			02



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- KEY**
- Ecological Survey Area
 - Search Area for Permanent Development
 - Coniferous parkland/scattered tree
 - Broadleaved parkland/scattered tree
 - × Scrub - scattered
 - Target note
 - Fence
 - Inland cliff
 - Intact hedge - species-poor
 - Running water
 - Wall
 - SI Acid grassland - semi-improved
 - SI Acid grassland - unimproved
 - Bare ground
 - Bracken - continuous
 - Broadleaved woodland - semi-natural
 - Buildings
 - SI Coniferous woodland - plantation
 - A Cultivated/disturbed land - amenity grassland
 - A Cultivated/disturbed land - arable
 - Dry heath/acid grassland
 - Hardstanding
 - I Improved grassland
 - Other exposure - acid/neutral
 - Marsh/marshy grassland
 - SI Mixed woodland - plantation
 - SI Neutral grassland - semi-improved
 - SI Neutral grassland - unimproved
 - SI Poor semi-improved grassland
 - SI Scrub - dense/continuous
 - Standing water

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Purpose of Issue
FINAL

Client
NATIONAL GRID

Project Title
VISUAL IMPACT PROVISION

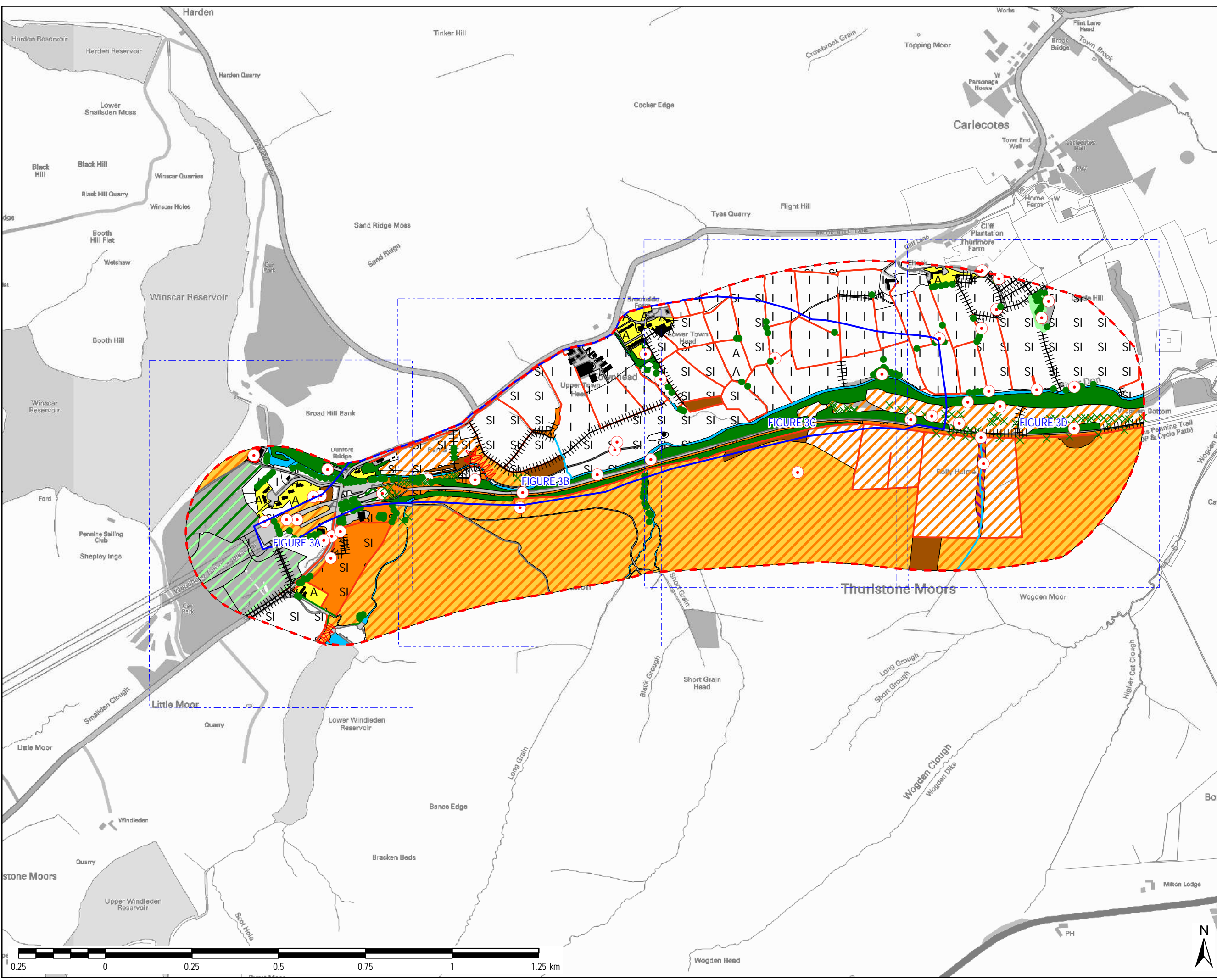
Drawing Title
**PEAK DISTRICT VIP
 PHASE 1 HABITAT SURVEY
 OVERVIEW**

Drawn GM	Checked AH	Approved CM	Date 06/07/2016
AECOM Internal Project No. 60478116		Scale @ A3 1:10,000	

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Drawing Number FIGURE 3	Rev 01
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KEY	
	Ecological Survey Area
	Search Area for Permanent Development

Project Title/Drawing Title

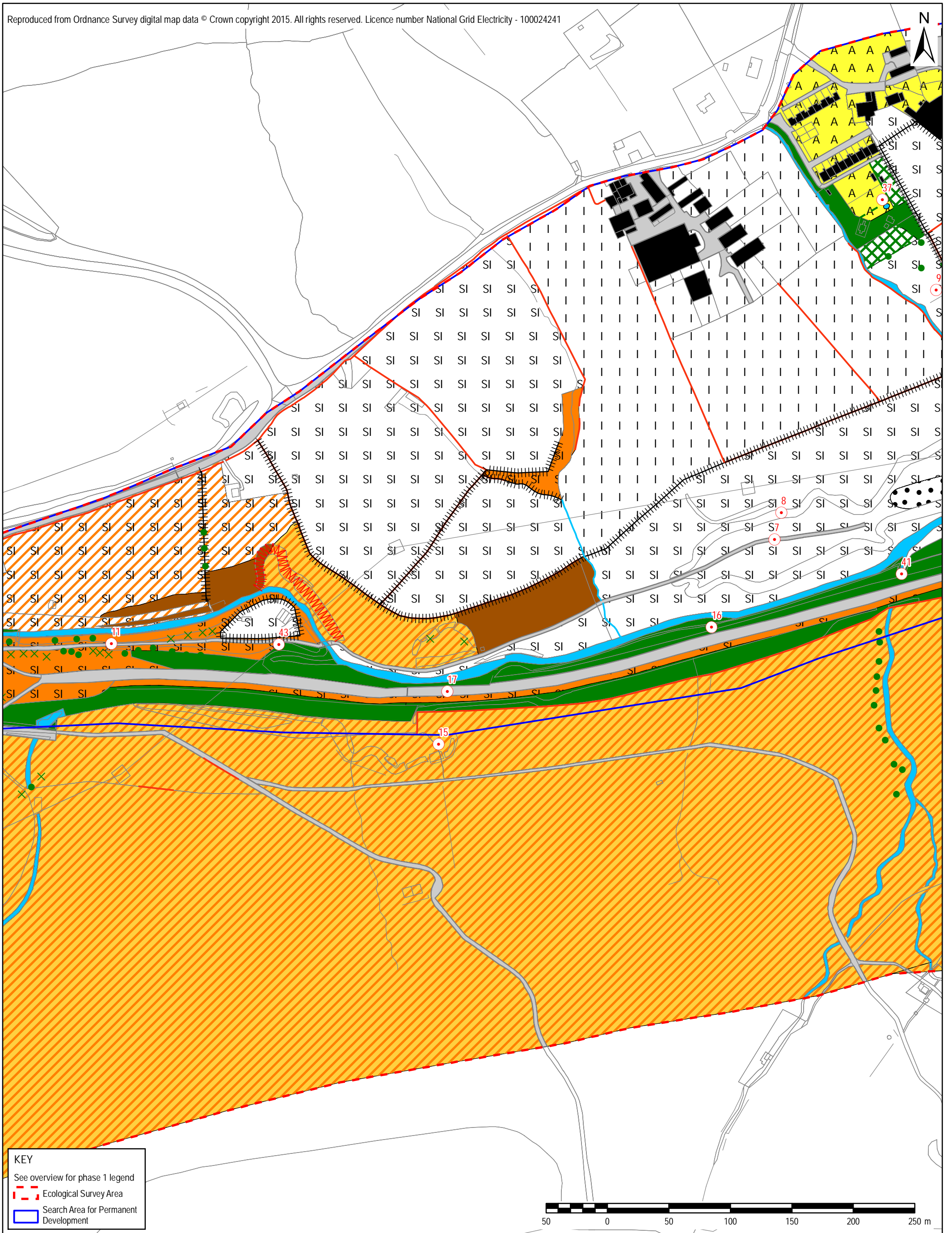
VISUAL IMPACT PROVISION

PEAK DISTRICT VIP

PHASE 1 HABITAT SURVEY


Client NATIONAL GRID		
Drawn GM	Checked AH	Approved CM
Date 06/07/2016	Scale @ A3 1:2,750	Purpose of Issue FINAL
Drawing Number FIGURE 3A		Rev 01

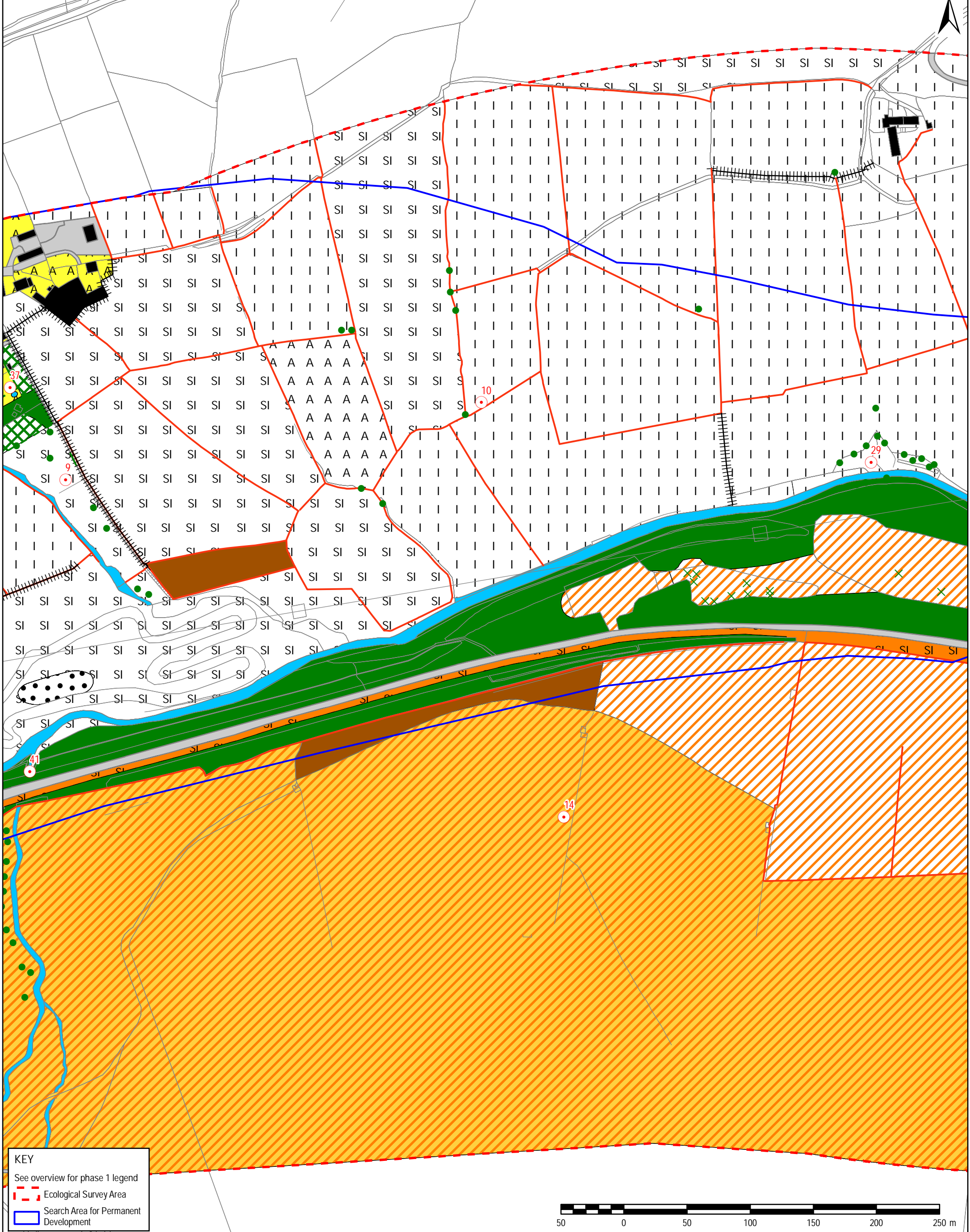
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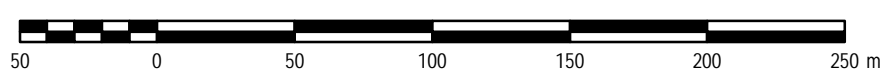
KEY	
See overview for phase 1 legend	
Ecological Survey Area	
Search Area for Permanent Development	



Project Title/Drawing Title VISUAL IMPACT PROVISION PEAK DISTRICT VIP PHASE 1 HABITAT SURVEY	Client NATIONAL GRID			AECOM Scott House Alençon Link, Basingstoke Hampshire, RG21 7PP Telephone (01256) 310200 Fax (01256) 310201 www.aecom.com  THIS DOCUMENT HAS BEEN PREPARED PURSUANT TO AND SUBJECT TO THE TERMS OF AECOM'S APPOINTMENT BY ITS CLIENT. AECOM ACCEPTS NO LIABILITY FOR ANY USE OF THIS DOCUMENT OTHER THAN BY ITS ORIGINAL CLIENT OR FOLLOWING AECOM'S EXPRESS AGREEMENT TO SUCH USE, AND ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED AND PROVIDED.
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	Drawing Number FIGURE 3B		Rev 01	

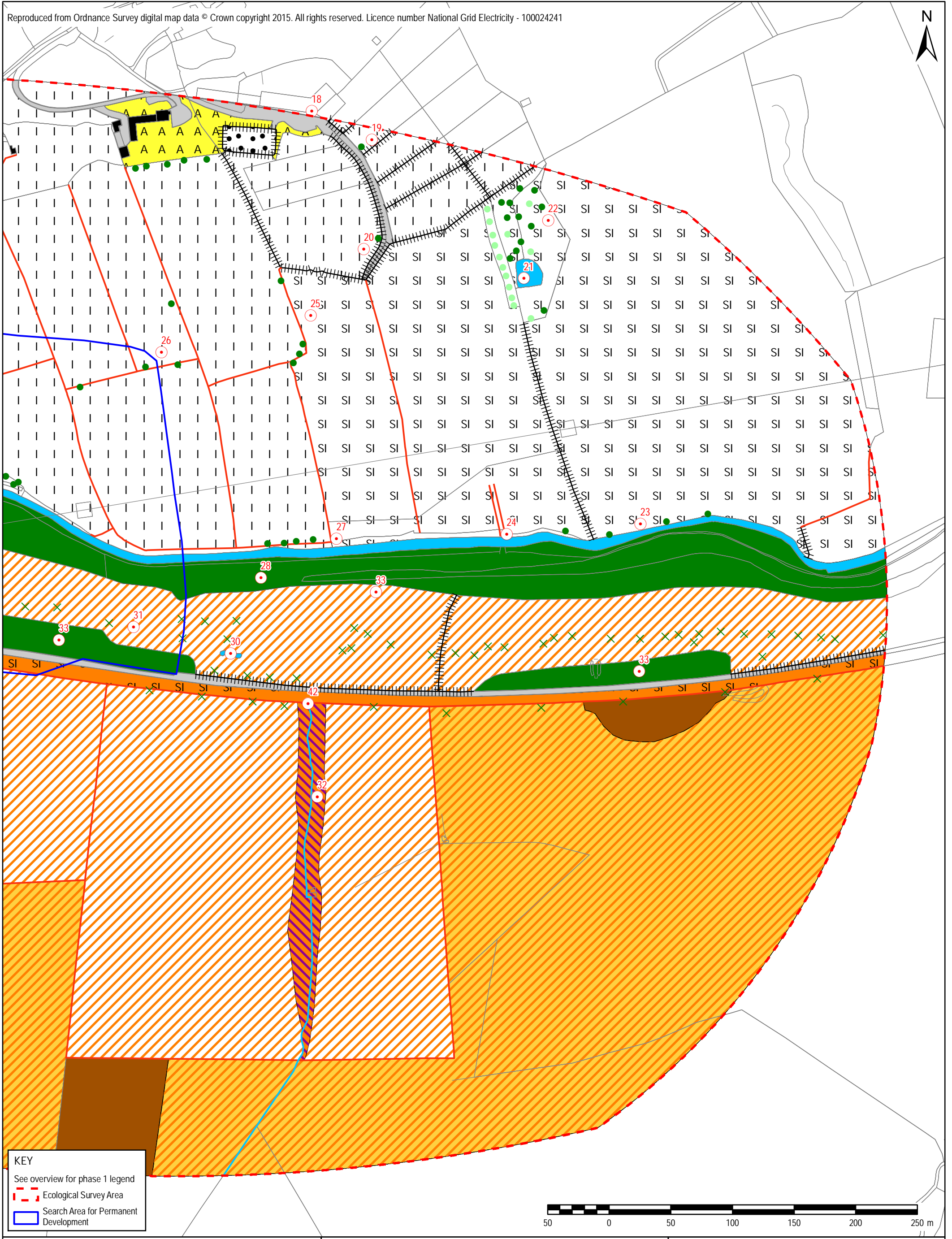


KEY	
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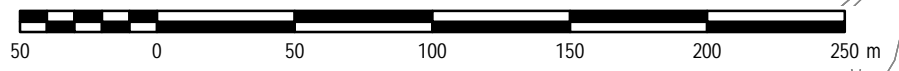



Project Title/Drawing Title VISUAL IMPACT PROVISION PEAK DISTRICT VIP PHASE 1 HABITAT SURVEY	Client NATIONAL GRID			AECOM Scott House Alençon Link, Basingstoke Hampshire, RG21 7PP Telephone (01256) 310200 Fax (01256) 310201 www.aecom.com	
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	Drawing Number FIGURE 3C	Rev 01			

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KEY	
	Ecological Survey Area
	Search Area for Permanent Development



Project Title/Drawing Title VISUAL IMPACT PROVISION PEAK DISTRICT VIP PHASE 1 HABITAT SURVEY	Client NATIONAL GRID			AECOM Scott House Alençon Link, Basingstoke Hampshire, RG21 7PP Telephone (01256) 310200 Fax (01256) 310201 www.aecom.com 
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	Date 06/07/2016	Scale @ A3 1:2,750	Purpose of Issue FINAL	
	Drawing Number FIGURE 3D		Rev 01	
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Appendix A. Relevant Legislation and Policy

Relevant Legislation and Policy

The Conservation of Habitats & Species Regulations 2010 (as amended)

The Regulations consolidate all the various amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. The Regulations came into force on 30 October 1994. In Scotland the Habitats Directive is transposed through a combination of the Habitats Regulations 2010 (in relation to reserved matters) and the 1994 Regulations. The Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) transpose the Habitats Directive in relation to Northern Ireland.

The Regulations provide for the designation and protection of 'European sites', the protection of 'European protected species', and the adaptation of planning and other controls for the protection of European Sites.

Under the Regulations, competent authorities i.e. any Minister, government department, public body, or person holding public office, have a general duty, in the exercise of any of their functions, to have regard to the EC Habitats Directive.

The Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I and II of the Habitats Directive respectively) to the European Commission. Once the Commission and EU Member States have agreed that the sites submitted are worthy of designation, they are identified as Sites of Community Importance (SCIs). The EU Member States must then designate these sites as Special Areas of Conservation (SACs) within six years. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs) classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites form a network termed Natura 2000.

The Regulations enable the country agencies to enter into management agreements on land within or adjacent to a European site, in order to secure its conservation. If the agency is unable to conclude such an agreement, or if an agreement is breached, it may acquire the interest in the land compulsorily. The agency may also use its powers to make byelaws to protect European sites. The Regulations also provide for the control of potentially damaging operations, whereby consent from the country agency may only be granted once it has been shown through Appropriate Assessment that the proposed operation will not adversely affect the integrity of the site. When considering potentially damaging operations, the country agencies apply the precautionary principle' i.e. consent cannot be given unless it is ascertained that there will be no adverse effect on the integrity of the site.

In instances where damage could occur, the appropriate Minister may, if necessary, make special nature conservation orders, prohibiting any person from carrying out the operation. However, an operation may proceed where it is or forms part of a plan or project with no alternative solutions, which must be carried out for reasons of overriding public interest. In such instances the Secretary of State must secure compensation to ensure the overall integrity of the Natura 2000 system. The country agencies are required to review consents previously granted under the Wildlife and Countryside Act 1981 for land within a European site, and may modify or withdraw those that are incompatible with the conservation objectives of the site.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Regulations make special provisions for the protection of European marine sites, requiring the country agencies to advise other authorities of the conservation objectives for a site, and also of the operations which may affect its integrity. The Regulations also enable the establishment of management schemes and byelaws by the relevant authorities and country agencies respectively, for the management and protection of European marine sites.

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 is the major domestic legal instrument for wildlife protection in the UK, and is the primary means by which the following are implemented:

- The Convention on the Conservation of European Wildlife and Natural Habitats ('the Bern Convention'); and
- The Council Directive 79/409/EEC on the Conservation of Wild birds (the 'Bird Directive')

Wild Birds

The Act makes it an offence (with exception to species listed in Schedule 2) to intentionally:

- kill, injure, or take any wild bird,
- take, damage or destroy the nest of any wild bird while that nest is in use or being built (also [take, damage or destroy the nest of a wild bird included in Schedule ZA1] under the Natural Environment and Rural Communities Act 2006), or
- take or destroy an egg of any wild bird.

Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young. The Secretary of State may also designate Areas of Special Protection (subject to exceptions) to provide further protection to birds. The Act also prohibits certain methods of killing, injuring, or taking birds, restricts the sale and possession of captive bred birds, and sets standards for keeping birds in captivity.

Other Animals

The Act makes it an offence (subject to exceptions) to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Flora, Fungi and Lichens

The Act makes it an offence (subject to exceptions) to intentionally pick, uproot or destroy:

- any wild plant listed in Schedule 8, or
- unless an authorised person, to intentionally uproot any wild plant not included in Schedule 8,
- to sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Non-native Species

The Act contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 in England and Wales. It also provides a mechanism making any of the above offences legal through the granting of licences by the appropriate authorities.

Countryside and Rights of Way (CRoW) Act 2000

The Countryside and Rights of Way Act 2000 applies to England and Wales only. Part III of the Act deals specifically with wildlife protection and nature conservation.

The Act places a duty on Government Departments and the National Assembly for Wales to have regard for the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

Schedule 9 of the Act amends SSSI provisions of the Wildlife and Countryside Act 1981, including provisions to change SSSIs and providing increased powers for their protection and management. The provisions extend powers for entering into management agreements; place a duty on public bodies to further the conservation and enhancement of SSSIs; increases penalties on conviction where the provisions are breached; and introduce a new offence whereby third parties can be convicted for damaging SSSIs. To ensure compliance with the Human Rights Act 1998, appeal processes are introduced with regards to the notification, management and protection of SSSIs.

Schedule 12 of the Act amends the species provisions of the Wildlife and Countryside Act 1981, strengthening the legal protection for threatened species. The provisions make certain offences 'arrestable', create a new offence of reckless disturbance, confer greater powers to police and wildlife inspectors for entering premises and obtaining wildlife tissue samples for DNA analysis, and enable heavier penalties on conviction of wildlife offences.

Natural Environment and Rural Communities (NERC) Act 2006

The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the (now withdrawn) UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. They include terrestrial habitats such as upland hay meadows to lowland mixed deciduous woodland, and freshwater and marine habitats such as ponds and subtidal sands and gravels.

There are 943 species of principal importance included on the S41 list. These are the species found in England which were identified as requiring action under the (now withdrawn) UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework. In addition, the hen harrier has also been included on the list because without continued conservation action it is unlikely that the hen harrier population will increase from its current very low levels in England.

Protection of Badgers Act 1992

Badgers and their setts (burrows) are protected under the Act. This makes it an offence to kill or take a badger, to cruelly ill-treat a badger, or to interfere with a badger sett, including disturbing a badger while it is occupying a sett.

Licences to permit otherwise prohibited actions can be granted under section 10 of the Act for various purposes. This includes licences to interfere with a badger sett for the purpose of development as defined by section 55(1) of the Town and Country Planning Act 1990.

Licences may be granted in order to close down setts, or parts of setts, prior to development or to permit activities close to a badger sett that might result in disturbance. A licence will be required if a sett is likely to be damaged or destroyed in the course of development or if the badger(s) occupying the sett will be disturbed.

Licences can be applied for at any time, but a licence for development will not normally be issued unless full planning permission has been granted. The closure of setts under licence is normally only permitted during July to November, inclusive.

The Hedgerow Regulations 1997

The intention of the Act is to protect important countryside hedges from destruction or damage. The Act does not apply where planning permission has been granted. There are various other exemptions under the Act, including:

- To make a new opening in substitution for an existing one that gives access to land. For example, a gate. However, the old opening must be filled in within 8 months;
- To obtain access to land where other means are not available or are only available at disproportionate cost;
- For the proper management of the hedgerow. This means real management, such as coppicing. But if the hedgerow is deliberately 'over-managed' this might qualify as removal.

If the proposed works are not exempt or subject to a current planning permission then the landowner must serve a Hedgerow Removal Notice in writing on their local planning authority. The authority then has 42 days (which period can be extended if the applicant agrees) to determine whether or not the hedge is considered 'important' under the regulations, and if so, whether or not to issue a Hedgerow Retention Notice. The local authority does not have to issue a Retention Notice, even if the hedgerow counts as important. If they do not issue a notice for an important hedge this is often on condition that certain things are done, e.g. reinstatement or replanting to a certain standard, or creation of an equivalent boundary elsewhere.

National Planning Policy Framework

The NPPF came into being in March 2012, relevant sections are as follows:

Section 11 of the NPPF relates specifically to "Conserving and Enhancing the Natural Environment". Paragraph 109 states that "*The planning system should contribute and enhance the natural and local environment by:*

- *Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- *Recognising the wider benefits of ecosystem services;*
- *Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- *Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
- *Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."*

Paragraph 113 states that “*Local Planning Authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks*”. Referenced here is ODPM Circular 06/2005, which provides further guidance re the hierarchical approach and the Circular remains extant in its entirety within the NPPF.

Paragraph 118 states that “*When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:*

- *if significant harm 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*
- *proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site’s notified special interest is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have 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;*
- *development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- *opportunities to incorporate biodiversity in and around developments should be encouraged;*
- *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and*
- *the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas and possible Special Areas of Conservation; listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”*

Paragraph 119 states “The presumption in favour of sustainable development (paragraph 14) does not apply where development requiring appropriate assessment under the Birds or Habitats Directive is being considered, planned or determined”.

**Appendix B.
Desk Study Data - Protected and
Notable Species Records**

NATURA 2000**STANDARD DATA FORM**

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	200103
date confirmed as SCI	200412
date site classified as SPA	
date site designated as SAC	200504

2. Site location:**2.1 Site centre location**

longitude	latitude
01 46 59 W	53 27 37 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK24	West Yorkshire	28.13%
UK81	Cheshire	1.35%
UK722	Staffordshire	2.93%
UK82	Greater Manchester	6.59%
UK22	North Yorkshire	1.25%
UK311	Derbyshire	38.27%
UK83	Lancashire	4.78%
UK23	South Yorkshire	16.70%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment
Northern Atlantic wet heaths with <i>Erica tetralix</i>	6.7	C	C	C	C
European dry heaths	38.8	C	B	C	B
Blanket bogs	42.2	C	C	C	B
Transition mires and quaking bogs	0.5	C	B	C	C
Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles	1	C	C	C	B

3.2 Annex II species

Species name	Population				Site assessment			
	Resident	Migratory			Population	Conservation	Isolation	Global
		Breed	Winter	Stage				

4. Site description

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	1.0
Bogs. Marshes. Water fringed vegetation. Fens	42.7
Heath. Scrub. Maquis and garrigue. Phygrana	45.5
Dry grassland. Steppes	4.8
Humid grassland. Mesophile grassland	4.8
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	1.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	0.1
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	0.1
Inland rocks. Screes. Sands. Permanent snow and ice	
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Basic, Nutrient-poor, Peat, Sandstone, Sedimentary

Geomorphology & landscape:

Crags/ledges, Hilly, Slope, Upland, Valley

4.2 Quality and importance

Northern Atlantic wet heaths with *Erica tetralix*

- for which the area is considered to support a significant presence.

European dry heaths

- for which this is considered to be one of the best areas in the United Kingdom.

Blanket bogs

- for which this is considered to be one of the best areas in the United Kingdom.

Transition mires and quaking bogs

- for which the area is considered to support a significant presence.

Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles

- for which this is considered to be one of the best areas in the United Kingdom.

4.3 Vulnerability

The South Pennine Moors SAC is largely enclosed on two sides by large industrial urban areas, which means that large numbers of people use the area for recreational activities. Around two-thirds is within the Peak District National Park. Land management is primarily driven by agriculture, rough grazing for sheep, and grouse-shooting.

Access management has been a key issue, and with proposals under the Countryside and Rights of Way Act, will continue as such. Mechanisms for addressing access management issues include a range of fora, research and the role of organisations such as the Peak District National Park and its Ranger Service. Accidental fires can cause extensive damage to vegetation. The National Park Authority has produced a strategic Fire Plan and areas are closed to the public at times of high fire risk.

Maintenance of the ecosystems relies primarily on appropriate grazing levels and burning regimes. There are a number of key pressures upon the site; these include overgrazing by sheep, burning as a tool for grouse moor management and inappropriate drainage through moor-gripping. All these issues are being tackled, and an integrated management strategy and conservation action programme has been produced as part of an EU-funded LIFE project for the area to the north of the National Park. Within the Park, the MAFF-funded North Peak and South West Peak Environmentally Sensitive Areas are important mechanisms in attempts to achieve balanced management. MAFF's Countryside Stewardship Scheme and English Nature's Wildlife Enhancement Scheme (WES) are also being used to achieve favourable management. Management of the site, especially north of the National Park, is further complicated by the large number of commons. The National Park Authority owns a significant area of moorland, as does the National Trust.

Atmospheric pollution over the last few hundred years has depleted the lichen and bryophyte flora and may be affecting dwarf-shrubs. The impact has arguably been greatest on blanket bog, wet heath and transition mire where the bog-building *Sphagnum* mosses have been largely lost. Combined with historical overgrazing, burning (accidental and deliberate), drainage and locally trampling, large areas of blanket bog have become de-vegetated and eroded. It is unclear at this stage whether the effects are irreversible. Attempts over recent decades to reverse these processes have achieved mixed and limited results. The combination of these effects means that most if not all of the blanket bog will not be classed as favourable according to English Nature's condition assessment criteria. Whilst all efforts can be made to control current factors such as current grazing and burning patterns, current atmospheric pollutant levels and access impacts, it is unclear whether this can fully mitigate the long-term influence of the historical factors such as atmospheric pollution, past burning and overgrazing. The situation is further complicated by a view that some erosion features can be considered natural phenomena of intrinsic interest. It may not therefore always be appropriate to try and revegetate bare peat even if suitable techniques exist.

The former extensive cover of woodland has declined over many centuries to the point that it is fragmented, relatively small-scale and largely restricted to steeper valley sides. There is no woodland included in the site to the north of the National Park. Remaining woods are often unfenced and open to grazing which restricts tree regeneration. In some *Rhododendron* has invaded, choking out native flora. These issues are being tackled through the Forestry Commission's Woodland Grant Scheme and Challenge Fund for creating new native woodland, MAFF's North Peak ESA and English Nature's WES though more incentive and resources are needed. As well as restoring existing stands of woodland there is an emphasis on re-creation to expand and link fragments which inevitably involves changing existing habitats. This will raise questions over the balance of vegetation types we wish to see on the site but given woodland would naturally have covered much of the area we need to treat it's expansion seriously. The flora of woodlands, quality as with bog and heath, has suffered from poor air quality. Again, it is less clear what can be done to reverse this situation other than to try and ensure continued improvements in air quality to allow affected species to recolonise if they can.

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	100.0

NATURA 2000

STANDARD DATA FORM

FOR SPECIAL PROTECTION AREAS (SPA)
FOR SITES ELIGIBLE FOR IDENTIFICATION AS SITES OF COMMUNITY IMPORTANCE (SCI)
AND
FOR SPECIAL AREAS OF CONSERVATION (SAC)

1. Site identification:

1.1 Type 1.2 Site code

1.3 Compilation date 1.4 Update

1.5 Relationship with other Natura 2000 sites

1.6 Respondent(s)

1.7 Site name

1.8 Site indication and designation classification dates

date site proposed as eligible as SCI	
date confirmed as SCI	
date site classified as SPA	199603
date site designated as SAC	

2. Site location:

2.1 Site centre location

longitude	latitude
01 45 51 W	53 28 03 N

2.2 Site area (ha) 2.3 Site length (km)

2.5 Administrative region

NUTS code	Region name	% cover
UK81	Cheshire	1.95%
UK311	Derbyshire	55.48%
UK23	South Yorkshire	24.43%
UK722	Staffordshire	5.92%
UK24	West Yorkshire	7.01%
UK82	Greater Manchester	5.22%

2.6 Biogeographic region

Alpine

Atlantic

Boreal

Continental

Macaronesia

Mediterranean

3. Ecological information:

3.1 Annex I habitats

Habitat types present on the site and the site assessment for them:

Annex I habitat	% cover	Representativity	Relative surface	Conservation status	Global assessment

3.2 Annex I birds and regularly occurring migratory birds not listed on Annex I

Code	Species name	Population			Site assessment			
		Resident	Migratory		Population	Conservation	Isolation	Global
			Breed	Winter				
A222	<i>Asio flammeus</i>		>22 P		C		C	
A098	<i>Falco columbarius</i>		>30 P		C		B	
A140	<i>Pluvialis apricaria</i>		>435 P		C		C	

4. Site description:

4.1 General site character

Habitat classes	% cover
Marine areas. Sea inlets	
Tidal rivers. Estuaries. Mud flats. Sand flats. Lagoons (including saltwork basins)	
Salt marshes. Salt pastures. Salt steppes	
Coastal sand dunes. Sand beaches. Machair	
Shingle. Sea cliffs. Islets	
Inland water bodies (standing water, running water)	1.0
Bogs. Marshes. Water fringed vegetation. Fens	35.0
Heath. Scrub. Maquis and garrigue. Phygrana	40.0
Dry grassland. Steppes	16.0
Humid grassland. Mesophile grassland	6.0
Alpine and sub-alpine grassland	
Improved grassland	
Other arable land	
Broad-leaved deciduous woodland	1.0
Coniferous woodland	
Evergreen woodland	
Mixed woodland	
Non-forest areas cultivated with woody plants (including orchards, groves, vineyards, dehesas)	
Inland rocks. Screes. Sands. Permanent snow and ice	1.0
Other land (including towns, villages, roads, waste places, mines, industrial sites)	
Total habitat cover	100%

4.1 Other site characteristics

Soil & geology:

Acidic, Nutrient-poor, Peat, Sandstone, Sedimentary

Geomorphology & landscape:

Crags/ledges, Escarpment, Hilly, Upland, Valley

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC)

During the breeding season the area regularly supports:

<i>Asio flammeus</i>	at least 2.2% of the GB breeding population Count, as at 1990 and 1998
<i>Falco columbarius</i>	at least 2.3% of the GB breeding population Count as at 1990 and 1998
<i>Pluvialis apricaria</i> (North-western Europe - breeding)	at least 1.9% of the GB breeding population Count, as at 1990 and 1998

ARTICLE 4.2 QUALIFICATION (79/409/EEC)

4.3 Vulnerability

Major urban and industrial centres near to the Peak District Moors provide significant visitor pressure and approximately two-thirds of the moorlands are open to public access. Habitat damage through physical erosion or fire, combined with disturbance of breeding birds, can be significant. Initiatives for sustainable recreation are being developed. Many habitats are sub-optimal (in vegetation terms) as a consequence of historic air pollution, high grazing pressure and wildfire burns. Grazing pressure is generally being lowered and appropriate burning encouraged by two separate ESAs which encourage and support habitat restoration. Notwithstanding these schemes, evidence suggests that breeding birds in the south-west of the area may be declining on both open moorland and enclosed rough grazing land, possibly due to general agricultural improvement of the surrounding areas which are used by some species for some of their habitat requirements; e.g. golden plovers feed on in-by land off the moor.

It is also worth noting that the site has been identified as a possible SAC for habitats such as blanket bog and there will be a need to balance the management of the different interests across the whole site

5. Site protection status and relation with CORINE biotopes:

5.1 Designation types at national and regional level

Code	% cover
UK04 (SSSI/ASSI)	99.9

Notification date: 8 July 1993

COUNTY: DERBYSHIRE, SOUTH YORKSHIRE, WEST YORKSHIRE,
GREATER MANCHESTER

SITE NAME: DARK PEAK

DISTRICT: HIGH PEAK, SHEFFIELD,
BARNSELY, KIRKLEES,
OLDHAM, TAMESIDE

SITE REF: 15 WKZ

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act, 1981, as amended.

Local Planning Authority: PEAK PARK JOINT PLANNING BOARD, High Peak Borough Council, Sheffield City Council, Barnsley Metropolitan Borough Council, Kirklees Metropolitan Council, Oldham Metropolitan Borough Council, Tameside Metropolitan Borough Council

National Grid Reference: SK 110960

Area: 31,852.85 (ha.) 78,708.4 (ac.)

Ordnance Survey Sheet 1:50,000: 110, 119

1,10,000: SE 00 NW, NE, SW, SE,
SE 01 SW, SE, SE 10 NW,
SW, SE, SE 20 SW,
SK 08 NW, NE, SE,
SK 09 NW, NE, SW, SE,
SK 18 NW, NE, SW,
SK 19 NW, NE, SW, SE,
SK 29 NW, SW

Date Notified (Under 1949 Act): 1951

Date of Last Revision: 1972

Date Notified (Under 1981 Act): 1993

Date of Last Revision: –

Other Information:

Site boundary modified by major extension and minor deletion. The site incorporates the former SSSIs known as Kinder and Bleaklow, Mill Clough, Ladybower Tor, Alport Castles. Part of the site is listed in 'A Nature Conservation Review'; edited by D A Ratcliffe, Cambridge University Press, 1977.

Site Description and Reasons for Notification:

The main moorland area of the Peak District, known as the Dark Peak, lies to the north of the central limestone dome of the White Peak and extends through the Counties of West and South Yorkshire to the boundary of the National Park at Standedge. It includes the summits of Kinder Scout and Bleaklow in Derbyshire and Black Hill in West Yorkshire. This is wild, open and more or less continuous moorland, predominantly at an altitude of 400–600 m and broken only by trans-pennine roads from Manchester to Sheffield, over the Snake Pass; from Manchester to Barnsley along the Longdendale valley and over the Woodhead Pass and from Oldham to Huddersfield over Wessenden Head Moor. The Peak District moorlands overlie the grits, shales, sandstones and mudstones of the Millstone Grit series. The whole area is part of the Pennines anticline; the rocks sloping gently towards the east such that most of the gritstone edges face west where they occur along abrupt faults of downfolds in the strata.

The millstone grit weathers to produce a coarse, gravelly soil which may become podsolised through leaching by the 1500 mm rainfall of the region. More usually however, the gritstone is overlain by blanket peat which reaches its greatest depth on the plateaux. Blanket peat stretches the length and breadth of the Dark Peak with

natural breaks only on the steep slopes below the Kinder Scout plateau and along the Longdendale valley. It has formed since the last glaciation and peat development has been more substantial here than elsewhere in Britain, probably because deforestation occurred here earlier than elsewhere.

The present extent of peat was probably reached some 4,000 years ago and the Dark Peak peats being both old and deep display erosion which may be in part a natural, cyclical process that has been occurring on and off, since the onset of peat formation. Degeneration of the peat to an erosion complex has been accelerated by man-induced factors including pollution, burning and over-grazing. Blanket mire vegetation is particularly susceptible to atmospheric pollution from the surrounding cities. The thin soils and naturally acidic peat are a poor buffer for acid deposition. Also many plants growing in peatlands receive their nutrients from the atmosphere, which brings them into direct contact with pollutants. Atmospheric pollution has led to the loss of practically all bog mosses *Sphagnum*. Once vegetation has been lost and the peat exposed, erosion and oxidation of the peat inhibit plant recolonisation. Peat formation and erosion has been studied quite extensively in the Dark Peak by a number of researchers and the area is renowned for a wide range of erosion facies including linear, reticulate and sheet erosion, and extensive areas of characteristic grough and hagg topography.

The combination of plateaux blanket mires; wet and dry heaths and acid grasslands, together with associated flushes and mires on moorland slopes, represents an extensive tract of semi-natural upland vegetation typical of and including the full range of moorland vegetation of the South Pennines. Several vegetation types, plants and animals are at either the southern or northern limits of their distribution in this country. The Dark Peak moorlands support the full range of breeding birds found in the South Pennines, some of which are represented at their southern most viable English locations. The moorland breeding bird assemblage is of great regional and national importance. It includes internationally important populations of several species, listed in the European Commission Birds Directive as requiring special conservation measures. Many physical features of the Dark Peak are of geological interest and six such localities of special interest are described under the heading 'Geology'.

Vegetation

The blanket peats of the Dark Peak show the full range of blanket bog and soligenous mire mesotopes found in the region, and contain variable proportions of cotton grasses *Eriophorum* spp. and dwarf shrubs such as crowberry *Empetrum nigrum*, heather *Calluna vulgaris*, and bilberry *Vaccinium myrtillus*. In some areas the vegetation is dominated solely by hare's-tail cotton grass *Eriophorum vaginatum*. The site shows the full range of erosional features, and here the blanket mire is characterised by an abundance of crowberry and bilberry. The abundance of crowberry in uneroded cotton grass mire and on severely hagged peat has no parallel in Britain outside the southern Pennines. Common cotton grass *Eriophorum angustifolium* typically occurs throughout the blanket mires, but only becomes abundant on the deeper peats of the watershed. Heather is widespread and locally abundant or dominant on the blanket mires of Derbyshire and South Yorkshire. Associated higher plants of the blanket mire include cross-leaved heath *Erica tetralix*, usually no more than thinly scattered, crowberry *Vaccinium vitis-idaea* and cloudberry *Rubus chamaemorus*, an arctic-alpine species at the south-eastern limits of its British distribution. Cloudberry is locally frequent beneath heather, for example on Cloudberry Moor and amongst cotton grasses on Featherbed Top. Crowberry is more characteristic of hags and some drier blanket peat margins, for example on Edale Moor. Other plants which are characteristic of these communities include deer grass *Trichophorum cespitosum* and cranberry *Vaccinium oxycoccos*, which mainly occurs on the blanket mires of the High Peak. The nationally rare Labrador tea *Ledum palustre*, grows at a few localities.

As a result of high levels of atmospheric pollution, the blanket mires of the Dark Peak are poor in bog and other mosses sensitive to pollution. Within the deeper eroding peats there are abundant remains of a range of bog mosses indicating the former presence of a hummock-hollow system. There are a few areas where some bog mosses still occur including *Sphagnum capillifolium*, the most frequent bog moss within unmodified Pennine blanket mire, and *Sphagnum cuspidatum*, the main bog pool species in north western Britain.

Below the watersheds, the vegetation of the lower moorland areas largely consists of heathland dominated by heather, with areas of acidic grassland, and these areas display the full range of acidophilous dwarf shrub heath and acid grassland found in the region. Some of the heather moors have been regularly burnt to provide a supply of nutritious shoots for either red grouse *Lagopus lagopus* or for sheep. A variable proportion of other dwarf shrubs, mainly bilberry and crowberry may be found beneath heather and in older stands these may become locally predominant where heavy grazing has reduced the dominance of heather. Hypnaceous mosses are characteristically absent from the heather communities of the Dark Peak, except in some old stands of heather, particularly on steep cloughs and occasionally in bilberry heath. Cowberry is locally frequent amongst bilberry, particularly east of the Derwent Valley where in some areas it exceeds bilberry to become completely dominant, a most unusual condition in Britain, and bearberry *Arctostaphylos uva-ursi* is present at several locations in the Derwent valley; its southern-most station in Britain. Other locally uncommon plants present in the Dark Peak heathlands include common cow wheat *Melampyrum pratense*, which grows on the Langsett Moors, and dyer's greenweed *Genista tinctoria*, on the Broomhead Moors.

Wet heaths are of limited extent in the Dark Peak. Small stands of co-dominant heather, cross-leaved heath, and purple moor grass *Molinia caerulea*, are found in several areas, for example on the Derwent Moors. In some areas of the Derwent and Longdendale valleys a combination of burning and overgrazing has replaced wet heath vegetation with extensive stands of purple moor grass, to form a species-poor tussocky grassland.

Around the edges of the Dark Peak, continuous heavy grazing has replaced much heathland with some form of acid grassland. These unenclosed grasslands are, on the whole, species poor and dominated by a few species such as mat grass *Nardus stricta* and wavy hair-grass *Deschampsia flexuosa* with varying amounts of bracken *Pteridium aquilinum* or short bilberry. Wavy hair-grass is characteristic of eroding blanket peat margins, newly exposed mineral soils and shallow soils on heavily grazed slopes. Heath rush *Juncus squarrosus* is often present and is locally abundant or dominant, particularly on re-distributed peat. Purple moor grass dominates on some wet slopes.

The most botanically rich communities in the Dark Peak are the smaller mires and flushes, beneath springs and along seepage lines and streams. A wide variety of different types are found including the best example of a transitional valley mire in the Peak District. Also of note are mosaics of soligenous mires and transitions to valley mire and wet heath. The most common types of mire and flush are dominated by rushes, particularly soft rush *Juncus effusus*, or by common cotton grass, and these typically support star sedge *Carex echinata*, the bog moss *Sphagnum recurvum* and the moss *Polytrichum commune*; together with a range of other vascular plants such as marsh violet *Viola palustris*, bog asphodel *Narthecium ossifragum* and marsh pennywort *Hydrocotyle vulgaris*. Common cotton grass mires typically hold sizeable populations of cranberry and some feature round-leaved sundew *Drosera rotundifolia*, an uncommon species in the South Pennines. A complex of cotton grass flushes by Emlin Dike on the Bradfield Moors area has

the largest population of this species, of the order of tens of thousands of individual plants, in the Peak District.

Seepage lines through common cotton grass mires and below springs can be particularly rich in herbs, with blinks *Montia fontana*, bog pondweed *Potamogeton polygonifolius*, water forget-me-not *Myosotis secunda* and occasionally lesser spearwort *Ranunculus flammula* and round-leaved crowfoot *Ranunculus omiophyllus*. Lesser skullcap *Scutellaria minor*, a species near the north eastern limit of its range in Britain, is present at several localities.

Where the mires are relatively rich in mineral salts, various sedges such as carnation sedge *Carex panicea*, are often prominent. Several locally uncommon herbs such as devil's-bit scabious *Succisa pratensis*, sneezewort *Achillea ptarmica*, marsh arrow grass *Triglochin palustris* and spotted orchid *Dactylorhiza maculosa* add interest to these communities. Bog pimpernel *Anagallis tenella* may be found in lawns of brown mosses and butterwort *Pinguicula vulgaris* is present in several stony flushes, particularly in the Derwent area. There are also a number of sites for the locally rare ivy-leaved bellflower *Wahlenbergia hederacea*, here at the north eastern limit of its British distribution. In contrast to the blanket mires of the watershed, the flushes and related communities invariably support several species of bog moss, with as many as ten species present in one area.

On inaccessible cliff ledges, beech fern *Phegopteris connectilis*, oak fern *Gynnocarpium dryopteris* and marsh hawk's-beard *Crepis paludosa* often grow, usually where there is some flushing and frequently alongside greater wood rush *Luzula sylvatica*, another species sensitive to grazing. These three more locally rare plants are, with the exception of a few outlying stations, at the south eastern limit of their British range.

Many of the Dark Peak's woodlands have been open to grazing in recent times and have consequently suffered from lack of regeneration. Sessile oak *Quercus petraea* wood is the main type of woodland present and is characteristic of shallow soils on the steep slopes of cloughs. It typically consists of oak and birch *Betula* spp. over a ground flora dominated by wavy hair-grass which at some sites also includes bilberry and buckler fern *Dryopteris dilatata*.

Small areas of species-rich alder *Alnus glutinosa* woodland are also present along some cloughs, with species such as yellow pimpernel *Lysimachia nemorum*, opposite-leaved golden saxifrage *Chrysosplenium oppositifolium*, wood sorrel *Oxalis acetosella* and mountain fern *Oreopteris limbosperma*. Small areas of willow *Salix* carr are also present, for example in the Alport valley.

Birds

The vast blanket mires of the Dark Peak plateaux support nationally important breeding populations of golden plover *Pluvialis apricaria* (1.7% of the British population) and dunlin *Calidris alpina* (0.9% of the British population) as well as very significant numbers of meadow pipit *Anthus pratensis*, the most common passerine throughout the area. Dunlin tend to concentrate into a few areas of blanket mire without significant amounts of heather. Their density is typical of those other moorlands, where they occur, in Northern England and Scotland. Golden Plover by contrast are common throughout most of the Dark Peak, although they tend to be associated more strongly with the high altitude plateaux towards the centre of the moorland blocks and the density of breeding birds is high compared to other populations to the north. Meadow pipits and other small song birds form the staple prey of merlin *Falco columbarius*.

On the better draining slopes below the plateaux blanket mire, areas of heath and acid grassland support significant numbers of breeding curlew *Numenius arquata*

red grouse *Lagopus lagopus*, merlin (3.3% of the British population), short-eared owl *Asio flammeus* (1.1 % of the British population) and twite *Carduelis flavirostris*. Curlew show a marked tendency towards the lower altitude heath and grassland around the periphery of the moorlands in the south, but are more evenly distributed in the north where they also breed on blanket mire. Red grouse are strongly associated with heather-dominated vegetation and are common throughout the area, though their stronghold appears to be towards the west of the Dark Peak. The heather moors of the Dark Peak provide the breeding habitat for an expanding and nationally important population of merlin. They nest in stands of old leggy heather often near the head of valleys where they can command a view over the surrounding moorland. Although short-eared owls are still a rare breeding bird of the area and the size of the population fluctuates between years, it is probable that there has been an increase in the population and the numbers which have bred in recent years are of national importance.

The south Pennine population of breeding twite is probably of international significance. Not only is it the most southern population in Britain, but it is also isolated from other populations in Scotland, Ireland and Scandinavia which are themselves disjunct from those birds occupying the mountains of Central Asia. Over a quarter of the south Pennine birds breed within the Dark Peak, (only a few breed further south on other Peak District moorlands), so this site is important to the maintenance of this population. Twite are found in locations throughout the Dark Peak, but are particularly concentrated in the north east where they favour a mixture of habitats including tall heather for nesting and roosting and rough grassland areas for feeding.

Peregrine *Falco peregrinus*, like merlin, have enjoyed a post-pesticide recovery and are increasing in numbers (0.8% of the British population) but they still remain a rare breeding bird throughout the Dark Peak. Some cloughs and gritstone edges, with their associated boulder strewn slopes with bracken, support significant populations of ring ouzel *Turdus torquatus* (0.7% of the British population), many wheatear *Oenanthe oenanthe* and small populations of whinchat *Saxicola rubetra*, which appear to be associated with bracken heaths.

The woodlands of the Dark Peak support small numbers of woodland and woodland edge birds such as tree pipit *Anthus trivialis*, redstart *Phoenicurus phoenicurus* and green woodpecker *Picus viridus*. In addition, wood warbler *Phylloscopus sibilatrix* and pied flycatcher *Ficedula hypoleuca* breed on a regular basis in Ladybower Wood.

The major moorland blocks are dissected by large rivers. The upland tributaries which feed them, together with moorland reservoirs, provide a habitat for small populations of waterside birds. Dipper *Cinclus cinclus* are rare breeding birds and grey wagtail *Motacilla cinerea* are thinly distributed across the Dark Peak streams. Common sandpiper *Actitis hypoleucos* breed on some streams and small upland reservoirs, but are more commonly found on the shores of the larger rivers and reservoirs nearby.

Invertebrates

Trapping of invertebrates, mainly in the 1970s and 1980s, has begun to reveal a rich and varied upland fauna. The moth fauna includes species such as red carpet *Xanthorhoe munitata*, northern eggar *Lasiocampa quercus callunae*, northern rustic *Standfussiana lucerneae*, and two nationally scarce species, golden rod brindle *Lithomoia solidaginis* and small autumnal moth *Epirrita filigrammaria*. A nationally scarce hover fly *Eristalis rupium* has been recorded. The only known breeding site in the county of Derbyshire for the golden-ringed dragonfly *Cordulegaster boltonii* occurs within the SSSI.

The site has a particularly good beetle fauna. Seven nationally scarce species have been recorded in a variety of habitats, including *Miscodera arctica* from heather moorland and dry gritstone grassland; a Red Data Book (RDB) species, *Hydnobius spinipes* from the roots of rushes; *Leptusa norvegica* from deadwood; the RDB species, *Leiodes picea* and *Omalium laticolle* from woodland soils and litter; and *Bolitochora mulsanti*, and *Phyllodrepoidea crenata* in association with woodland fungi.

Geology

Six locations of special geological interest are identified within the Dark Peak: a land-slip, the rocks exposed behind the land-slip, a classic example of stream erosion on peat, an area of delta-formed sedimentary rock, an area of river evolution and an area of classic peat erosion.

Alport Castles (SK142914) is the largest inland landslide in England where there is demonstrably no connection with the processes of marine erosion. It comprises a massive single block movement involving the whole valley side, from crest to the river, leaving a high vertical backface, a tall pinnacled ridge and a massive flat-topped detached sandstone mass. A complex range of features associated with landslipping in the Millstone Grit is found and the cliff behind, the landslide exposes valuable sections through rocks laid down in mid-Carboniferous times, some 320 million years ago, including the Shale Grit of Kinderscoutian age. These rocks were laid down on the margins of a vast delta which occupied this area at that time, and provide a valuable area of research for geologists. The extensive exposures in this area display a wide selection of sedimentary features, the study of which has led to a greater understanding of turbidite deposition on the apron of a large delta.

Bleaklow (SK 183965) (Bull Clough Head) on Howden moors is considered a classic example of stream erosion in peat. Additionally, the headwaters of two river systems meet here, and the tributaries of the River Derwent have captured some of the headwater streams of the River Little Don, through their greater erosive power. This site is of great interest in studies of the development of river landforms.

At **Blackden Brook** (SK 115884–130893), rock outcrops within the site provide an excellent and almost continuous sequence through sandstones and shales formed about 310 million years ago during the Carboniferous Period. The rocks which include the Shale Grit, Grindslow Shales and Lower Kinderscout Grit, originally accumulated as sediment on a large delta built southwards by a major river which flowed from uplands to the north. This succession has provided valuable information about the various stages associated with the advancement of the Kinder Scout Delta. A number of sediment associations were first recognised in this sequence, which illustrates the great variability of delta slope depositional processes.

The form of the **Alport Valley** (SK118938) and other features within it are characteristic of river landforms developed on bedrock. Within this section of the valley a wide range of features can be seen, illustrating many aspects of the evolution of the river and is thus a valuable site for study and research of river landforms.

Featherbed Moss (SK 094024) is an important site for studies of Flandrian vegetation history and peat erosion in the Pennines. Pollen analysis and radio carbon dating have provided a detailed record of vegetation changes and peat development. From this record, two main periods of active peat erosion are identifiable during the last 200 years and c. 900 AD. The site contains all the peat erosion types now recognised in the southern Pennines and is important for studies of both past and present peat hydrology and erosion.

Data received from Barnsley Biological Records Centre on 13/11/15													
Location	Grid Ref	Location Name	Date	TextDate	Taxon Group	Scientific Name	Common Name	BAP Species	Life and Countryside and Amber birds	Easting	Northing	Comments	
Western Moors LWS	SE10	Thurlstone Moors	21/01/2014 00:00	21/01/2014	terrestrial mammal	Meles meles	Badger	0.00	0.00	0.00	415000.00	405000.00	Fresh tracks in wet peat.
Little Don Valley (above Lar	SE10	plantation	06/02/2013 00:00	06/02/2013	terrestrial mammal	Meles meles	Badger	0.00	0.00	0.00	415000.00	405000.00	sett
'BARNSELY MBC'	SE30	Dick Royd Farm	11/06/2010 00:00	11/06/2010	terrestrial mammal	Pipistrellus pipistrellus 45k	45 Khz Pipistrelle	0.00	0.00	0.00	435000.00	405000.00	1 feeding
Western Moors LWS	SE10	Fields off Swinden Lane	22/07/2014 00:00	22/07/2014	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields off Law Common Road	24/03/2014 00:00	24/03/2014	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Cocker Edge	12/03/2014 00:00	12/03/2014	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	415000.00	405000.00	Near Tyas Quarry.
Wogden Foot LWS	SE1702	Middle section	26/02/2014 00:00	26/02/2014	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	417500.00	402500.00	Just inside boundary fence.
Western Moors LWS	SE10	Fields south-west of Reddishaw Knoll PH	07/02/2014 00:00	07/02/2014	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed on south side of drain.
Western Moors LWS	SE10	Reddishaw Knoll	13/01/2014 00:00	13/01/2014	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	415000.00	405000.00	
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	419500.00	401500.00	Many tracks in snow.
Dunford Bridge TP Trail	SE10		09/01/2013 00:00	09/01/2013	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	415000.00	405000.00	1 live
Crow Edge	SE1804	Banks' site	02/02/2012 00:00	02/02/2012	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	418500.00	404500.00	brown hare, 2 No. spoil heap
Crow Edge	SE1804	Banks' site	02/02/2012 00:00	02/02/2012	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	418500.00	404500.00	On spoil heap
'BARNSELY MBC'	SE30	Barnsley	03/04/2009 00:00	03/04/2009	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	435000.00	405000.00	None
'BARNSELY MBC'	SE30	Barnsley	03/04/2009 00:00	03/04/2009	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	435000.00	405000.00	None
'BARNSELY MBC'	SE30	Tinker Hill	03/04/2009 00:00	03/04/2009	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	435000.00	405000.00	1 live in Calluna/grass
'BARNSELY MBC'	SE30	Tinker Hill	03/04/2009 00:00	03/04/2009	terrestrial mammal	Lepus europaeus	Brown Hare	1.00	0.00	0.00	435000.00	405000.00	1 live in Calluna/grass
Carlecotes	SE10		12/10/2014 00:00	12/10/2014	terrestrial mammal	Erinaceus europaeus	Hedgehog	1.00	0.00	0.00	415000.00	405000.00	Dead on road
Western Moors LWS	SE10	Smallden Clough	07/03/2015 00:00	07/03/2015	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	1 hare flushed at close range, altitude 400m a.s.l.
Western Moors LWS	SE10	Thurlstone Moors	22/07/2014 00:00	22/07/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from heather near top of Long Grough.
Western Moors LWS	SE10	Windleden Edge	01/04/2014 00:00	01/04/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	dead on road
Western Moors LWS	SE10	Cocker Edge	12/03/2014 00:00	12/03/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Near Crowbrook Grain.
Western Moors LWS	SE10	Cocker Edge	12/03/2014 00:00	12/03/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Near Crowbrook Grain.
Western Moors LWS	SE10	Thurlstone Moors	04/03/2014 00:00	04/03/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Near Long Grain Head.
Western Moors LWS	SE10	Thurlstone Moors	04/03/2014 00:00	04/03/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Near Long Grain Head.
Western Moors LWS	SE10	Barmings	01/03/2014 00:00	01/03/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from mature heather.
Western Moors LWS	SE10	Barmings	01/03/2014 00:00	01/03/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from mature heather.
Western Moors LWS	SE10	Nubbuck End	18/02/2014 00:00	18/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from bracken in fields above clough.
Western Moors LWS	SE10	Fields at Nubbuck End	18/02/2014 00:00	18/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from bracken in fields above clough.
Western Moors LWS	SE10	Verge of A628	18/02/2014 00:00	18/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Recently dead.
Western Moors LWS	SE10	Fields at Nubbuck End	18/02/2014 00:00	18/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from bracken in fields above clough.
Western Moors LWS	SE10	Verge of A628	18/02/2014 00:00	18/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Recently dead.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Grazing on edge of burnt area near Wogden Head.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from scrape under mature heather in upper part of Wogden Clough.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Grazing on edge of burnt area near Wogden Head.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Flushed from scrape under mature heather in upper part of Wogden Clough.
Western Moors LWS	SE10	Windleden Clough	04/02/2014 00:00	04/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Dead.
Western Moors LWS	SE10	Windleden Clough	04/02/2014 00:00	04/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Dead.
Western Moors LWS	SE10	Windleden Clough	04/02/2014 00:00	04/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Dead.
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Crouching in heather near Short Grain Head.
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Crouching in heather near Short Grain Head.
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	Near lower part of Wogden Clough.
Western Moors LWS	SE10	Thurlstone Moors	12/05/2012 00:00	12/05/2012	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	1 fresh dead on moor brown pelage
Western Moors LWS	SE10	A628	01/03/2012 00:00	01/03/2012	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	dead on road white
'BARNSELY MBC'	SE30	Salter's Brook Moss	04/07/2011 00:00	04/07/2011	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	435000.00	405000.00	1 live flushed from boggy area
Western Moors LWS	SE10	Gallow's Moss	08/03/2010 00:00	08/03/2010	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	4 Road kills, A628
Western Moors LWS	SE10	Fiddler's Green	08/03/2010 00:00	08/03/2010	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	4 Road kills, A628
Western Moors LWS	SE10	Stone Rucks	08/03/2010 00:00	08/03/2010	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	2 Road kills, A628
Western Moors LWS	SE10	Gallow's Moss	08/03/2010 00:00	08/03/2010	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	4 Road kills, A628
Western Moors LWS	SE10	Fiddler's Green	08/03/2010 00:00	08/03/2010	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	4 Road kills, A628
Western Moors LWS	SE10	Stone Rucks	08/03/2010 00:00	08/03/2010	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	2 Road kills, A628
Western Moors LWS	SE10	Fiddlers Green	15/02/2010 00:00	15/02/2010	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	1 dor
'BARNSELY MBC'	SE30	Barnsley	28/08/2005 00:00	28/08/2005	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	435000.00	405000.00	present
Western Moors LWS	SE10	Lower Dead Edge	28/08/2005 00:00	28/08/2005	terrestrial mammal	Lepus timidus	Mountain Hare	1.00	0.00	0.00	415000.00	405000.00	1 live
Western Moors LWS	SE10	Windleden Edge	22/04/2015 00:00	22/04/2015	reptile	Lacerta vivipara	Viviparous Lizard	1.00	1.00	0.00	415000.00	405000.00	green male
Western Moors LWS	SE10	Langsett Moors	22/04/2015 00:00	22/04/2015	reptile	Lacerta vivipara	Viviparous Lizard	1.00	1.00	0.00	415000.00	405000.00	1 on track
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	reptile	Lacerta vivipara	Viviparous Lizard	1.00	1.00	0.00	415000.00	405000.00	In bog near phone mast.
Western Moors LWS	SE10	Wincar Res boat club	23/06/2012 00:00	23/06/2012	reptile	Lacerta vivipara	Viviparous Lizard	1.00	1.00	0.00	415000.00	405000.00	common lizard - on peat moorland; recorder: Richard White.
Western Moors LWS	SE10	Trans Pennine Trail, east of Salter's Broc	20/08/2015 00:00	20/08/2015	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	415000.00	405000.00	1 insect
Western Moors LWS	SE10	Trans Pennine Trail, east of Salter's Broc	20/08/2015 00:00	20/08/2015	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	415000.00	405000.00	1 insect
'BARNSELY MBC'	SE30	Dunford Bridge, Windle Edge picnic site	06/08/2015 00:00	06/08/2015	insect - butterfly	Pieris brassicae	Large White	0.00	0.00	0.00	435000.00	405000.00	2 insects

'BARNSELY MBC'	SE30	Dunford Bridge, Windle Edge picnic site	06/08/2015 00:00	06/08/2015	insect - butterfly	Pieris rapae	Small White	0.00	0.00	0.00	435000.00	405000.00	2 insects
'BARNSELY MBC'	SE30	Dunford Bridge, Windle Edge picnic site	06/08/2015 00:00	06/08/2015	insect - butterfly	Pyronia tithonus	Hedge Brown	0.00	0.00	0.00	435000.00	405000.00	5 insects
'BARNSELY MBC'	SE30	Dunford Bridge, Windle Edge picnic site	30/07/2015 00:00	30/07/2015	insect - butterfly	Thymelicus sylvestris	Small Skipper	0.00	0.00	0.00	435000.00	405000.00	4 insects
'BARNSELY MBC'	SE30	Dunford Bridge, Windle Edge picnic site	30/07/2015 00:00	30/07/2015	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	435000.00	405000.00	1 male
'BARNSELY MBC'	SE30	Dunford Bridge, Windle Edge picnic site	30/07/2015 00:00	30/07/2015	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	435000.00	405000.00	4 insects
'BARNSELY MBC'	SE30	Dunford Bridge, Windle Edge picnic site	30/07/2015 00:00	30/07/2015	insect - butterfly	Aphantopus hyperantus	Ringlet	0.00	0.00	0.00	435000.00	405000.00	7 insects
Western Moors LWS	SE10	Windle Edge picnic site	30/07/2015 00:00	30/07/2015	insect - butterfly	Ochlodes venata	Large Skipper				415000.00	405000.00	1 insect
Western Moors LWS	SE10	Far Swinden	08/07/2015 00:00	08/07/2015	insect - butterfly	Aphantopus hyperantus	Ringlet	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Salters Brook Moss	22/04/2015 00:00	22/04/2015	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	415000.00	405000.00	1
Western Moors LWS	SE10	Salters Brook Moss	22/04/2015 00:00	22/04/2015	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	415000.00	405000.00	1
Western Moors LWS	SE10		22/04/2015 00:00	22/04/2015	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	415000.00	405000.00	several
Western Moors LWS	SE10		22/04/2015 00:00	22/04/2015	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	415000.00	405000.00	several
Western Moors LWS	SE10	Loftshaw Clough	22/04/2015 00:00	22/04/2015	insect - butterfly	Callophrys rubi	Green Hairstreak	0.00	0.00	0.00	415000.00	405000.00	1
Western Moors LWS	SE10	Loftshaw Clough	22/04/2015 00:00	22/04/2015	insect - butterfly	Callophrys rubi	Green Hairstreak	0.00	0.00	0.00	415000.00	405000.00	1
Western Moors LWS	SE10	Thurlstone Moors	22/07/2014 00:00	22/07/2014	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	insect - butterfly	Thymelicus sylvestris	Small Skipper	0.00	0.00	0.00	415000.00	405000.00	Several in bog near phone mast.
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	415000.00	405000.00	Numerous in bog near phone mast.
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	insect - butterfly	Pyronia tithonus	Hedge Brown	0.00	0.00	0.00	415000.00	405000.00	Several in bog near phone mast.
Western Moors LWS	SE10	Badger Lane Brook	22/07/2014 00:00	22/07/2014	insect - butterfly	Polygonia c-album	Comma	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Badger Lane Brook	22/07/2014 00:00	22/07/2014	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Far Swinden	22/07/2014 00:00	22/07/2014	insect - butterfly	Aphantopus hyperantus	Ringlet	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Far Swinden	22/07/2014 00:00	22/07/2014	insect - butterfly	Pyronia tithonus	Hedge Brown	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	insect - butterfly	Pyronia tithonus	Hedge Brown	0.00	0.00	0.00	415000.00	405000.00	Along track near Far Swinden.
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	insect - butterfly	Aphantopus hyperantus	Ringlet	0.00	0.00	0.00	415000.00	405000.00	Along track near Far Swinden.
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	415000.00	405000.00	Along track near Far Swinden.
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	insect - butterfly	Thymelicus sylvestris	Small Skipper	0.00	0.00	0.00	415000.00	405000.00	Along track near Far Swinden.
Western Moors LWS	SE10	Fields at Far Swinden	22/07/2014 00:00	22/07/2014	insect - butterfly	Thymelicus sylvestris	Small Skipper	0.00	0.00	0.00	415000.00	405000.00	In damp corner of field.
Wogden Foot LWS	SE1702	Western section	22/07/2014 00:00	22/07/2014	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Western section	22/07/2014 00:00	22/07/2014	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	417500.00	402500.00	Male.
Upper Don Trail (TPT)	SE2999	Section east of Dunford Bridge	22/07/2014 00:00	22/07/2014	insect - butterfly	Maniola jurtina	Meadow Brown	0.00	0.00	0.00	429500.00	499500.00	
Western Moors LWS	SE10	Dearden Clough	21/05/2014 00:00	21/05/2014	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	415000.00	405000.00	several
Western Moors LWS	SE10	Dearden Clough	30/04/2014 00:00	30/04/2014	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	415000.00	405000.00	6+ on damp rushy ground
Snailsden Moss	SE10	Snailsden	13/03/2014 00:00	13/03/2014	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	415000.00	405000.00	
Black Hill	SE1503	Black Hill Quarry	13/03/2014 00:00	13/03/2014	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	415500.00	403500.00	
Western Moors LWS	SE10	Land adjoining Grains Plantation	13/03/2014 00:00	13/03/2014	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields at Snailsden	13/03/2014 00:00	13/03/2014	insect - butterfly	Polygonia c-album	Comma	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Tyas Quarry	12/03/2014 00:00	12/03/2014	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	415000.00	405000.00	
'BARNSELY MBC'	SE30	Cabin Hill	08/08/2013 00:00	08/08/2013	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	435000.00	405000.00	Odd ones.
'BARNSELY MBC'	SE30	Cabin Hill	08/08/2013 00:00	08/08/2013	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	435000.00	405000.00	Odd ones seen in area.
'BARNSELY MBC'	SE30	Fox Clough	08/08/2013 00:00	08/08/2013	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	435000.00	405000.00	Est. 50+ in area. Large, Small & GVW seen.
'BARNSELY MBC'	SE30	Fox Clough	08/08/2013 00:00	08/08/2013	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	435000.00	405000.00	Odd ones seen. (Heather Flower, Bilberry. R'gh grasses, Bracken.)
'BARNSELY MBC'	SE30	Fox Clough	08/08/2013 00:00	08/08/2013	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	435000.00	405000.00	Est. 300+ on S. edge Fox Clough over 1Km
'BARNSELY MBC'	SE30	Milton Lodge	08/08/2013 00:00	08/08/2013	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	435000.00	405000.00	20/22°C. (Barmings)
'BARNSELY MBC'	SE30	Milton Lodge	08/08/2013 00:00	08/08/2013	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	435000.00	405000.00	Odd ones.
'BARNSELY MBC'	SE30	Milton Lodge	08/08/2013 00:00	08/08/2013	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	435000.00	405000.00	1 seen.
'BARNSELY MBC'	SE30	Milton Lodge	08/08/2013 00:00	08/08/2013	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	435000.00	405000.00	Large, Small & GVW seen.
Dunford Bridge	SE1602	TPT	06/07/2013 00:00	06/07/2013	insect - butterfly	Ochlodes venata	Large Skipper				416500.00	402500.00	
Dunford Bridge	SE1602	TPT	06/07/2013 00:00	06/07/2013	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	416500.00	402500.00	
Dunford Bridge	SE1602	TPT	06/07/2013 00:00	06/07/2013	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	416500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	insect - butterfly	Pieris rapae	Small White	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	insect - butterfly	Lycaena phlaeas	Small Copper	0.00	0.00	0.00	417500.00	402500.00	
Wincsar Reservoir	SE1503		27/05/2013 00:00	27/05/2013	insect - butterfly	Callophrys rubi	Green Hairstreak	0.00	0.00	0.00	415500.00	403500.00	
Hade Edge	SE1405	Linshaws Lane	26/05/2013 00:00	26/05/2013	insect - butterfly	Callophrys rubi	Green Hairstreak	0.00	0.00	0.00	414500.00	405500.00	
'BARNSELY MBC'	SE30	Wincsar Res	02/08/2012 00:00	02/08/2012	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	435000.00	405000.00	breezy 16°C.
'BARNSELY MBC'	SE30	Wincsar Res	02/08/2012 00:00	02/08/2012	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	435000.00	405000.00	breezy 16°C.
'BARNSELY MBC'	SE30	Wincsar Res	02/08/2012 00:00	02/08/2012	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	435000.00	405000.00	male M in grass with Orchids, breezy 16°C
Crow Edge Spoil Heap	SE1804	Crow Edge Tip	30/05/2012 00:00	30/05/2012	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	418500.00	404500.00	
Crow Edge Spoil Heap	SE1804	Crow Edge Tip	30/05/2012 00:00	30/05/2012	insect - butterfly	Pieris rapae	Small White	0.00	0.00	0.00	418500.00	404500.00	
'BARNSELY MBC'	SE30	Swinden Plantation	25/05/2012 00:00	25/05/2012	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	435000.00	405000.00	several
'BARNSELY MBC'	SE30	Swinden Plantation	25/05/2012 00:00	25/05/2012	insect - butterfly	Parage aegeria	Speckled Wood	0.00	0.00	0.00	435000.00	405000.00	several
Western Moors LWS	SE10	Upper Windledon	12/05/2012 00:00	12/05/2012	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	415000.00	405000.00	1
Western Moors LWS	SE10	Woodland Clough	12/05/2012 00:00	12/05/2012	insect - butterfly	Callophrys rubi	Green Hairstreak	0.00	0.00	0.00	415000.00	405000.00	3 in flight
'BARNSELY MBC'	SE30	Woodhead Tunnel	01/03/2012 00:00	01/03/2012	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	435000.00	405000.00	Sorby Mammals meet. 10°C, sunny
Wogden Foot LWS	SE1702	Wogden Foot BLWS	16/10/2011 00:00	16/10/2011	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	417500.00	402500.00	1
Wincsar Reservoir	SE1503		16/10/2011 00:00	16/10/2011	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	415500.00	403500.00	1
Langsett Moors (master site)	SK19	Langsett Moors	16/10/2011 00:00	16/10/2011	insect - butterfly	Vanessa atalanta	Red Admiral	0.00	0.00	0.00	415000.00	395000.00	
Langsett Moors (master site)	SK19	Langsett Moors	01/05/2011 00:00	01/05/2011	insect - butterfly	Callophrys rubi	Green Hairstreak	0.00	0.00	0.00	415000.00	395000.00	
Western Moors LWS	SE10	Ellerslie Lodge	01/05/2011 00:00	01/05/2011	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	415000.00	405000.00	
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Erynnis tages	Dingy Skipper	1.00	0.00	0.00	435000.00	405000.00	2 seen
Western Moors LWS	SE10	Trans Pennine Trail, east of Salter's Broc</											

Western Moors LWS	SE10	Thurlstone Moors	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Thurlstone Moors	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields at Rolly Holme	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields at Rolly Holme	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Far Swinden	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	
Wogden Foot LWS	SE1702	Western section	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Middle section	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Eastern section	22/07/2014 00:00	22/07/2014	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	417500.00	402500.00	
'BARNSELY MBC'	SE30	Cabin Hill	08/08/2013 00:00	08/08/2013	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	435000.00	405000.00	Several well scattered in area. 20/22°C
Winscar Reservoir	SE1503		20/06/2009 00:00	20/06/2009	insect - butterfly	Aglais urticae	Small Tortoiseshell	0.00	0.00	0.00	415500.00	403500.00	1 seen
Winscar Reservoir	SE1503		20/06/2009 00:00	20/06/2009	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	415500.00	403500.00	4 seen
Winscar Reservoir	SE1503		20/06/2009 00:00	20/06/2009	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	415500.00	403500.00	2 seen
'BARNSELY MBC'	SE30	Dunford Bridge	20/06/2009 00:00	20/06/2009	insect - butterfly	Cynthia cardui	Painted Lady	0.00	0.00	0.00	435000.00	405000.00	2 seen
Western Moors LWS	SE10	Snalsden Moor	06/07/2013 00:00	06/07/2013	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	417500.00	402500.00	
'BARNSELY MBC'	SE30	Snalsden Moss	02/08/2012 00:00	02/08/2012	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	435000.00	405000.00	in heather
Western Moors LWS	SE10	Salter's Brook Moss	04/07/2011 00:00	04/07/2011	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	415000.00	405000.00	
'BARNSELY MBC'	SE30	Harden RES near Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	435000.00	405000.00	5 seen
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	435000.00	405000.00	3 seen
'BARNSELY MBC'	SE30	Langsett	17/06/2006 00:00	17/06/2006	insect - butterfly	Coenonympha pamphilus	Small Heath	1.00	0.00	0.00	435000.00	405000.00	2 seen
Dunford Bridge	SE1602		11/05/2009 00:00	11/05/2009	insect - butterfly	Calophrys rubi	Green Hairstreak	0.00	0.00	0.00	416500.00	402500.00	count of 11
Wogden Foot LWS	SE1702	Wogden Foot	04/07/2008 00:00	04/07/2008	insect - butterfly	Gonepteryx rhamni	Brimstone	0.00	0.00	0.00	417500.00	402500.00	1 flying around at Wogden Foot
'BARNSELY MBC'	SE30	Harden RES near Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	435000.00	405000.00	1 seen
'BARNSELY MBC'	SE30	Harden RES near Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Cynthia cardui	Painted Lady	0.00	0.00	0.00	435000.00	405000.00	3 seen
'BARNSELY MBC'	SE30	Harden RES near Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Calophrys rubi	Green Hairstreak	0.00	0.00	0.00	435000.00	405000.00	5 seen
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Cynthia cardui	Painted Lady	0.00	0.00	0.00	435000.00	405000.00	3 seen
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Inachis io	Peacock	0.00	0.00	0.00	435000.00	405000.00	2 seen
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Vanessa atalanta	Red Admiral	0.00	0.00	0.00	435000.00	405000.00	1 seen
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Calophrys rubi	Green Hairstreak	0.00	0.00	0.00	435000.00	405000.00	1 seen
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Pararge aegeria	Speckled Wood	0.00	0.00	0.00	435000.00	405000.00	1 seen
'BARNSELY MBC'	SE30	Dunford Bridge	09/06/2007 00:00	09/06/2007	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	435000.00	405000.00	1 seen
Wogden Foot LWS	SE1702	Wogden Foot BLWS	01/01/2007 00:00	01/01/2007	insect - butterfly	Polyommatus icarus	Common Blue	0.00	0.00	0.00	417500.00	402500.00	reported by locals
'BARNSELY MBC'	SE30	Langsett	17/06/2006 00:00	17/06/2006	insect - butterfly	Pieris napi	Green-Veined White	0.00	0.00	0.00	435000.00	405000.00	6 seen
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	crustacean	Oniscus asellus	Oniscus asellus	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	crustacean	Philoscia muscorum	Philoscia muscorum	0.00	0.00	0.00	417500.00	402500.00	
Western Moors LWS	SE10	Langsett	14/04/2012 00:00	14/04/2012	crustacean	Trichoniscus pusillus	Trichoniscus pusillus	0.00	0.00	0.00	415000.00	405000.00	
Western Moors LWS	SE10	Langsett	14/04/2012 00:00	14/04/2012	crustacean	Oniscus asellus	Oniscus asellus	0.00	0.00	0.00	415000.00	405000.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	14/04/2012 00:00	14/04/2012	crustacean	Oniscus asellus	Oniscus asellus	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	14/04/2012 00:00	14/04/2012	crustacean	Trichoniscus pusillus	Trichoniscus pusillus	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	14/04/2012 00:00	14/04/2012	crustacean	Trichoniscus pygmaeus	Trichoniscus pygmaeus	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	14/04/2012 00:00	14/04/2012	crustacean	Androniscus dentiger	Androniscus dentiger	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot BLWS	14/04/2012 00:00	14/04/2012	crustacean	Haplophthalmus mengei	Haplophthalmus men	0.00	0.00	0.00	417500.00	402500.00	
'BARNSELY MBC'	SE30	Penistone Road, Law	06/05/2005 00:00	06/05/2005	crustacean	Crangonyx pseudogracilis	Crangonyx pseudogra	0.00	0.00	0.00	435000.00	405000.00	
Long Moor Clough, Langset	SE10		26/04/2009 00:00	26/04/2009	bird	Cuculus canorus	Common Cuckoo	1.00	0.00	1.00	415000.00	405000.00	heard nearby%0A
Winscar Reservoir	SE1503		18/05/2014 00:00	18/05/2014	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	415500.00	403500.00	Heard it calling, while I was in the car park, from a small copse of trees on the other side of the Reservoir BTO Habitat Code: A2.4.19: Heard, not seen in plantation.
Western Moors LWS	SE10	Swinden Plantation	25/05/2012 00:00	25/05/2012	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	near Snalsden Reservoir	12/05/2012 00:00	12/05/2012	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	415000.00	405000.00	calling
Langsett Moors	SK19	Langsett	01/05/2011 00:00	01/05/2011	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	415000.00	395000.00	singing males
Western Moors LWS	SE10	Langsett Woods	08/07/2015 00:00	08/07/2015	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Langsett Woods	08/07/2015 00:00	08/07/2015	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	415000.00	405000.00	In canopy of plantation near Far Swinden.
Western Moors LWS	SE10	Langsett Woods	08/07/2015 00:00	08/07/2015	bird	Loxia curvirostra	Crossbill	0.00	0.00	0.00	415000.00	405000.00	In canopy of plantation near Far Swinden.
Western Moors LWS	SE10	Badger Lane	08/07/2015 00:00	08/07/2015	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	On edge of plantation.
'BARNSELY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
Winscar Reservoir	SE10L	Winscar Reservoir 2	24/05/2009 00:00	24/05/2009	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	415000.00	403000.00	Between: 14:50-19:00.
Western Moors LWS	SE10	Bance Edge Plantation	15/06/2008 00:00	15/06/2008	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	415000.00	405000.00	singing male
Western Moors LWS	SE10	Lady Shaw	22/04/2015 00:00	22/04/2015	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	405000.00	1 on moor
Western Moors LWS	SE10	Thurlstone Moors	22/04/2015 00:00	22/04/2015	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	fairly common
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Cuculus canorus	Cuckoo	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Windledon Edge	22/04/2015 00:00	22/04/2015	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	mobbing Buzzard in flight
Western Moors LWS	SE10	Stone Rucks Moss	22/04/2015 00:00	22/04/2015	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	several
Western Moors LWS	SE10	Thurlstone Moors	22/04/2015 00:00	22/04/2015	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	2 put up from nests
Western Moors LWS	SE10	Cabin Hill	22/04/2015 00:00	22/04/2015	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	calling in flight
Western Moors LWS	SE10	Lady Shaw	22/04/2015 00:00	22/04/2015	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	405000.00	singing and displaying over grass moorland
Western Moors LWS	SE10	Langsett Moor	22/04/2015 00:00	22/04/2015	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	405000.00	singing and displaying over grass moorland
Dunford Bridge	SE1602	Clough Beck	11/04/2015 00:00	11/04/2015	bird	Motacilla cinerea	Grey Wagtail	0.00	0.00	1.00	416500.00	402500.00	
Western Moors LWS	SE10	Thurlstone Moors	22/04/2015 00:00	22/04/2015	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	pair on territory
Wogden Foot LWS	SE1702	Wogden Foot	11/04/2015 00:00	11/04/2015	bird	Lagopus lagopus subsp. scot	Lagopus lagopus subsp. scotica	1.00	0.00	1.00	417500.00	402500.00	
Dunford Bridge	SE1602	Clough Beck	11/04/2015 00:00	11/04/2015	bird	Numenius arquata	Curlew	1.00	0.00	1.00	416500.00	402500.00	A pair displaying
Dunford Bridge	SE1602	Trans Pennine Trail	28/06/2014 00:00	28/06/2014	bird	Numenius arquata	Curlew	1.00	0.00	1.00	416500.00	402500.00	overhead calling
Upper Don Valley	SE10	Eltock Farm	24/03/2014 00:00	24/03/2014	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10												

Riddlepit	SE1704	Field to south of buildings	12/03/2014 00:00	12/03/2014	bird	Numenius arquata	Curlew	1.00	0.00	1.00	417500.00	404500.00	
Townhead	SE10	Fields off Brook Hill Lane	10/03/2014 00:00	10/03/2014	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Displaying.
Upper Don Valley	SE10	Eltock Farm	10/03/2014 00:00	10/03/2014	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Approx 10 in fields on north side of River Don.
Western Moors LWS	SE10	Thurlstone Moors	22/07/2014 00:00	22/07/2014	bird	Falco columbarius	Merlin	0.00	1.00	1.00	415000.00	405000.00	Juvenile. Circling low over heather, calling.
'BARNLEY MBC'	SE30	field to north of Wogden Foot	06/07/2013 00:00	06/07/2013	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	several on territory
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes.
Carlecotes	SE10	Flight Hill	14/03/2013 00:00	14/03/2013	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	On edge of moorland.
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Western Moors LWS	SE10	Windleton Edge	12/05/2012 00:00	12/05/2012	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	on territory in field
Thurlstone Moors	SE1601	Thurlstone Moor	21/04/2012 00:00	21/04/2012	bird	Numenius arquata	Curlew	1.00	0.00	1.00	416500.00	401500.00	curlew over unimproved grass
Western Moors LWS	SE10	Tinker Hill	30/03/2012 00:00	30/03/2012	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	curlew flying over Tinker Hill
Wogden Foot LWS	SE1702	Western section	22/07/2014 00:00	22/07/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	417500.00	402500.00	Juveniles.
Western Moors LWS	SE10	Dunford Bridge	30/03/2012 00:00	30/03/2012	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Flying over Tinker Hill
Western Moors LWS	SE10	Swinden Lane	26/03/2012 00:00	26/03/2012	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Calling/vocalizing.
Thurlstone Moors	SE10	Flight Hill	01/03/2012 00:00	01/03/2012	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Back in breeding areas.
Flight Hill	SE1504		03/06/2011 00:00	03/06/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415500.00	404500.00	1 Count
Western Moors LWS	SE10	Harden Edge	28/06/2014 00:00	28/06/2014	bird	Pyrhula pyrrhula	Bullfinch	0.00	0.00	1.00	415000.00	405000.00	flying into conifers
Western Moors LWS	SE10	Windle Edge	28/06/2014 00:00	28/06/2014	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	1 posing on fence post
Western Moors LWS	SE10	Woodlands N side Langsett Reservoir	28/06/2014 00:00	28/06/2014	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	415000.00	405000.00	in conifers
Western Moors LWS	SE10	Winscar Reservoir	27/06/2014 00:00	27/06/2014	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	405000.00	calling at night on territory
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415500.00	403500.00	3 Count
'BARNLEY MBC'	SE30	SE10R-2	23/04/2011 00:00	23/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10S-1	23/04/2011 00:00	23/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
Wogden Foot LWS	SE1702	Middle section	24/03/2014 00:00	24/03/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	417500.00	402500.00	Approx 80 perched in birches.
Winscar Reservoir	SE1503		23/04/2011 00:00	23/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415500.00	403500.00	1 Count
Upper Don Valley	SE10	Eltock Farm	24/03/2014 00:00	24/03/2014	bird	Columba oenas	Stock Dove	0.00	0.00	1.00	415000.00	405000.00	Approx 50 foraging in re-seeded field.
Western Moors LWS	SE10	Broad Hill Bank	24/03/2014 00:00	24/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Moorland north of Harden Edge	24/03/2014 00:00	24/03/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
'BARNLEY MBC'	SE30	SE10V-4	22/04/2011 00:00	22/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding possible
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Harden Edge	24/03/2014 00:00	24/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Moorland north of Harden Edge	24/03/2014 00:00	24/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Moorland north of Harden Edge	24/03/2014 00:00	24/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Tinker Hill	24/03/2014 00:00	24/03/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Flock of approx 30 circling low.
'BARNLEY MBC'	SE30	SE10W-3	22/04/2011 00:00	22/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10Q-1	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Tinker Hill	24/03/2014 00:00	24/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Tinker Hill	24/03/2014 00:00	24/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Fields off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Flight Hill	24/03/2014 00:00	24/03/2014	bird	Turdus iliacus	Redwing	0.00	1.00	1.00	415000.00	405000.00	Approx 20.
Western Moors LWS	SE10	Fields off Flint Lane	24/03/2014 00:00	24/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	In field south of Fox House pub.
Western Moors LWS	SE10	Fields off A628	24/03/2014 00:00	24/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Foraging in field on south-west side of Reddishaw Knoll Plantation.
Western Moors LWS	SE10	Acre Head	24/03/2014 00:00	24/03/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	Foraging in field.
Western Moors LWS	SE10	Low Moor Farm	24/03/2014 00:00	24/03/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 100 foraging in sheep pasture.
'BARNLEY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	
Grains End	SE1302	Grains Plantation	13/03/2014 00:00	13/03/2014	bird	Troglodytes troglodytes	Winter Wren	0.00	0.00	0.00	413500.00	402500.00	Singing in plantation.
Grains End	SE1302	Grains Plantation	13/03/2014 00:00	13/03/2014	bird	Carduelis carduelis	European Goldfinch	0.00	0.00	1.00	413500.00	402500.00	
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
Western Moors LWS	SE10	Land adjoining Grains Plantation	13/03/2014 00:00	13/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Land adjoining Grains Plantation	13/03/2014 00:00	13/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near easternmost corner.
Western Moors LWS	SE10	Fields off Dunford Road	13/03/2014 00:00	13/03/2014	bird	Haematopus ostralegus	Eurasian Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Pair near disused quarry.
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Reddishaw Knoll	13/03/2014 00:00	13/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Black Hill	SE1503	Black Hill Quarry	13/03/2014 00:00	13/03/2014	bird	Columba oenas	Stock Dove	0.00	0.00	1.00	415500.00	403500.00	Flew out of quarry.
Black Hill	SE1503	Black Hill Quarry	13/03/2014 00:00	13/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	403500.00	
Western Moors LWS	SE10	Snailsden	13/03/2014 00:00	13/03/2014	bird	Troglodytes troglodytes	Winter Wren	0.00	0.00	0.00	415000.00	405000.00	Singing in trees to west of lodge.
Western Moors LWS	SE10	Fields at Snailsden	13/03/2014 00:00	13/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Singing.
'BARNLEY MBC'	SE30	SE10W-1	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Low Edge Quarries (Harden)	13/03/2014 00:00	13/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Harden Flat	13/03/2014 00:00	13/03/2014	bird	Carduelis cannabina	Common Linnet	0.00	0.00	1.00	415000.00	405000.00	Singing near Harden Lodge.
Western Moors LWS	SE10	Winscar Reservoir and surrounds	13/03/2014 00:00	13/03/2014	bird	Saxicola torquata	Stonechat	0.00	0.00	1.00	415000.00	405000.00	Male in heather near northernmost tip of reservoir.
Western Moors LWS	SE10	Reddishaw Knoll Plantation	13/03/2014 00:00	13/03/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Low Moor Farm	13/03/2014 00:00	13/03/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing in southernmost plantation.

Western Moors LWS	SE10	Harden Clough	12/03/2014 00:00	12/03/2014	bird	Saxicola torquata	Stonechat	0.00	0.00	1.00	415000.00	405000.00	Pair near track to Snailsden Bridge.
Western Moors LWS	SE10	Tyas Quarry	12/03/2014 00:00	12/03/2014	bird	Carduelis cannabina	Common Linnet	0.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
"BARNLEY MBC"	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
Lower Snailsden Moss	SE1403		12/03/2014 00:00	12/03/2014	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	414500.00	403500.00	Heard calling but not seen.
"BARNLEY MBC"	SE30	SE10W-3	20/04/2011 00:00	20/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Harden Clough, Snailsden	SE10		10/04/2011 00:00	10/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	2 Count
Winscar Reservoir	SE1503		10/04/2011 00:00	10/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415500.00	403500.00	2 Count
Western Moors LWS	SE10	Low Edge Quarries (Harden)	12/03/2014 00:00	12/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields off Dunford Road	12/03/2014 00:00	12/03/2014	bird	Haematopus ostralegus	Eurasian Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Pair near disused quarry.
Western Moors LWS	SE10	Tinker Hill	12/03/2014 00:00	12/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	South of Cocker Edge.
Western Moors LWS	SE10	Moorland off Brook Hill Lane	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Tinker Hill	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	South of Cocker Edge. Singing.
Harden Clough, Snailsden	SE10		02/04/2011 00:00	02/04/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	2 Count
Western Moors LWS	SE10	Crowbrook Grain	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Flight Hill	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Flight Hill	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Crowbrook Grain	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Tinker Hill	12/03/2014 00:00	12/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Crowbrook Grain.
Western Moors LWS	SE10	Moorland near Finkle Edge	12/03/2014 00:00	12/03/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Singing.
Harden Clough, Snailsden	SE10		26/03/2011 00:00	26/03/2011	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	3 Count
Western Moors LWS	SE10	Moorland near Carlecotes	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Moorland near Carlecotes	12/03/2014 00:00	12/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Victoria	SE1604		27/06/2009 00:00	27/06/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	416500.00	404500.00	feeding in fields
Western Moors LWS	SE10	Tinker Hill	25/06/2009 00:00	25/06/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	
Snittlegate	SE1504		30/05/2009 00:00	30/05/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415500.00	404500.00	Between: 17:20-18:20.
Harden Clough, Snailsden	SE10	Harden Clough	28/05/2009 00:00	28/05/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Between: 14:20-16:20.
Western Moors LWS	SE10	Harden Reservoir	10/03/2014 00:00	10/03/2014	bird	Haematopus ostralegus	Eurasian Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Standing on top of dam wall.
Western Moors LWS	SE10	Broad Hill Bank	10/03/2014 00:00	10/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	In edge of plantation.
Western Moors LWS	SE10	Verge of Dunford Road	10/03/2014 00:00	10/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	In cutting on east side of road.
Western Moors LWS	SE10	Fields off Brook Hill Lane	10/03/2014 00:00	10/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Tinker Hill, East of Harden	SE10	Tinker Hill	24/05/2009 00:00	24/05/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Between: 06:00-06:00.
Hade Edge	SE1405		21/05/2009 00:00	21/05/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	414500.00	405500.00	Between: 14:00-14:40.
Harden Clough, Snailsden	SE10	Harden Clough	11/05/2009 00:00	11/05/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Between: 15:20-16:00.
Western Moors LWS	SE10	Fields at Rolly Holme	10/03/2014 00:00	10/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing over southern edge of field.
Harden Clough, Snailsden	SE10	Harden Clough	07/05/2009 00:00	07/05/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Between: 15:40-16:20.
Harden Clough, Snailsden	SE10	Harden Clough	30/04/2009 00:00	30/04/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Between: 14:30-15:49.
Flight Hill	SE1504		23/04/2009 00:00	23/04/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415500.00	404500.00	Between: 14:40-16:20.
Upper Don Trail (TPT)	SE2999	Section east of Cote Bank Bridge	10/03/2014 00:00	10/03/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	429500.00	499500.00	Singing.
Upper Don Valley	SE10		10/03/2014 00:00	10/03/2014	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	Male in disused quarry to north of TPT.
Winscar Reservoir	SE10L	Winscar	23/04/2009 00:00	23/04/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	403000.00	Between: 11:00-11:00.
Flight Hill	SE1504		22/04/2009 00:00	22/04/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415500.00	404500.00	Between: 10:00-10:00.
Winscar Reservoir	SE10L	Winscar Reservoir 2	11/04/2009 00:00	11/04/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	403000.00	Between: 16:00-17:00.
Upper Don Trail (TPT)	SE2999	Section east of Dunford Bridge	06/03/2014 00:00	06/03/2014	bird	Poecile montanus	Willow Tit	0.00	0.00	1.00	429500.00	499500.00	In birch scrub.
Western Moors LWS	SE10	Low Edge Quarries (Harden)	06/03/2014 00:00	06/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Low Edge Quarries (Harden)	06/03/2014 00:00	06/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Harden Clough, Snailsden	SE10	Harden Clough	02/04/2009 00:00	02/04/2009	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	Between: 15:30-16:00.
Western Moors LWS	SE10	Harden Reservoir	06/03/2014 00:00	06/03/2014	bird	Haematopus ostralegus	Eurasian Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Circling near dam wall.
Western Moors LWS	SE10	Winscar Reservoir	06/03/2014 00:00	06/03/2014	bird	Haematopus ostralegus	Eurasian Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	On eastern bank near car park.
Western Moors LWS	SE10	Lower Windleden Reservoir	06/03/2014 00:00	06/03/2014	bird	Haematopus ostralegus	Eurasian Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Two pairs flushed from western shore of reservoir.
Western Moors LWS	SE10	Bance Edge Plantation	15/06/2008 00:00	15/06/2008	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	singing males
Western Moors LWS	SE10	Fields at Rolly Holme	06/03/2014 00:00	06/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Dog & Partridge	04/05/2008 00:00	04/05/2008	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	singing
Western Moors LWS	SE10	Reddishaw Knoll	06/03/2014 00:00	06/03/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Winscar Reservoir	SE10L	Winscar Reservoir	10/06/2007 00:00	10/06/2007	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	403000.00	
Western Moors LWS	SE10	Reddishaw Knoll Plantation	06/03/2014 00:00	06/03/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	405000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	20/05/2007 00:00	20/05/2007	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	403000.00	
Western Moors LWS	SE10	South side of Old Manchester Road	06/03/2014 00:00	06/03/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	South side of Old Manchester Road	06/03/2014 00:00	06/03/2014	bird	Regulus regulus	Goldcrest	0.00	0.00	1.00	415000.00	405000.00	Singing in conifers.
Flouch	SE1901	Fields off Old Manchester Road	04/03/2014 00:00	04/03/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	419500.00	401500.00	Approx 20 foraging in grassland.
Flouch	SE1901	Fields off Old Manchester Road	04/03/2014 00:00	04/03/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	419500.00	401500.00	Approx 80 foraging in grassland.
Western Moors LWS	SE10	Thurlstone Moors	04/03/2014 00:00	04/03/2014	bird	Falco peregrinus	Peregrine Falcon	0.00	1.00	1.00	415000.00	405000.00	Flying north-west over Bord Hill.
Langsett Moors	SK19	Langsett	01/05/2007 00:00	01/05/2007	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	395000.00	singing Dog & Partridge
Winscar Reservoir	SE10L	Winscar Reservoir	15/04/2007 00:00	15/04/2007	bird	Numenius arquata	Curlew	1.00	0.00	1.00	415000.00	403000.00	
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 180 in trees by Milton Lodge.
farmland west of Flouch In	SE1901	The Flouch	14/03/2007 00:00	14/03/2007	bird	Numenius arquata	Curlew	1.00	0.00	1.00	419500.00	401500.00	
Whitley Edge LWS	SE1804	Whitley Edge 2	01/01/2005 00:00	01/01/2005	bird	Numenius arquata	Curlew	1.00	0.00	1.00	418500.00	404500.00	breeding
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Tinker Hill	24/03/2014 00:00	24/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	Displaying to south of Cocker Edge.
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	In field east of Park Gate Farm.
Western Moors LWS	SE10	Langsett Woods	04/03/2014 00:00	04/03/2014	bird	Loxia curvirostra	Common Crossbill	0.00	0.00	0.00	415000.00	405000.00	One male, two females. In birch tree next to pond.
Western Moors LWS	SE10	Acre Head	04/03/2014 00:00	04/03/2014	bird	Turdus philomelos							

Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Males displaying on edge of field to south of track.
Western Moors LWS	SE10	Swinden Lane (track)	01/03/2014 00:00	01/03/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
Carlecotes	SE10	Topping Moor	12/03/2014 00:00	12/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	In field with large pond.
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	Approx 40 in field to north of track.
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Male displaying in field to south of track.
Western Moors LWS	SE10	Tinker Hill	12/03/2014 00:00	12/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	South of Cocker Edge.
Western Moors LWS	SE10	Fields at Rolly Holme	10/03/2014 00:00	10/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	Foraging in westernmost field.
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Accipiter nisus	Eurasian Sparrowhawk	0.00	0.00	0.00	415000.00	405000.00	Flying low over field to south of track.
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Flushed from field to south of track by sparrowhawk.
Western Moors LWS	SE10	Fields at Rolly Holme	10/03/2014 00:00	10/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	Performing display flight over field.
Western Moors LWS	SE10	Acre Head	01/03/2014 00:00	01/03/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing in garden.
Western Moors LWS	SE10	Fields at Far Swinden	01/03/2014 00:00	01/03/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Foraging in field near edge of plantation.
Western Moors LWS	SE10	Far Swinden	01/03/2014 00:00	01/03/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Far Swinden	01/03/2014 00:00	01/03/2014	bird	Pyrrhula pyrrhula	Common Bullfinch	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	South side of Old Manchester Road	01/03/2014 00:00	01/03/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	South side of Old Manchester Road	01/03/2014 00:00	01/03/2014	bird	Pyrrhula pyrrhula	Common Bullfinch	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Langsett Woods	01/03/2014 00:00	01/03/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing in edge of plantation near Badger Lane.
Western Moors LWS	SE10	South side of Old Manchester Road	01/03/2014 00:00	01/03/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	Approx 50 flew from conifers near Swinden Walls.
Western Moors LWS	SE10	Lower Windleden Reservoir	06/03/2014 00:00	06/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	Circling low over grassland to east of reservoir.
Western Moors LWS	SE10	Fields at Rolly Holme	06/03/2014 00:00	06/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Low Moor Farm	06/03/2014 00:00	06/03/2014	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	Flushed by farm vehicle.
Thurlstone Moors	SE10	Langsett	28/04/2010 00:00	28/04/2010	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	415000.00	405000.00	2 or 3 birds flying and calling above moors.
Swinden Lane, Langsett Mo	SE10V		21/04/2010 00:00	21/04/2010	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	419000.00	401000.00	Heard in area %0A
Western Moors LWS	SE10	Low Moor Farm	26/02/2014 00:00	26/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 60.
Dunford Bridge	SE1602	Car park for Upper Don Trail (TPT)	26/02/2014 00:00	26/02/2014	bird	Pyrrhula pyrrhula	Bullfinch	0.00	0.00	1.00	416500.00	402500.00	Male. Dead near bus shelter.
Western Moors LWS	SE10	Windleden Farm	26/02/2014 00:00	26/02/2014	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 200 foraging in grassland near disused quarry.
Western Moors LWS	SE10	South View Farm	26/02/2014 00:00	26/02/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Windleden Clough	26/02/2014 00:00	26/02/2014	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	Flushed by low flying raven.
Swinden Lane, Langsett Mo	SE10V		12/06/2009 00:00	12/06/2009	bird	Numenius arquata	Eurasian Curlew	1.00	0.00	1.00	419000.00	401000.00	At least 2 pairs in area %0A
Western Moors LWS	SE10	Wincscar Reservoir and surrounds	26/02/2014 00:00	26/02/2014	bird	Saxicola torquata	Stonechat	0.00	0.00	1.00	415000.00	405000.00	Female in heather on steep bank below dam wall.
Western Moors LWS	SE10	Wincscar Reservoir and surrounds	26/02/2014 00:00	26/02/2014	bird	Haematopus ostralegus	Eurasian Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Near duck-feeding area on eastern bank of reservoir.
Western Moors LWS	SE10	Broad Hill Bank	26/02/2014 00:00	26/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Dunford Bridge	SE1602	Windle Edge	25/02/2014 00:00	25/02/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	416500.00	402500.00	Singing near farm buildings.
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Perdix perdix	Grey Partridge	1.00	0.00	1.00	415000.00	405000.00	Flushed from roadside verge then flew into moorland.
Western Moors LWS	SE10	Windleden Farm	25/02/2014 00:00	25/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 200 foraging in field near Goddard Lane.
Western Moors LWS	SE10	Tyas Quarry	12/03/2014 00:00	12/03/2014	bird	Perdix perdix	Grey Partridge	1.00	0.00	1.00	415000.00	405000.00	Flushed from base of quarry.
Western Moors LWS	SE10	Thurlstone Moors	25/02/2014 00:00	25/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	25/02/2014 00:00	25/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	25/02/2014 00:00	25/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Pair in area of burnt and regenerating heather.
Western Moors LWS	SE10	Thurlstone Moors	25/02/2014 00:00	25/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Pair in area of burnt and regenerating heather.
Western Moors LWS	SE10	Thurlstone Moors	25/02/2014 00:00	25/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Townhead	SE10	Tyas Quarry	14/03/2013 00:00	14/03/2013	bird	Perdix perdix	Grey Partridge	1.00	0.00	1.00	415000.00	405000.00	Flushed from edge of disused quarry.
Crow Edge	SE1804	Banks' site	02/02/2012 00:00	02/02/2012	bird	Perdix perdix	Grey Partridge	1.00	0.00	1.00	418500.00	404500.00	partridge sp., 3 No. - in dense grass
Western Moors LWS	SE10	Ellerslie Lodge (Bordhill Lodge)	25/02/2014 00:00	25/02/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Ellerslie Lodge (Bordhill Lodge)	25/02/2014 00:00	25/02/2014	bird	Carduelis carduelis	European Goldfinch	0.00	0.00	1.00	415000.00	405000.00	Singing in smallholding.
Western Moors LWS	SE10	Ellerslie Lodge (Bordhill Lodge)	25/02/2014 00:00	25/02/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	Approx 50 in trees around buildings.
Western Moors LWS	SE10	Acre Head	25/02/2014 00:00	25/02/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	In garden.
Western Moors LWS	SE10	South side of Old Manchester Road	25/02/2014 00:00	25/02/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing near Swinden Walls.
Western Moors LWS	SE10	Acre Head	04/02/2014 00:00	04/02/2014	bird	Passer domesticus	House Sparrow	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Acre Head	21/01/2014 00:00	21/01/2014	bird	Passer domesticus	House Sparrow	1.00	0.00	1.00	415000.00	405000.00	In hedge near house.
Western Moors LWS	SE10	Langsett Woods	25/02/2014 00:00	25/02/2014	bird	Troglodytes troglodytes	Winter Wren	0.00	0.00	0.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Langsett Woods	25/02/2014 00:00	25/02/2014	bird	Regulus regulus	Goldcrest	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Fields at Far Swinden	25/02/2014 00:00	25/02/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	
Crow Edge	SE1804		06/07/2013 00:00	06/07/2013	bird	Passer domesticus	House Sparrow	1.00	0.00	1.00	418500.00	404500.00	
Carlecotes	SE10	Gardens in Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Passer domesticus	House Sparrow	1.00	0.00	1.00	415000.00	405000.00	At least 2.
Flouch	SE1901	Fields to west of Whams Road (A616)	22/02/2014 00:00	22/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture.
Western Moors LWS	SE10	Bord Hill Flat	22/02/2014 00:00	22/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Cat Clough Hill	22/02/2014 00:00	22/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Cat Clough Head	22/02/2014 00:00	22/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Two flocks circling and dropping down. Approx 80 birds in total.
Western Moors LWS	SE10	Cat Clough Head	22/02/2014 00:00	22/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Three flocks flying west. Approx 250 birds in total.
Carlecotes	SE10	Gardens in Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Passer domesticus	House Sparrow	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Cat Clough	22/02/2014 00:00	22/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Cat Clough Head	22/02/2014 00:00	22/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Circling overhead.

Townhead	SE10	Gardens in village	14/03/2013 00:00	14/03/2013	bird	Passer domesticus	House Sparrow	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Reddishaw Knoll Plantation	22/02/2014 00:00	22/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Acre Head	22/02/2014 00:00	22/02/2014	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	In field next to new barn.
'BARNSELY MBC'	SE30	SE10W-3	22/04/2011 00:00	22/04/2011	bird	Passer domesticus	House Sparrow	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Thurlstone Moors	21/02/2014 00:00	21/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	21/02/2014 00:00	21/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	In Wogden Clough.
Western Moors LWS	SE10	Thurlstone Moors	21/02/2014 00:00	21/02/2014	bird	Scolopax rusticola	Eurasian Woodcock	0.00	0.00	1.00	415000.00	405000.00	Flushed from Wogden Clough.
Western Moors LWS	SE10	Thurlstone Moors	21/02/2014 00:00	21/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Upper Windledon Reservoir	22/04/2015 00:00	22/04/2015	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	2 displaying over reservoir
Western Moors LWS	SE10	Thurlstone Moors	21/02/2014 00:00	21/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	field nr Dog and Partridge	27/06/2014 00:00	27/06/2014	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	calling at night on territory
Western Moors LWS	SE10	Cat Clough Hill	21/02/2014 00:00	21/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	
Flouch	SE1901	Fields to west of Whams Road (A616)	24/03/2014 00:00	24/03/2014	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	419500.00	401500.00	
Riddlipit	SE1704	Field to south of buildings	12/03/2014 00:00	12/03/2014	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	417500.00	404500.00	
Western Moors LWS	SE10	Fields off Swinden Lane	21/02/2014 00:00	21/02/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields off Swinden Lane	21/02/2014 00:00	21/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Langsett Woods	21/02/2014 00:00	21/02/2014	bird	Accipiter nisus	Eurasian Sparrowhawk	0.00	0.00	0.00	415000.00	405000.00	Hunting in clear-felled and replanted area.
Western Moors LWS	SE10	Windleden Farm	18/02/2014 00:00	18/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 800 foraging in field near farm buildings.
Townhead	SE10	Fields off Brook Hill Lane	10/03/2014 00:00	10/03/2014	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Displaying.
Western Moors LWS	SE10	Lower Windleden Reservoir	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	On hillside near eastern bank.
Western Moors LWS	SE10	Thurlstone Moors	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	18/02/2014 00:00	18/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing on pylon.
Western Moors LWS	SE10	Thurlstone Moors	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Fields between A628 and Fox Clough	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields between A628 and Fox Clough	18/02/2014 00:00	18/02/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Singing.
Upper Don Valley	SE10	Eltock Farm	10/03/2014 00:00	10/03/2014	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In fields on north side of River Don.
Crow Edge	SE1804		06/07/2013 00:00	06/07/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	418500.00	404500.00	
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Approx 20 in sheep pasture with rushes.
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes.
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	In field to west of Milton Lodge.
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 150 in field to west of Milton Lodge.
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes.
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 50 in field to east of Milton Lodge.
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes.
Thurlstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Flock of approx 60 circling over Low Moor. Eventually dropped down into fields near A616.
Thurlstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture with near Low Moor Farm.
Western Moors LWS	SE10	Park Gate Farm	18/02/2014 00:00	18/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 150 in trees to south-west of farm buildings.
Western Moors LWS	SE10	Woodland Clough	18/02/2014 00:00	18/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Thurlstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes near Low Moor Farm.
Thurlstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes near Low Moor Farm.
Thurlstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture near Low Moor Farm.
Carlecotes	SE10	Fields to south of Bents Road (B6106)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture to west of bridleway from Acre Head.
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture to west of bridleway from Acre Head.
Western Moors LWS	SE10	Thurlstone Moors	16/02/2014 00:00	16/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	16/02/2014 00:00	16/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Reddishaw Knoll Plantation	16/02/2014 00:00	16/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing in larch near northern tip of plantation.
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture to east of bridleway from Acre Head.
Western Moors LWS	SE10	Low Moor Farm	16/02/2014 00:00	16/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 100 foraging in sheep pasture.
Western Moors LWS	SE10	South side of Old Manchester Road	16/02/2014 00:00	16/02/2014	bird	Pyrrhula pyrrhula	Common Bullfinch	0.00	0.00	1.00	415000.00	405000.00	In hawthorns.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed from edge of moorland near South Nab.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flying north-west.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Pair in area of burnt and regenerating heather.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Wogden Head.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).

Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Approx 20 flushed from heather.
Western Moors LWS	SE10	Thurlstone Moors	10/02/2014 00:00	10/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture to east of bridleway.
Flouch	SE1901	Bridleway from Acre Head to Cote Bank	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture to east of bridleway.
Western Moors LWS	SE10	South side of Old Manchester Road	10/02/2014 00:00	10/02/2014	bird	Aegithalos caudatus	Long-tailed Tit	0.00	0.00	0.00	415000.00	405000.00	In hawthorns.
Western Moors LWS	SE10	South side of Old Manchester Road	10/02/2014 00:00	10/02/2014	bird	Pyrhula pyrrhula	Common Bullfinch	0.00	0.00	1.00	415000.00	405000.00	Pair in hawthorns.
Western Moors LWS	SE10	South side of Old Manchester Road	10/02/2014 00:00	10/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	
Bents Common	SE10	Fields to north of Bents Road (B6106)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In improved grassland.
Bents Common	SE10	Fields to north of Bents Road (B6106)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In unimproved pasture.
Bents Common	SE10	Fields to north of Bents Road (B6106)	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Western Moors LWS	SE10	Cat Clough Head	07/02/2014 00:00	07/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed from wet area.
Western Moors LWS	SE10	Reddishaw Knoll Plantation	07/02/2014 00:00	07/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Acre Head	07/02/2014 00:00	07/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Far Swinden	07/02/2014 00:00	07/02/2014	bird	Regulus regulus	Goldcrest	0.00	0.00	1.00	415000.00	405000.00	In edge of plantation.
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Townhead	SE10	Fields on north side of River Don	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In unimproved pasture.
Fox Clough	SE1800	Northern end of Hordron Road	06/02/2014 00:00	06/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	418500.00	405000.00	Singing in woodland to east of stream.
Western Moors LWS	SE10	Thurlstone Moors	06/02/2014 00:00	06/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	06/02/2014 00:00	06/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near western end of Snow Road (track).
Western Moors LWS	SE10	Thurlstone Moors	06/02/2014 00:00	06/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Thurlstone Moors	06/02/2014 00:00	06/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Thurlstone Moors	06/02/2014 00:00	06/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Western Moors LWS	SE10	Thurlstone Moors	06/02/2014 00:00	06/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Snow Road (track).
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Western Moors LWS	SE10	Ellerslie Lodge (Bordhill Lodge)	06/02/2014 00:00	06/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing in trees to south of lodge.
Western Moors LWS	SE10	Fields off Swinden Lane	06/02/2014 00:00	06/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing on overhead cables.
Western Moors LWS	SE10	Fields off Swinden Lane	06/02/2014 00:00	06/02/2014	bird	Prunella modularis	Hedge Accentor	0.00	0.00	1.00	415000.00	405000.00	Singing in shelter belt near Swinden Lodge.
Western Moors LWS	SE10	Far Swinden	06/02/2014 00:00	06/02/2014	bird	Pyrhula pyrrhula	Common Bullfinch	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	06/02/2014 00:00	06/02/2014	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	05/02/2014 00:00	05/02/2014	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	several
Western Moors LWS	SE10	Uppermost Clough	05/02/2014 00:00	05/02/2014	bird	Scelopax rusticola	Woodcock	0.00	0.00	1.00	415000.00	405000.00	1 put up on moorland
Dunford Bridge	SE1602	Stanhope Arms pub	04/02/2014 00:00	04/02/2014	bird	Carduelis carduelis	European Goldfinch	0.00	0.00	1.00	416500.00	402500.00	Approx 20 in grounds of former pub.
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Upper Don Trail (TPT)	SE2999	Section east of Dunford Bridge	04/02/2014 00:00	04/02/2014	bird	Pyrhula pyrrhula	Common Bullfinch	0.00	0.00	1.00	429500.00	499500.00	
Hazlehead	SE1802		05/06/2012 00:00	05/06/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	418500.00	402500.00	lapwing 2 No. over wheat
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Scolopax rusticola	Eurasian Woodcock	0.00	0.00	1.00	415000.00	405000.00	Flushed from drain.
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Scolopax rusticola	Eurasian Woodcock	0.00	0.00	1.00	415000.00	405000.00	Flushed from Long Grain Clough.
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Near Long Grain Clough.
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Crow Edge	SE1804	Bents Fm.	04/06/2012 00:00	04/06/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	418500.00	404500.00	lapwing over IG
Western Moors LWS	SE10	Acre Head	04/02/2014 00:00	04/02/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	
"BARNSELY MBC"	SE30	field at Crow Edge	30/05/2012 00:00	30/05/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	on territory in field
Western Moors LWS	SE10	Low Moor Farm	04/02/2014 00:00	04/02/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 70 foraging in sheep pasture.
Western Moors LWS	SE10	Low Moor Farm	04/02/2014 00:00	04/02/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Windledon Edge	12/05/2012 00:00	12/05/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	on territory in field
Western Moors LWS	SE10	Low Moor Farm	04/02/2014 00:00	04/02/2014	bird	Alauda arvensis	Sky Lark	0.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
Western Moors LWS	SE10	Thurlstone Moors	04/02/2014 00:00	04/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Hazlehead	SE1802		30/03/2012 00:00	30/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	418500.00	402500.00	lapwing on SI grass
Western Moors LWS	SE10	Tinker Hill	30/03/2012 00:00	30/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	lapwing displaying on Tinker Hill
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed from edge of wood near Short Grain Head.
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Scolopax rusticola	Eurasian Woodcock	0.00	0.00	1.00	415000.00	405000.00	Flushed near Dick Royd.
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed near Dick Royd.
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed near Heald Common.
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed from bracken.
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	03/02/2014 00:00	03/02/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	Approx 120 in trees near bottom end of Wogden Clough.
Hazlehead	SE1802		30/03/2012 00:00	30/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	418500.00	402500.00	On semi-improved grassland
Western Moors LWS	SE10	Dunford Bridge	30/03/2012 00:00	30/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Displaying on Tinker Hill
Dunford Bridge	SE1602		03/02/2014 00:00	03/02/2014	bird	Anser brachyrhynchus	Pink-footed Goose	0.00	0.00	1.00	416500.00	402500.00	Approx 170 overhead flying north-west.
Upper Don Trail (TPT)	SE2999	Section east of Dunford Bridge	22/01/2014 00:00	22/01/2014	bird	Pyrhula pyrrhula	Common Bullfinch	0.00	0.00	1.00	429500.00	499500.00	
Western Moors LWS	SE10	Reddishaw Knoll Plantation	22/01/2014 00:00	22/01/2014	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Langsett Woods	22/01/2014 00:00	22/01/2014	bird	Regulus regulus	Goldcrest	0.00	0.00	1.00	415000.00	405000.00	Singing in adjacent plantation
Western Moors LWS	SE10	Acre Head	22/01/2014 00:00	22/01/2014	bird	Turdus iliacus	Redwing	0.00	1.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Acre Head	22/01/2014 00:00	22/01/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	

Western Moors LWS	SE10	Far Swinden	22/01/2014 00:00	22/01/2014	bird	Picus viridis	Green Woodpecker	0.00	0.00	1.00	415000.00	405000.00	
Flouch	SE1901	Fields off Old Manchester Road	21/01/2014 00:00	21/01/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	419500.00	401500.00	Approx 120 foraging in fields.
Upper Don Trail (TPT)	SE2999	Section east of Dunford Bridge	21/01/2014 00:00	21/01/2014	bird	Carduelis carduelis	European Goldfinch	0.00	0.00	1.00	429500.00	499500.00	Approx. 20.
Upper Don Trail (TPT)	SE2999	Section east of Dunford Bridge	21/01/2014 00:00	21/01/2014	bird	Aegithalus caudatus	Long-tailed Tit	0.00	0.00	0.00	429500.00	499500.00	
Upper Don Trail (TPT)	SE2999	Section east of Dunford Bridge	21/01/2014 00:00	21/01/2014	bird	Poecile montanus	Willow Tit	0.00	0.00	1.00	429500.00	499500.00	
Western Moors LWS	SE10	Thurlstone Moors	21/01/2014 00:00	21/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed from Heald Common.
Western Moors LWS	SE10	Thurlstone Moors	21/01/2014 00:00	21/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flushed from Heald Common.
Western Moors LWS	SE10	Fields at Rolly Holme	21/01/2014 00:00	21/01/2014	bird	Scolopax rusticola	Eurasian Woodcock	0.00	0.00	1.00	415000.00	405000.00	Flushed from damp grassland.
Western Moors LWS	SE10	Reddishaw Knoll	21/01/2014 00:00	21/01/2014	bird	Pluvialis apricaria	European Golden Plover	0.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
Western Moors LWS	SE10	Swinden Lane	26/03/2012 00:00	26/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	In known breeding fields.
Western Moors LWS	SE10	field by Dog and Partridge	01/03/2012 00:00	01/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	several
Western Moors LWS	SE10	Langsett Woods	17/01/2014 00:00	17/01/2014	bird	Troglodytes troglodytes	Winter Wren	0.00	0.00	0.00	415000.00	405000.00	
Upper Don Trail (TPT)	SE2999	Section east of Cote Bank Bridge	13/01/2014 00:00	13/01/2014	bird	Sitta europaea	Wood Nuthatch	0.00	0.00	0.00	429500.00	499500.00	
Upper Don Valley	SE10	Castle Hill	13/01/2014 00:00	13/01/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 200 foraging in field.
Upper Don Valley	SE10	Castle Hill	13/01/2014 00:00	13/01/2014	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	Approx 50 foraging in field.
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	bird	Scolopax rusticola	Eurasian Woodcock	0.00	0.00	1.00	415000.00	405000.00	Flushed from wet area.
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	bird	Sturnus vulgaris	Common Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 250 in trees near bottom end of Wogden Clough.
Western Moors LWS	SE10	Thurlstone Moors	13/01/2014 00:00	13/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	Flying west.
Western Moors LWS	SE10	Reddishaw Knoll	13/01/2014 00:00	13/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Cat Clough Head	13/01/2014 00:00	13/01/2014	bird	Lagopus lagopus	Willow Ptarmigan	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	opposite Dog & Partridge	01/03/2012 00:00	01/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	several in field
Thurlstone Moors	SE10		01/03/2012 00:00	01/03/2012	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Back in breeding areas.
Snittlegate	SE1504		01/07/2011 00:00	01/07/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	404500.00	1 Count
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	403500.00	1 Count
Western Moors LWS	SE10	Upper Dead Edge	04/12/2013 00:00	04/12/2013	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	flock of ca30 in flight over moorland
Western Moors LWS	SE10	Snaalsden Moor	04/12/2013 00:00	04/12/2013	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	put up from Molinia moorland
Little Don Valley (above Lar	SE10	river	29/09/2013 00:00	29/09/2013	bird	Cinclus cinclus	Dipper	0.00	0.00	0.00	415000.00	405000.00	2 together
Langsett Moors	SK19	Langsett	01/05/2011 00:00	01/05/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	395000.00	adults + 4 chicks Dog & Partridge end
'BARNSELY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNSELY MBC'	SE30	SE10S-3	23/04/2011 00:00	23/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
Winscar Reservoir	SE1503		06/07/2013 00:00	06/07/2013	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415500.00	403500.00	with chicks
Winscar Reservoir	SE1503	car park	06/07/2013 00:00	06/07/2013	bird	Anser anser	Greylag Goose	0.00	1.00	1.00	415500.00	403500.00	small flock
'BARNSELY MBC'	SE30	SE10V-4	22/04/2011 00:00	22/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Snaalsden Moor	06/07/2013 00:00	06/07/2013	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Snaalsden Moor	06/07/2013 00:00	06/07/2013	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Dunford bridge	06/07/2013 00:00	06/07/2013	bird	Strix aluco	Tawny Owl	0.00	0.00	0.00	415000.00	405000.00	1 hooting
Dunford Bridge	SE1602	Trans Pennine Trail	06/07/2013 00:00	06/07/2013	bird	Motacilla cinerea	Grey Wagtail	0.00	0.00	1.00	416500.00	402500.00	
Crow Edge	SE1804		06/07/2013 00:00	06/07/2013	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	418500.00	404500.00	
'BARNSELY MBC'	SE30	SE10W-3	22/04/2011 00:00	22/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Crow Edge	SE1804		06/07/2013 00:00	06/07/2013	bird	Delichon urbica	House Martin	0.00	0.00	1.00	418500.00	404500.00	
'BARNSELY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes.
'BARNSELY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNSELY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNSELY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	405000.00	Singing over sheep pasture with rushes.
'BARNSELY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Thurlstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	Flushed from ditch alongside bridleway.
'BARNSELY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNSELY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNSELY MBC'	SE30	SE10W-1	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNSELY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Thurlstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes near Low Moor Farm.
'BARNSELY MBC'	SE30	SE10W-3	20/04/2011 00:00	20/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Winscar Reservoir	SE1503		10/04/2011 00:00	10/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415500.00	403500.00	4 Count
Harden Clough, Snaalsden	SE10		02/04/2011 00:00	02/04/2011	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	2 Count
Victoria	SE1604		27/06/2009 00:00	27/06/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	416500.00	404500.00	post breeding flock?
Carlecotes	SE10	Fields to south of Bents Road (B6106)	14/03/2013 00:00	14/03/2013	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	405000.00	In semi-improved pasture.
Western Moors LWS	SE10	Tinker Hill	25/06/2009 00:00	25/06/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Snittlegate	SE1504		03/06/2009 00:00	03/06/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415500.00	404500.00	Between: 15:00-16:00.
Snittlegate	SE1504		30/05/2009 00:00	30/05/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415500.00	404500.00	Between: 17:20-18:20.
Harden Clough, Snaalsden	SE10	Harden Clough	28/05/2009 00:00	28/05/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Between: 14:20-16:20.
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture to east of bridleway from Acre Head.
Tinker Hill, East of Harden	SE10	Tinker Hill	24/05/2009 00:00	24/05/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Between: 06:00-06:00.
Snittlegate	SE1504		12/05/2009 00:00	12/05/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415500.00	404500.00	Between: 15:00-16:40.
Snittlegate	SE1504		11/05/2009 00:00	11/05/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415500.00	404500.00	Between: 16:10-17:00.
Harden Clough, Snaalsden	SE10	Harden Clough	30/04/2009 00:00	30/04/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Between: 14:30-15:49.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Western Moors LWS	SE10	Dog & Partridge	04/05/2008 00:00	04/05/2008	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	at least 12 pairs, prob more
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Langsett Moors	SK19	Langsett	01/05/2007 00:00	01/05/2007	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	415000.00	395000.00	field at Dog & Partridge

Farmland west of Flouch Int	SE1901	The Flouch	14/03/2007 00:00	14/03/2007	bird	Vanellus vanellus	Lapwing	1.00	0.00	1.00	419500.00	401500.00	
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Displaying.
Western Moors LWS	SE10	Moorland off Law Common Road	24/03/2014 00:00	24/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Low Moor Farm	24/03/2014 00:00	24/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In sheep pasture.
Thurstone Moors	SE10	Reddishaw Knoll	14/03/2013 00:00	14/03/2013	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	In sheep pasture with rushes.
Thurstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 30 foraging in sheep pasture near Low Moor Farm.
Thurstone Moors	SE10	Low Moor	14/03/2013 00:00	14/03/2013	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 50 foraging in sheep pasture near Low Moor Farm.
Wincscar Reservoir	SE10L	Booth Hill	14/03/2013 00:00	14/03/2013	bird	Columba oenas	Stock Dove	0.00	0.00	1.00	415000.00	403000.00	Flew in from east and landed in grassland.
Wincscar Reservoir	SE10L	Eastern bank of reservoir	14/03/2013 00:00	14/03/2013	bird	Anser anser	Greylag Goose	0.00	1.00	1.00	415000.00	403000.00	At least 8 (mostly farmyard hybrids) around car park.
Wincscar Reservoir	SE10L	Eastern bank of reservoir	14/03/2013 00:00	14/03/2013	bird	Larus ridibundus	Black-Headed Gull	0.00	0.00	1.00	415000.00	403000.00	Near car park.
Wincscar Reservoir	SE10L	Northern end of reservoir (near Harden)	14/03/2013 00:00	14/03/2013	bird	Bucephala clangula	Goldeneye	0.00	1.00	1.00	415000.00	403000.00	Male and female.
Wincscar Reservoir	SE10L	Broad Hill Bank	14/03/2013 00:00	14/03/2013	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	403000.00	
Carlecotes	SE10	Flight Hill	14/03/2013 00:00	14/03/2013	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	On edge of moorland.
Western Moors LWS	SE10	Low Edge Quarries (Harden)	10/03/2014 00:00	10/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In area of burnt and regenerating heather to north of quarries.
Carlecotes	SE10	Fields to south of Bents Road (B6106)	14/03/2013 00:00	14/03/2013	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	Approx 25 in improved grassland.
Dunford Bridge	SE1602	Stoneygate House	14/03/2013 00:00	14/03/2013	bird	Carduelis chloris	Greenfinch	0.00	0.00	0.00	416500.00	402500.00	Singing.
Dunford Bridge	SE1602	Stanhope Arms pub	14/03/2013 00:00	14/03/2013	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	416500.00	402500.00	In trees around car park.
Dunford Bridge	SE1602	Stanhope Arms pub	14/03/2013 00:00	14/03/2013	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	416500.00	402500.00	At least 10 in trees around car park.
Flouch	SE1901	Reddishaw Knoll Plantation	14/03/2013 00:00	14/03/2013	bird	Columba oenas	Stock Dove	0.00	0.00	1.00	419500.00	401500.00	
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture to west of bridleway from Acre Head.
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	419500.00	401500.00	Approx 10 in semi-improved pasture to east of bridleway from Acre Head.
Flouch	SE1901	Fields to west of Whams Road (A616)	14/03/2013 00:00	14/03/2013	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	419500.00	401500.00	Approx 40 in semi-improved pasture to east of bridleway.
Flouch	SE1901	Old Manchester Road	14/03/2013 00:00	14/03/2013	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	419500.00	401500.00	Singing.
Flouch	SE1901	Bridleway from Acre Head to Cote Bank	14/03/2013 00:00	14/03/2013	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	419500.00	401500.00	In semi-improved pasture to east of bridleway.
Wogden Foot LWS	SE1702	Western end of site	14/03/2013 00:00	14/03/2013	bird	Aegithalos caudatus	Long-Tailed Tit	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Western end of site	14/03/2013 00:00	14/03/2013	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	417500.00	402500.00	Singing.
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Foraging around muck heap in semi-improved pasture.
Townhead	SE10	Gardens in village	14/03/2013 00:00	14/03/2013	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Singing.
Townhead	SE10	Gardens in village	14/03/2013 00:00	14/03/2013	bird	Carduelis chloris	Greenfinch	0.00	0.00	0.00	415000.00	405000.00	Singing.
Western Moors LWS	SE10	Fields off Brook Hill Lane	10/03/2014 00:00	10/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field near junction with Dunford Road.
Townhead	SE10	Fields to south of Brook Hill Lane	14/03/2013 00:00	14/03/2013	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	Approx 60 foraging in semi-improved pasture.
Flouch	SE1901	Fields to west of Whams Road (A616)	06/03/2014 00:00	06/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	
Western Moors LWS	SE10	Reddishaw Knoll	06/03/2014 00:00	06/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Mobbing carrion crow.
Wincscar Reservoir	SE1503	Wincscar Res	12/01/2013 00:00	12/01/2013	bird	Bucephala clangula	Goldeneye	0.00	1.00	1.00	415500.00	403500.00	
Dunford Bridge TP Trail	SE10		09/01/2013 00:00	09/01/2013	bird	Scolopax rusticola	Woodcock	0.00	0.00	1.00	415000.00	405000.00	1 live flushed up
Dunford Bridge TP Trail	SE10		09/01/2013 00:00	09/01/2013	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	2 on trail
Dunford Bridge TP Trail	SE10		09/01/2013 00:00	09/01/2013	bird	Pyrhula pyrrhula	Bullfinch	0.00	0.00	1.00	415000.00	405000.00	flock of 9
Western Moors LWS	SE10	Low Moor Farm	06/03/2014 00:00	06/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Dunford Bridge TP Trail	SE10	bottom of Wogden Clough	09/01/2013 00:00	09/01/2013	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	flock of 7
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In arable field west of Dog & Partridge.
Wincscar Reservoir	SE1503		02/08/2012 00:00	02/08/2012	bird	Picus viridis	Green Woodpecker	0.00	0.00	1.00	415500.00	403500.00	In and around heather in old quarries.
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In large field adjoining Langsett Woods.
Crow Edge Spoil Heap	SE1804	Crow Edge Tip	30/05/2012 00:00	30/05/2012	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	418500.00	404500.00	2 on tip
Crow Edge Spoil Heap	SE1804	Crow Edge Tip	30/05/2012 00:00	30/05/2012	bird	Picus viridis	Green Woodpecker	0.00	0.00	1.00	418500.00	404500.00	1 on tip
Western Moors LWS	SE10	Swinden Plantation	25/05/2012 00:00	25/05/2012	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	405000.00	BTO Habitat Code: A2.4.19: Heard, probably in old broadleaved tree.
Western Moors LWS	SE10	Swinden Plantation	25/05/2012 00:00	25/05/2012	bird	Sylvia atricapilla	Blackcap	0.00	0.00	0.00	415000.00	405000.00	BTO Habitat Code: A2.4.19: Heard, probably in old broadleaved tree.
Western Moors LWS	SE10	Fields off A628	04/03/2014 00:00	04/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field east of Park Gate Farm.
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to north of track.
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to north of track.
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Flushed from field to south of track by sparrowhawk.
Western Moors LWS	SE10		12/05/2012 00:00	12/05/2012	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	near Snailsden Reservoir	12/05/2012 00:00	12/05/2012	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	2 in flight
Western Moors LWS	SE10	Fields off Swinden Lane	01/03/2014 00:00	01/03/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to north of track.
Flouch	SE1901	Fields to west of Whams Road (A616)	26/02/2014 00:00	26/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	
Dunford Bridge	SE1602		17/04/2012 00:00	17/04/2012	bird	Asio flammeus	Short-Eared Owl	0.00	0.00	1.00	416500.00	402500.00	short-eared owl over SI grass
Western Moors LWS	SE10	Little Don valley	01/04/2012 00:00	01/04/2012	bird	Motacilla cinerea	Grey Wagtail	0.00	0.00	1.00	415000.00	405000.00	2 on river
Western Moors LWS	SE10	Reddishaw Knoll	26/02/2014 00:00	26/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Hazlehead	SE1802		30/03/2012 00:00	30/03/2012	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	418500.00	402500.00	skylark singing over improved grass
Western Moors LWS	SE10	Low Moor Farm	26/02/2014 00:00	26/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Approx 50.
Western Moors LWS	SE10	Windleden Farm	25/02/2014 00:00	25/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field near Goddard Lane.
Western Moors LWS	SE10	Windleden Farm	25/02/2014 00:00	25/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field near Goddard Lane.
Hazlehead	SE1802		30/03/2012 00:00	30/03/2012	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	418500.00	402500.00	Singing over improved grassland

Western Moors LWS	SE10	Fields off A628	25/02/2014 00:00	25/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to west of Milton Lodge.
Western Moors LWS	SE10	Fields off A628	25/02/2014 00:00	25/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Little Don Valley	27/03/2012 00:00	27/03/2012	bird	Motacilla cinerea	Grey Wagtail	0.00	0.00	1.00	415000.00	405000.00	1 on river
Western Moors LWS	SE10	Little Don Valley	27/03/2012 00:00	27/03/2012	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	several
Western Moors LWS	SE10	Fields off A628	25/02/2014 00:00	25/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field on north side of Swinden Lane (track).
Western Moors LWS	SE10	Fields off A628	25/02/2014 00:00	25/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field on north side of Swinden Lane (track).
Western Moors LWS	SE10	Swinden Lane	26/03/2012 00:00	26/03/2012	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Around area.
Carlecotes	SE10		06/03/2012 00:00	06/03/2012	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	
Carlecotes	SE10		06/03/2012 00:00	06/03/2012	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	
Carlecotes	SE10		04/03/2012 00:00	04/03/2012	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	starling 5 No.
Carlecotes	SE10		04/03/2012 00:00	04/03/2012	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	
Flouch	SE1901	Fields to west of Whams Road (A616)	22/02/2014 00:00	22/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture.
Flouch	SE1901	Fields to west of Whams Road (A616)	22/02/2014 00:00	22/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	In semi-improved pasture.
Western Moors LWS	SE10	Cat Clough Head	22/02/2014 00:00	22/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Two flocks flying west. Approx 160 birds in total.
Western Moors LWS	SE10	Reddishaw Knoll	22/02/2014 00:00	22/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Approx 50.
Fox Clough	SE1800	Field off Swinden Lane	21/02/2014 00:00	21/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	418500.00	400500.00	In field west of Swinden Lane (outside Western Moors LWS).
Western Moors LWS	SE10	Fields off A628	21/02/2014 00:00	21/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field on north side of road, west of Milton Lodge.
Western Moors LWS	SE10	Fields off A628	21/02/2014 00:00	21/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field on north side of road, east of Milton Lodge.
Western Moors LWS	SE10	Fields off Swinden Lane	21/02/2014 00:00	21/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to north of lane.
Western Moors LWS	SE10	Windleden Edge	19/11/2011 00:00	19/11/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	ca 30 in flight
Western Moors LWS	SE10	Harden Quarries	19/11/2011 00:00	19/11/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	frequent
Western Moors LWS	SE10	moors nr Snailsden Res.	19/11/2011 00:00	19/11/2011	bird	Loxia curvirostra	Crossbill	0.00	0.00	0.00	415000.00	405000.00	flock of 25 from nearby pines
Western Moors LWS	SE10	Western Moors LWS	19/11/2011 00:00	19/11/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	flock of 12 in flight
Winscar Reservoir	SE1503		06/11/2011 00:00	06/11/2011	bird	Anser anser	Greylag Goose	0.00	1.00	1.00	415500.00	403500.00	12 Count of present
Winscar Reservoir	SE1503		01/11/2011 00:00	01/11/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415500.00	403500.00	50 Count
Winscar Reservoir	SE1503		01/11/2011 00:00	01/11/2011	bird	Buteo lagopus	Rough-Legged Buzzard	0.00	0.00	0.00	415500.00	403500.00	1 Count
Winscar Reservoir	SE1503		29/10/2011 00:00	29/10/2011	bird	Buteo lagopus	Rough-Legged Buzzard	0.00	0.00	0.00	415500.00	403500.00	1 Count
Tinker Hill	SE1603		16/10/2011 00:00	16/10/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	416500.00	403500.00	several in flight calling
Winscar Reservoir	SE1503		16/10/2011 00:00	16/10/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	403500.00	1
Winscar Reservoir	SE1503	north arm	16/10/2011 00:00	16/10/2011	bird	Anser	Anser	0.00	0.00	0.00	415500.00	403500.00	ca 30 white domestic geese counted
'BARNSELY MBC	SE30	Flight Hill	16/10/2011 00:00	16/10/2011	bird	Lanius excubitor	Great Grey Shrike	0.00	0.00	0.00	435000.00	405000.00	1
Wogden Foot LWS	SE1702	Wogden Foot	16/10/2011 00:00	16/10/2011	bird	Certhia familiaris	Treecreeper	0.00	0.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Wogden Foot	16/10/2011 00:00	16/10/2011	bird	Aegithalos caudatus	Long-Tailed Tit	0.00	0.00	0.00	417500.00	402500.00	
Linshaws Quarry	SE1404		16/10/2011 00:00	16/10/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	414500.00	404500.00	good numbers calling and flying at dusk
Western Moors LWS	SE10	Flight Hill	18/09/2011 00:00	18/09/2011	bird	Larus fuscus	Lesser Black-Backed Gull	0.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Flight Hill	18/09/2011 00:00	18/09/2011	bird	Larus michahellis	Yellow-legged Gull	0.00	0.00	1.00	415000.00	405000.00	3rd summer
Western Moors LWS	SE10	Fields off Swinden Lane	21/02/2014 00:00	21/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to north of lane.
Western Moors LWS	SE10	Fields between A628 and Fox Clough	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Flock of approx 30 circling and dropping down.
Snittlegate	SE1504		01/07/2011 00:00	01/07/2011	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415500.00	404500.00	3 Count
Snittlegate	SE1504		01/07/2011 00:00	01/07/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	404500.00	4 Count
Western Moors LWS	SE10	Square Piece	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Langsett Moors	SK19	Langsett	26/06/2011 00:00	26/06/2011	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	395000.00	drumming at Dog & Partridge fields
Langsett Reservoir	SK204002	Langsett res	26/06/2011 00:00	26/06/2011	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	420450.00	300250.00	
Swinden Plantation	SE1800	Swinden	26/06/2011 00:00	26/06/2011	bird	Phoenicurus phoenicurus	Redstart	0.00	0.00	1.00	418500.00	400500.00	ad +juv (confirmed breeding)
Swinden Plantation	SE1800	Swinden	26/06/2011 00:00	26/06/2011	bird	Carduelis flammaea	Redpoll	0.00	0.00	0.00	418500.00	400500.00	singing male
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field behind Dog & Partridge.
Winscar Reservoir	SE1503		19/06/2011 00:00	19/06/2011	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415500.00	403500.00	4 Count
Flight Hill	SE1504		03/06/2011 00:00	03/06/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	404500.00	1 Count
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Approx 200 in field to west of Milton Lodge.
Harden Clough, Snailsden	SE10		01/06/2011 00:00	01/06/2011	bird	Carduelis chloris	Greenfinch	0.00	0.00	0.00	415000.00	405000.00	1 Count
Hade Edge	SE1405		01/06/2011 00:00	01/06/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	414500.00	405500.00	3 Count
Harden Clough, Snailsden	SE10		07/05/2011 00:00	07/05/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	405000.00	1 Count
Hordron Bank, Langsett Moors	SK1799		05/05/2011 00:00	05/05/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	417500.00	395000.00	several Count of Pair
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415500.00	403500.00	2 Count
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415500.00	403500.00	4 Count
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Columba oenas	Stock Dove	0.00	0.00	1.00	415500.00	403500.00	2 Count
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Aythya fuligula	Tufted Duck	0.00	0.00	0.00	415500.00	403500.00	2 Count
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Charadrius dubius	Little Ringed Plover	0.00	1.00	0.00	415500.00	403500.00	1 Count
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to east of Milton Lodge.
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Anser anser	Greylag Goose	0.00	1.00	1.00	415500.00	403500.00	1 Count
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415500.00	403500.00	3 Count
Winscar Reservoir	SE1503		05/05/2011 00:00	05/05/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415500.00	403500.00	7 Count
Hordron Bank, Langsett Moors	SK1799		05/05/2011 00:00	05/05/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	417500.00	395000.00	several Count of Pair
Western Moors LWS	SE10	Bord Hill Flat	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Flock circling and dropping down.
Western Moors LWS	SE10	Fields off A628	18/02/2014 00:00	18/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field to north of road.
Langsett Moors	SK19	Langsett	01/05/2011 00:00	01/05/2011	bird	Phoenicurus phoenicurus	Redstart	0.00	0.00	1.00	415000.00	395000.00	singing males
Flouch	SE1901	Fields to west of Whams Road (A616)	16/02/2014 00:00	16/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	flying south.
Langsett Moors	SK19	Langsett	01/05/2011 00:00	01/05/2011	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	395000.00	displaying D&P
Langsett Moors	SK19	Langsett	01/05/2011 00:00	01/05/2011	bird	Carduelis flammaea	Redpoll	0.00	0.00	0.00	415000.00	395000.00	singing males

Harden Clough, Snailsden	SE10		01/05/2011 00:00	01/05/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	405000.00	1 Count
Western Moors LWS	SE10	Fields off A628	10/02/2014 00:00	10/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	In field on north side of road, to west of Milton Lodge.
'BARNLEY MBC'	SE30	SE10R-2	23/04/2011 00:00	23/04/2011	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10R-2	23/04/2011 00:00	23/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10R-2	23/04/2011 00:00	23/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10S-1	23/04/2011 00:00	23/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10S-1	23/04/2011 00:00	23/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Bord Hill Flat	10/02/2014 00:00	10/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Western Moors LWS	SE10	Low Moor Farm	07/02/2014 00:00	07/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
'BARNLEY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Carduelis cannabina	Linnets	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Fields off Swinden Lane	06/02/2014 00:00	06/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Approx 20 flying west.
'BARNLEY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10R-4	23/04/2011 00:00	23/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Flouch	SE1901	Fields to west of Whams Road (A616)	04/02/2014 00:00	04/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	
Winscar Reservoir	SE1503		23/04/2011 00:00	23/04/2011	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415500.00	403500.00	1 Count
Winscar Reservoir	SE1503		23/04/2011 00:00	23/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	403500.00	1 Count
Western Moors LWS	SE10	Low Moor Farm	04/02/2014 00:00	04/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Winscar Reservoir	SE1503		23/04/2011 00:00	23/04/2011	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415500.00	403500.00	2 Count
Winscar Reservoir	SE1503		23/04/2011 00:00	23/04/2011	bird	Charadrius dubius	Little Ringed Plover	0.00	1.00	0.00	415500.00	403500.00	2 Count
'BARNLEY MBC'	SE30	SE10V-4	22/04/2011 00:00	22/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Low Moor Farm	04/02/2014 00:00	04/02/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	Approx 65 flying south overhead.
'BARNLEY MBC'	SE30	SE10V-4	22/04/2011 00:00	22/04/2011	bird	Delichon urbica	House Martin	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
Western Moors LWS	SE10	Reddishaw Knoll	21/01/2014 00:00	21/01/2014	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
Harden Clough, Snailsden	SE10		26/03/2011 00:00	26/03/2011	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	2 Count
Thurlstone Moors	SE10	Langsett	28/04/2010 00:00	28/04/2010	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	6 or 8 birds flying and calling above moors.
Swinden Lane, Langsett Mo	SE10V		21/04/2010 00:00	21/04/2010	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419000.00	401000.00	
'BARNLEY MBC'	SE30	SE10W-3	22/04/2011 00:00	22/04/2011	bird	Carduelis flammea	Redpoll	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
Swinden Lane, Langsett Mo	SE10V		12/06/2009 00:00	12/06/2009	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419000.00	401000.00	in air with some young%0A
'BARNLEY MBC'	SE30	SE10Q-1	20/04/2011 00:00	20/04/2011	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-1	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-1	20/04/2011 00:00	20/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-2	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-2	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-2	20/04/2011 00:00	20/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10Q-2	20/04/2011 00:00	20/04/2011	bird	Carduelis flammea	Redpoll	0.00	0.00	0.00	435000.00	405000.00	Breeding confirmed
Flight Hill	SE1504		23/04/2009 00:00	23/04/2009	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415500.00	404500.00	Between: 14:40-16:20.
Flight Hill	SE1504		22/04/2009 00:00	22/04/2009	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415500.00	404500.00	Between: 10:00-10:00.
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Valley of River Little Don, a	SE10		05/06/2008 00:00	05/06/2008	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	BTO Habitat Code: D3.5.3: Probably some young.%0A
Valley of River Little Don, a	SE10		05/06/2008 00:00	05/06/2008	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	BTO Habitat Code: D3.5.3:%0A
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Langsett Moors	SK19	Dog & Partridge Inn CP	04/05/2008 00:00	04/05/2008	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	395000.00	seen from CP of Dog & Partridge Inn - on ground and flying around%0A
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
farmland west of Flouch Int	SE1901	Around Dog & Partridge	16/03/2008 00:00	16/03/2008	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	In fields, from passing car.%0A
farmland west of Flouch Int	SE1901	Bord Hill	02/11/2006 00:00	02/11/2006	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	419500.00	401500.00	BTO Habitat Code: E1.4.1: Across %0Afields with about 10 jackdaws.
'BARNLEY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-4	20/04/2011 00:00	20/04/2011	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Carlecotes	SE10	Carlecotes	31/05/2006 00:00	31/05/2006	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	+
Winscar Reservoir	SE10L	Winscar Reservoir	06/05/2006 00:00	06/05/2006	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	403000.00	
Harden Clough, Snailsden	SE10	Harden Clough	16/04/2006 00:00	16/04/2006	bird	Vanellus vanellus	Northern Lapwing	1.00	0.00	1.00	415000.00	405000.00	
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Carduelis cannabina	Linnets	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Land adjoining Grains Plantation	13/03/2014 00:00	13/03/2014	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
Western Moors LWS	SE10	Fields at Snailsden	13/03/2014 00:00	13/03/2014	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	Heard calling but not seen.
Western Moors LWS	SE10	Moorland near Finkle Edge	12/03/2014 00:00	12/03/2014	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	Calling in rushes.
Western Moors LWS	SE10	Fields at Rolly Holme	10/03/2014 00:00	10/03/2014	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	In willow scrub along eastern boundary of field.
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Phoenicurus phoenicurus	Redstart	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Carduelis flammea	Redpoll	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'													

'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Phoenicurus phoenicurus	Redstart	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Phoenicurus phoenicurus	Redstart	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
Western Moors LWS	SE10	Low Edge Quarries (Harden)	06/03/2014 00:00	06/03/2014	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	In rushes near shallow pool.
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Western Moors LWS	SE10	Thurstone Moors	16/02/2014 00:00	16/02/2014	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	In rushes.
Western Moors LWS	SE10	Bridleway from Acre Head to Cote Bank	16/02/2014 00:00	16/02/2014	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	In rushes along bridleway.
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Carduelis carduelis	Goldfinch	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10Q-3	20/04/2011 00:00	20/04/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-1	20/04/2011 00:00	20/04/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-2	20/04/2011 00:00	20/04/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10W-1	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10W-1	20/04/2011 00:00	20/04/2011	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	435000.00	405000.00	Breeding possible
Harden Clough, Snailsden	SE10		02/04/2011 00:00	02/04/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	1 Count
'BARNLEY MBC'	SE30	SE10W-1	20/04/2011 00:00	20/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10W-1	20/04/2011 00:00	20/04/2011	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10W-1	20/04/2011 00:00	20/04/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Carduelis flammea	Redpoll	0.00	0.00	0.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Prunella modularis	Dunmuck	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
Harden Clough, Snailsden	SE10		05/03/2011 00:00	05/03/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	1 Count
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Regulus regulus	Goldcrest	0.00	0.00	1.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10V-4	20/04/2011 00:00	20/04/2011	bird	Carduelis chloris	Greenfinch	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
Harden Clough, Snailsden	SE10	Harden Clough	12/02/2011 00:00	12/02/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	Between: 14:30-15:45.
Harden Clough, Snailsden	SE10		12/02/2011 00:00	12/02/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	1 Count
Harden Clough, Snailsden	SE10	Harden Clough	06/01/2011 00:00	06/01/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	Between: 14:40-15:14.
'BARNLEY MBC'	SE30	SE10W-3	20/04/2011 00:00	20/04/2011	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
'BARNLEY MBC'	SE30	SE10W-3	20/04/2011 00:00	20/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10W-3	20/04/2011 00:00	20/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	435000.00	405000.00	Breeding confirmed
'BARNLEY MBC'	SE30	SE10W-3	20/04/2011 00:00	20/04/2011	bird	Carduelis flammea	Redpoll	0.00	0.00	0.00	435000.00	405000.00	Breeding probable
Harden Clough, Snailsden	SE10		10/04/2011 00:00	10/04/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	405000.00	1 Count
Harden Clough, Snailsden	SE10		10/04/2011 00:00	10/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	2 Count
Harden Clough, Snailsden	SE10	Harden Clough	06/01/2011 00:00	06/01/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	Between: 14:40-15:14.
Harden Clough, Snailsden	SE10		10/04/2011 00:00	10/04/2011	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	2 Count
Winscar Reservoir	SE1503		10/04/2011 00:00	10/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	403500.00	2 Count
Winscar Reservoir	SE1503		10/04/2011 00:00	10/04/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	403500.00	1 Count
Harden Clough, Snailsden	SE10		06/01/2011 00:00	06/01/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	1 Count
Harden Clough, Snailsden	SE10		06/01/2011 00:00	06/01/2011	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	1 Count
Winscar Reservoir	SE1503		10/04/2011 00:00	10/04/2011	bird	Mergus merganser	Goosander	0.00	0.00	0.00	415000.00	403500.00	1 Count
Winscar Reservoir	SE1503		10/04/2011 00:00	10/04/2011	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	403500.00	1 Count
Harden Clough, Snailsden	SE10		07/04/2011 00:00	07/04/2011	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	3 Count
Harden Clough, Snailsden	SE10		07/04/2011 00:00	07/04/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	405000.00	1 Count
Winscar Reservoir	SE1503		06/04/2011 00:00	06/04/2011	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	403500.00	2 Count
Winscar Reservoir	SE1503		06/04/2011 00:00	06/04/2011	bird	Saxicola torquata	Stonechat	0.00	0.00	1.00	415000.00	403500.00	2 Count
Winscar Reservoir	SE1503		06/04/2011 00:00	06/04/2011	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403500.00	2 Count
Valley of River Little Don at	SE1900		05/04/2011 00:00	05/04/2011	bird	Accipiter nisus	Eurasian Sparrowhawk	0.00	0.00	0.00	419500.00	405000.00	1 Count of In flight
Valley of River Little Don at	SE1900		05/04/2011 00:00	05/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	419500.00	405000.00	1-2 Count of Singing
Western Moors LWS	SE10	Valley of River Little Don above Langsett	05/04/2011 00:00	05/04/2011	bird	Accipiter nisus	Eurasian Sparrowhawk	0.00	0.00	0.00	415000.00	405000.00	1 Count of In flight
Western Moors LWS	SE10	Valley of River Little Don above Langsett	05/04/2011 00:00	05/04/2011	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	405000.00	heard in wood. BTO habitat Code: A3.14.39%0A
Harden Clough, Snailsden	SE10		02/04/2011 00:00	02/04/2011	bird	Prunella modularis	Dunmuck	0.00	0.00	1.00	415000.00	405000.00	2 Count
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Harden Clough, Snailsden	SE10		02/04/2011 00:00	02/04/2011	bird	Carduelis carduelis	Goldfinch	0.00	0.00	1.00	415000.00	405000.00	8 Count
Crow Edge	SE1804		15/06/2008 00:00	15/06/2008	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	418500.00	404500.00	pair carrying food
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Emberiza schoeniclus	Reed Bunting	1.00	0.00	1.00	415000.00	405000.00	
Winscar Reservoir	SE1503		02/04/2011 00:00	02/04/2011	bird	Pandion haliaetus	Osprey	0.00	1.00	1.00	415000.00	403500.00	1 Count
Winscar Reservoir	SE1503		29/03/2011 00:00	29/03/2011	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403500.00	2 Count
Winscar Reservoir	SE1503		29/03/2011 00:00	29/03/2011	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	403500.00	1 Count
Winscar Reservoir	SE1503		29/03/2011 00:00	29/03/2011	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	403500.00	1 Count
Snailsden Moss	SE10	Snailsden vismig	17/10/2009 00:00	17/10/2009	bird	Turdus torquatus	Ring Ouzel	1.00	0.00	1.00	415000.00	405000.00	south
Western Moors LWS	SE10	Ellerslie Lodge	26/06/2011 00:00	26/06/2011	bird	Muscicapa striata	Spotted Flycatcher	1.00	0.00	1.00	415000.00	405000.00	carrying food
Winscar Reservoir	SE1503		22/03/2011 00:00	22/03/2011	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403500.00	2 Count
Harden Clough, Snailsden	SE10		19/03/2011 00:00	19/03/2011	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	4 Count
Harden Clough, Snailsden	SE10		19/03/2011 00:00	19/03/2011	bird	Bucephala clangula	Goldeneye	0.00	1.00	1.00	415000.00	405000.00	2 Count
Harden Clough, Snailsden	SE10		05/03/2011 00:00	05/03/2011	bird	Carduelis carduelis	Goldfinch	0.00	0.00	1.00	415000.00	405000.00	4 Count
Harden Clough, Snailsden	SE10		05/03/2011 00:00	05/03/2011	bird	Prunella modularis	Dunmuck	0.00	0.00	1.00	415000.00	405000.00	1 Count

Hade Edge	SE1405		06/09/2009 00:00	06/09/2009	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	414500.00	405500.00	Between: 15:30-15:30.
Snailsden Moss	SE10	Snailsden vismig	06/09/2009 00:00	06/09/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	south
Winscar Reservoir	SE10L	Winscar	27/06/2009 00:00	27/06/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403000.00	
Windleden	SE1401		27/06/2009 00:00	27/06/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	401500.00	
Victoria	SE1604		27/06/2009 00:00	27/06/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	416500.00	404500.00	feeding in fields
Western Moors LWS	SE10	Tinker Hill	25/06/2009 00:00	25/06/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	
Harden Clough, Snailsden	SE10	Harden Clough	20/06/2009 00:00	20/06/2009	bird	Carduelis chloris	Greenfinch	0.00	0.00	0.00	415000.00	405000.00	Between: 14:00-15:00.
Harden Clough, Snailsden	SE10	Harden Clough	20/06/2009 00:00	20/06/2009	bird	Carduelis carduelis	Goldfinch	0.00	0.00	1.00	415000.00	405000.00	Between: 14:00-15:00.
Swinden Lane, Langsett M	SE10V		12/06/2009 00:00	12/06/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	419000.00	401000.00	with food in beaks%0A
Swinden Plantation, Langse	SE10V		12/06/2009 00:00	12/06/2009	bird	Loxia curvirostra	Common Crossbill	0.00	0.00	0.00	419000.00	401000.00	
Harden Clough, Snailsden	SE10	Harden Clough	04/06/2009 00:00	04/06/2009	bird	Saxicola torquata	Stonechat	0.00	0.00	1.00	415000.00	405000.00	Between: 16:00-18:19.
Harden Clough, Snailsden	SE10	Harden Clough	04/06/2009 00:00	04/06/2009	bird	Aythya fuligula	Tufted Duck	0.00	0.00	0.00	415000.00	405000.00	Between: 16:00-18:19.
Harden Clough, Snailsden	SE10	Harden Clough	04/06/2009 00:00	04/06/2009	bird	Charadrius dubius	Little Ringed Plover	0.00	1.00	0.00	415000.00	405000.00	Between: 16:00-18:19.
Harden Clough, Snailsden	SE10	Harden Clough	04/06/2009 00:00	04/06/2009	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	405000.00	Between: 16:00-18:19.
Winscar Reservoir	SE10L	Winscar Reservoir 2	04/06/2009 00:00	04/06/2009	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	403000.00	Between: 18:30-19:10.
Windleden Reservoirs, upp	SE10	Windleden Reservoir	04/06/2009 00:00	04/06/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Between: 19:20-19:40.
Snittlegate	SE1504		03/06/2009 00:00	03/06/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	404500.00	Between: 15:00-16:00.
Snittlegate	SE1504		03/06/2009 00:00	03/06/2009	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415500.00	404500.00	Between: 17:20-18:20.
Snittlegate	SE1504		30/05/2009 00:00	30/05/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	404500.00	Between: 17:20-18:20.
Harden Clough, Snailsden	SE10	Harden Clough	28/05/2009 00:00	28/05/2009	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	415000.00	405000.00	Between: 14:20-16:20.
Harden Clough, Snailsden	SE10	Harden Clough	28/05/2009 00:00	28/05/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Between: 14:20-16:20.
Harden Clough, Snailsden	SE10	Harden Clough	28/05/2009 00:00	28/05/2009	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	405000.00	Between: 14:20-16:20.
Tinker Hill, East of Harden	SE10	Tinker Hill	24/05/2009 00:00	24/05/2009	bird	Tetrao tetrix	Black Grouse	0.00	0.00	1.00	415000.00	405000.00	Between: 06:00-06:00.
Harden Clough, Snailsden	SE10	Harden Clough	11/05/2009 00:00	11/05/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	Between: 15:20-16:00.
Harden Clough, Snailsden	SE10	Harden Clough	11/05/2009 00:00	11/05/2009	bird	Carduelis carduelis	Goldfinch	0.00	0.00	1.00	415000.00	405000.00	Between: 15:20-16:00.
Harden Clough, Snailsden	SE10	Harden Clough	11/05/2009 00:00	11/05/2009	bird	Carduelis chloris	Greenfinch	0.00	0.00	0.00	415000.00	405000.00	Between: 15:20-16:00.
Snittlegate	SE1504		11/05/2009 00:00	11/05/2009	bird	Numenius phaeopus	Whimbrel	0.00	1.00	1.00	415500.00	404500.00	Between: 16:10-17:00.
Snittlegate	SE1504		11/05/2009 00:00	11/05/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	404500.00	Between: 16:10-17:00.
Harden Clough, Snailsden	SE10	Harden Clough	07/05/2009 00:00	07/05/2009	bird	Carduelis cannabina	Linnet	0.00	0.00	1.00	415000.00	405000.00	Between: 15:40-16:20.
Long Moor Clough, Langse	SE10		26/04/2009 00:00	26/04/2009	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	405000.00	seen and heard in area%0A
River Little Don above Lang	SE10		26/04/2009 00:00	26/04/2009	bird	Troglodytes troglodytes	Winter Wren	0.00	0.00	0.00	415000.00	405000.00	on river side%0A
Flight Hill	SE1504		23/04/2009 00:00	23/04/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415500.00	404500.00	Between: 14:40-16:20.
Flight Hill	SE1504		23/04/2009 00:00	23/04/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415500.00	404500.00	Between: 14:40-16:20.
Winscar Reservoir	SE10L	Winscar	23/04/2009 00:00	23/04/2009	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	403000.00	Between: 11:00-11:00. 1st. of the season
Winscar Reservoir	SE10L	Winscar	23/04/2009 00:00	23/04/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403000.00	Between: 11:00-11:00.
Winscar Reservoir	SE10L	Winscar	23/04/2009 00:00	23/04/2009	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	403000.00	Between: 11:00-11:00. 2 singing males
Flight Hill	SE1504		22/04/2009 00:00	22/04/2009	bird	Asio flammeus	Short-Eared Owl	0.00	0.00	1.00	415500.00	404500.00	Between: 10:00-10:00.
Flight Hill	SE1504		22/04/2009 00:00	22/04/2009	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415500.00	404500.00	Between: 10:00-10:00.
Flight Hill	SE1504		22/04/2009 00:00	22/04/2009	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415500.00	404500.00	Between: 10:00-10:00.
Swinden Plantation, Langse	SE10V	Swinden Plantation	22/04/2009 00:00	22/04/2009	bird	Accipiter gentilis	Goshawk	0.00	1.00	0.00	419000.00	401000.00	Between: 11:00-11:00.
Swinden Plantation, Langse	SE10V	Swinden Plantation	22/04/2009 00:00	22/04/2009	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	419000.00	401000.00	Between: 11:00-11:00.
Swinden Plantation, Langse	SE10V	Swinden Plantation	22/04/2009 00:00	22/04/2009	bird	Scolopax rusticola	Woodcock	0.00	0.00	1.00	419000.00	401000.00	Between: 11:00-11:00.
Harden Clough, Snailsden	SE10	Harden Clough	21/04/2009 00:00	21/04/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Between: 14:00-15:00.
Harden Clough, Snailsden	SE10	Harden Clough	21/04/2009 00:00	21/04/2009	bird	Motacilla alba	White/Pied Wagtail	0.00	0.00	0.00	415000.00	405000.00	Between: 14:00-15:00.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Tachybaptus ruficollis	Little Grebe	0.00	0.00	0.00	415000.00	405000.00	Between: 09:30-10:10.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Aythya fuligula	Tufted Duck	0.00	0.00	0.00	415000.00	405000.00	Between: 09:30-10:10.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Turdus viscivorus	Mistle Thrush	0.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Carlecotes	SE10	Carlecotes Ponds	14/04/2009 00:00	14/04/2009	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	405000.00	Between: 09:30-10:10.
Harden Clough, Snailsden	SE10L	Harden Clough	11/04/2009 00:00	11/04/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	Between: 17:20-17:30.
Winscar Reservoir	SE10L	Winscar Reservoir	05/03/2009 00:00	05/03/2009	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403000.00	Between: 13:30-14:40.
Winscar Reservoir	SE10L	Winscar Reservoir	05/03/2009 00:00	05/03/2009	bird	Tadorna tadorna	Shelduck	0.00	0.00	1.00	415000.00	403000.00	Between: 13:30-14:40.
Winscar Reservoir	SE10L	Winscar	01/02/2009 00:00	01/02/2009	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	403000.00	Between: 08:00-08:00.
Winscar Reservoir	SE10L	Winscar	01/02/2009 00:00	01/02/2009	bird	Bucephala clangula	Goldeneye	0.00	1.00	1.00	415000.00	403000.00	Between: 08:00-08:00.
Hade Edge	SE1405		10/01/2009 00:00	10/01/2009	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	414500.00	405500.00	Between: 15:30-15:30.
Snailsden Moss	SE10	Snailsden vismig	01/01/2009 00:00	01/01/2009	bird	Pyrhrhula pyrhrhula	Bullfinch	0.00	0.00	1.00	415000.00	405000.00	south between 6 Sept and 15 Nov in 5 watches
Snailsden Moss	SE10	Snailsden vismig	01/01/2009 00:00	01/01/2009	bird	Loxia curvirostra	Crossbill	0.00	0.00	0.00	415000.00	405000.00	south between 6 Sept and 15 Nov in 5 watches
Snailsden Moss	SE10	Snailsden vismig	01/01/2009 00:00	01/01/2009	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	south between 6 Sept and 15 Nov in 5 watches
Western Moors LWS	SE10	Snailsden	19/10/2008 00:00	19/10/2008	bird	Turdus iliacus	Redwing	0.00	1.00	1.00	415000.00	405000.00	south
Western Moors LWS	SE10	Snailsden	19/10/2008 00:00	19/10/2008	bird	Turdus pilaris	Fieldfare	0.00	1.00	1.00	415000.00	405000.00	south
Western Moors LWS	SE10	Snailsden	19/10/2008 00:00	19/10/2008	bird	Loxia curvirostra	Crossbill	0.00	0.00	0.00	415000.00	405000.00	south
Western Moors LWS	SE10	Snailsden	12/10/2008 00:00	12/10/2008	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	south
Western Moors LWS	SE10	Snailsden	12/10/2008 00:00	12/10/2008	bird	Anser brachyrhynchus	Pink-Footed Goose	0.00	0.00	1.00	415000.00	405000.00	north-west at 10:30
Western Moors LWS	SE10	Snailsden	21/09/2008 00:00	21/09/2008	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	415000.00	405000.00	south
Western Moors LWS	SE10	Snailsden	21/09/2008 00:00	21/09/2008	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	south
Winscar Reservoir	SE10L	Winscar	14/09/2008 00:00	14/09/2008	bird	Falco columbarius	Merlin	0.00	1.00	1.00	415000.00	403000.00	juv south
Western Moors LWS	SE10	Snailsden	14/09/2008 00:00	14/09/2008	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	south
Western Moors LWS	SE10	Snailsden	14/09/2008 00:00	14/09/2008	bird	Carduelis spinus	Siskin	0.00	0.00	0.00	415000.00	405000.00	south
Snailsden Reservoir	SE10		13/08/2008 00:00	13/08/2008	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	BTO Habitat Code: D3.5.1: Flying low over moor.%0A
Crow Edge	SE1804		15/06/2008 00:00	15/06/2008	bird	Carduelis cannabina	Linnet	0.00	0.00	1.00	418500.00	404500.00	pair in suitable habitat
Crow Edge	SE1804		15/06/2008 00:00	15/06/2008	bird	Motacilla cinerea	Grey Wagtail	0.00	0.00	1.00	418500.00	404500.00	male carrying food

Western Moors LWS	SE10	Bance Edge Plantation	15/06/2008 00:00	15/06/2008	bird	Sylvia borin	Garden Warbler	0.00	0.00	0.00	415000.00	405000.00	singing male transpennine trail
Western Moors LWS	SE10	Bance Edge Plantation	15/06/2008 00:00	15/06/2008	bird	Sylvia atricapilla	Blackcap	0.00	0.00	0.00	415000.00	405000.00	singing male
Western Moors LWS	SE10	Dog & Partridge	04/05/2008 00:00	04/05/2008	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	415000.00	405000.00	singing
Western Moors LWS	SE10	Dog & Partridge	04/05/2008 00:00	04/05/2008	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	drummers
Snailsden Moss	SE10	Snailsden	01/11/2007 00:00	01/11/2007	bird	Cygnus cygnus	Whooper Swan	0.00	1.00	1.00	415000.00	405000.00	east
Snailsden Moss	SE10	Snailsden	01/11/2007 00:00	01/11/2007	bird	Saxicola torquata	Stonechat	0.00	0.00	1.00	415000.00	405000.00	
Swinden Plantation	SE1800	Swinden	01/11/2007 00:00	01/11/2007	bird	Scolopax rusticola	Woodcock	0.00	0.00	1.00	418500.00	405000.00	
Snailsden Moss	SE10	Snailsden	01/10/2007 00:00	01/10/2007	bird	Falco peregrinus	Peregrine	0.00	1.00	1.00	415000.00	405000.00	south
Snailsden Moss	SE10	Snailsden	01/10/2007 00:00	01/10/2007	bird	Cygnus cygnus	Whooper Swan	0.00	1.00	1.00	415000.00	405000.00	east
Winscar Reservoir	SE10L	Winscar Reservoir	29/09/2007 00:00	29/09/2007	bird	Cairina moschata	Muscovy Duck				415000.00	403000.00	
TPT at Hazelhead	SE1902	Hazelhead	27/09/2007 00:00	27/09/2007	bird	Hirundo rustica	Barn Swallow	0.00	0.00	1.00	419500.00	402500.00	Young feeding low around trees%0A
TPT at Hazelhead	SE1902	Hazelhead	27/09/2007 00:00	27/09/2007	bird	Troglodytes troglodytes	Winter Wren	0.00	0.00	0.00	419500.00	402500.00	heard along trail%0A
Winscar Reservoir	SE10L	Winscar Reservoir	05/08/2007 00:00	05/08/2007	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	403000.00	
River Little Don above Lang	SE10		19/06/2007 00:00	19/06/2007	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	405000.00	BTO Habitat Code: A3.18.310: Heard %0Aseveral in wooded section.
River Little Don above Lang	SE10		19/06/2007 00:00	19/06/2007	bird	Phoenicurus phoenicurus	Common Redstart	0.00	0.00	1.00	415000.00	405000.00	BTO Habitat Code: A1.18.310: In oak %0Atree scolding me as I had to be close %0A due to foliage (possible nesting site).
Winscar Reservoir	SE10L	Winscar Reservoir	10/06/2007 00:00	10/06/2007	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	403000.00	
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Anthus pratensis	Meadow Pipit	0.00	0.00	1.00	415000.00	405000.00	
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Pluvialis apricaria	Golden Plover	0.00	0.00	1.00	415000.00	405000.00	
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Alauda arvensis	Skylark	0.00	0.00	1.00	415000.00	405000.00	
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	405000.00	
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	405000.00	
Carlecotes	SE10	Carlecotes	30/05/2007 00:00	30/05/2007	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	405000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	22/05/2007 00:00	22/05/2007	bird	Saxicola rubetra	Whinchat	0.00	0.00	0.00	415000.00	403000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	20/05/2007 00:00	20/05/2007	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	403000.00	
Langsett Moors	SK19	Langsett	01/05/2007 00:00	01/05/2007	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	415000.00	395000.00	drumming, Dog & Partridge
Swinden Plantation	SE1800	Swinden	01/05/2007 00:00	01/05/2007	bird	Phoenicurus phoenicurus	Redstart	0.00	0.00	1.00	418500.00	405000.00	in song
Swinden Plantation	SE1800	Swinden	01/05/2007 00:00	01/05/2007	bird	Carduelis flammaea	Redpoll	0.00	0.00	0.00	418500.00	405000.00	in sng
Swinden Plantation	SE1800	Swinden	01/05/2007 00:00	01/05/2007	bird	Saxicola rubetra	Whinchat	0.00	0.00	0.00	418500.00	405000.00	in song, top track
Winscar Reservoir	SE10L	Winscar Reservoir	30/04/2007 00:00	30/04/2007	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	403000.00	P
Winscar Reservoir	SE10L	Winscar Reservoir	29/04/2007 00:00	29/04/2007	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	403000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	26/04/2007 00:00	26/04/2007	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	403000.00	S
Winscar Reservoir	SE10L	Winscar Reservoir	26/04/2007 00:00	26/04/2007	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	403000.00	P
Winscar Reservoir	SE10L	Winscar Reservoir	26/04/2007 00:00	26/04/2007	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403000.00	P
Winscar Reservoir	SE10L	Winscar Reservoir	26/04/2007 00:00	26/04/2007	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	403000.00	P
Valley of River Little Don at	SE1900		26/04/2007 00:00	26/04/2007	bird	Cinclus cinclus	White-throated Dipper	0.00	0.00	0.00	419500.00	400500.00	downstream, BTO Habitat Code G7.1.10%0A
Winscar Reservoir	SE10L	Winscar Reservoir	24/04/2007 00:00	24/04/2007	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	415000.00	403000.00	S
Winscar Reservoir	SE10L	Winscar Reservoir	15/04/2007 00:00	15/04/2007	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403000.00	
Langsett Reservoir	SE2000	Langsett	13/04/2007 00:00	13/04/2007	bird	Phylloscopus trochilus	Willow Warbler	0.00	0.00	1.00	420500.00	405000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	11/04/2007 00:00	11/04/2007	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	11/04/2007 00:00	11/04/2007	bird	Oenanthe oenanthe	Wheatear	0.00	0.00	0.00	415000.00	403000.00	
Langsett Moors	SK19	Woodhead	09/04/2007 00:00	09/04/2007	bird	Lagopus lagopus	Red Grouse	0.00	0.00	1.00	415000.00	395000.00	
Harden Clough, Snailsden	SE10	Harden Clough	08/04/2007 00:00	08/04/2007	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	405000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	05/04/2007 00:00	05/04/2007	bird	Saxicola torquata	Stonechat	0.00	0.00	1.00	415000.00	403000.00	P
Winscar Reservoir	SE10L	Winscar Reservoir	28/03/2007 00:00	28/03/2007	bird	Haematopus ostralegus	Oystercatcher	0.00	0.00	1.00	415000.00	403000.00	P
farmland west of Flouch In	SE1901	The Flouch	14/03/2007 00:00	14/03/2007	bird	Sturnus vulgaris	Starling	0.00	0.00	1.00	419500.00	401500.00	
Winscar Reservoir	SE10L	Winscar Reservoir	30/01/2007 00:00	30/01/2007	bird	Cairina moschata	Muscovy Duck				415000.00	403000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	06/01/2007 00:00	06/01/2007	bird	Asio flammeus	Short-eared Owl	0.00	0.00	1.00	415000.00	403000.00	
Winscar Reservoir	SE10L	Winscar Reservoir	08/06/2006 00:00	08/06/2006	bird	Actitis hypoleucos	Common Sandpiper	0.00	0.00	0.00	415000.00	403000.00	
Winscar Reservoir	SE10L	Broad Hill Bank	12/05/2006 00:00	12/05/2006	bird	Asio flammeus	Short-eared Owl	0.00	0.00	1.00	415000.00	403000.00	
Winscar Reservoir	SE1503	Overflow	04/10/2005 00:00	04/10/2005	bird	Aegithalos caudatus	Long-Tailed Tit	0.00	0.00	0.00	415500.00	403500.00	
Winscar Reservoir	SE1503	Overflow	04/10/2005 00:00	04/10/2005	bird	Picus viridis	Green Woodpecker	0.00	0.00	1.00	415500.00	403500.00	
Whitley Edge LWS	SE1804	Whitley Edge 2	01/01/2005 00:00	01/01/2005	bird	Gallinago gallinago	Snipe	0.00	0.00	1.00	418500.00	404500.00	breeding
Wogden Foot LWS	SE1702	Wogden Foot 50	01/01/2005 00:00	01/01/2005	bird	Prunella modularis	Duncock	0.00	0.00	1.00	417500.00	402500.00	breeding
Wogden Foot LWS	SE1702	Wogden Foot 50	01/01/2005 00:00	01/01/2005	bird	Carduelis cannabina	Linnets	0.00	0.00	1.00	417500.00	402500.00	breeding
Wogden Foot LWS	SE1702	Wogden Foot 50	01/01/2005 00:00	01/01/2005	bird	Turdus philomelos	Song Thrush	0.00	0.00	1.00	417500.00	402500.00	breeding
Wogden Foot LWS	SE1702	Wogden Foot 50	01/01/2005 00:00	01/01/2005	bird	Pyrhula pyrhhula	Bullfinch	0.00	0.00	1.00	417500.00	402500.00	breeding
Wogden Foot LWS	SE1702	Wogden Foot 50	01/01/2005 00:00	01/01/2005	bird	Parus montanus	Willow Tit	0.00	0.00	1.00	417500.00	402500.00	breeding
Wogden Foot LWS	SE1702	Wogden Foot 50	01/01/2005 00:00	01/01/2005	bird	Carduelis flammaea	Redpoll	0.00	0.00	0.00	417500.00	402500.00	breeding
Western Moors LWS	SE10	Broad Clough	22/04/2015 00:00	22/04/2015	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	very colourful male in wet flush
Western Moors LWS	SE10	Lady Shaw	22/04/2015 00:00	22/04/2015	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	spawn and tadpoles in moorland pool
Wogden Foot LWS	SE1702	Pond	11/04/2015 00:00	11/04/2015	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	417500.00	402500.00	
Wogden Foot LWS	SE1702	Pond	11/04/2015 00:00	11/04/2015	amphibian	Bufo bufo	Common Toad	1.00	1.00	0.00	417500.00	402500.00	
Western Moors LWS	SE10	Langsett Woods	22/07/2014 00:00	22/07/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	Juvenile in ditch along track.
Western Moors LWS	SE10	Windleden Edge	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Western Moors LWS	SE10	Windle Edge	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Western Moors LWS	SE10	Bare Bones Road	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Western Moors LWS	SE10	Dunford Road	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Western Moors LWS	SE10	Windle Edge	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Western Moors LWS	SE10	Dunford Road	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Western Moors LWS	SE10	Little Moor	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Western Moors LWS	SE10	Winscar Reservoir	27/06/2014 00:00	27/06/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	several on road on wet night
Wogden Foot LWS	SE1702	Middle section	24/03/2014 00:00	24/03/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	417500.00	402500.00	Masses of spawn at western end of pond.

Western Moors LWS	SE10	Broad Hill Bank	10/03/2014 00:00	10/03/2014	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	415000.00	405000.00	Spawning in roadside ditch.
Dunford Bridge	SE1602	TPT	06/07/2013 00:00	06/07/2013	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	416500.00	402500.00	
Western Moors LWS	SE10	Snailsden	06/07/2013 00:00	06/07/2013	amphibian	Bufo bufo	Common Toad	1.00	1.00	0.00	415000.00	405000.00	dead on road
Wogden Foot LWS	SE1702	Wogden Foot BLWS	06/07/2013 00:00	06/07/2013	amphibian	Rana temporaria	Common Frog	0.00	1.00	0.00	417500.00	402500.00	
Western Moors LWS	SE10	Snailsden Reservoir	06/07/2013 00:00	06/07/2013	amphibian	Bufo bufo	Common Toad	1.00	1.00	0.00	415000.00	405000.00	group calling on res edge
Western Moors LWS	SE10		05/07/2013 00:00	05/07/2013	amphibian	Bufo bufo	Common Toad	1.00	1.00	0.00	415000.00	405000.00	adult live on road at night
Western Moors LWS	SE10		05/07/2013 00:00	05/07/2013	amphibian	Bufo bufo	Common Toad	1.00	1.00	0.00	415000.00	405000.00	dead on road

Site Name: Western Moors Parish: Dunford and Langsett

Grid Reference: SE 150020 (Centre of site) Area: 3404 ha

SITE DESCRIPTION

The Western Moors is a large expanse of upland, part of the South Pennines, including land within the Peak District National Park. Approximately two thirds of the site now also lies within the Eastern Peak District Moors Site of Special Scientific Interest (SSSI) and the Peak District Moors Special Protection Area (SPA) (classified on the 30th November 2000). The western and southern boundaries are the district boundaries within the upland area. The other Natural Heritage Site boundaries define the area of upland and in-bye rough grassland. The majority of the site consists of unenclosed land. The site map shows both the SSSI and Natural Heritage Site Boundaries.

The site includes Snailsden, Winscar, Harden, Windleden and part of Langsett Reservoirs. The following description is based on the survey undertaken in 1990/1. The range of habitats on the site include large areas of heather (Calluna vulgaris) moorland with bilberry (Vaccinium myrtillus) and locally abundant cloudberry (Rubus chamaemorus), a rare plant in the district. Bilberry is found with purple moor-grass (Molinia caerulea) and mat-grass (Nardus stricta) over some areas and bracken (Pteridium aquilinum) forms monospecific stands in patches on the moorland. A number of cloughs dissect the upland and it is mainly in these areas that species-rich acidic flushes occur dominated by Sphagnum species with cranberry (Vaccinium oxycoccus) and cross-leaved heath (Erica tetralix) and a variety of herbs and sedges. The wetter areas on the clough tops may be dominated by cotton-grass (Eriophorum vaginatum) over a carpet of Sphagnum species.

Areas of woodland are found around the reservoirs and these are largely conifer plantations. Around the moorland edge as the land slopes away from the upland blanket bog fields of rough grassland dominated by mat-grass and wavy hair-grass (Deschampsia flexuosa) are found.

Within this large block of upland there are several areas of particular note for their botanical interest and these are described below;-

Fox Clough is located west of Langsett Reservoir. A small acidic flush beside the stream contains cranberry, star sedge (Carex echinata) and cross-leaved heath growing through a carpet of Sphagnum species. The bank of the stream supports hard-fern (Blechnum spicant) and mountain fern (Oreopteris limbosperma).

Loftshaw and Hordron Clough is located south of Fox Clough and contains Loftshaw Brook which flows into the Little Don River. In the lower reaches of the clough are several acidic flushes of cotton-grass, rush (Juncus species), Polytrichum commune and Sphagnum species. Cowberry (Vaccinium vitis-idaea) is common on Harden Moor south of the clough. East of a footbridge over the brook is a flat area of species-rich marshy grassland with acidic

flushes on the bank above. The species found here include marsh willow-herb (Epilobium palustre), lesser spearwort (Ranunculus flammula), pennywort (Hydrocotyle vulgaris), marsh violet (Viola palustris) and self-heal (Prunella vulgaris) with mat-grass, jointed rush (Juncus articulatus), star sedge, yellow sedge (Carex demissa) and Myosotis Stolonifera (M. Brevifolia), a nationally scarce plant.

In Loftshaw Clough mat-grass dominates the valley bottom with patches of Sphagnum bog. Some areas have few species and others are more species-rich. Sundew (Drosera rotundifolia), a rare plant in the district, is found at one site growing at Sphagnum with common tormentil (Potentilla erecta), marsh violet, cotton-grass and soft rush (Juncus effusus) and an area of bottle sedge (Carex rostrata).

Grip Hill Slack at the south-west end of Winscar Reservoir is a rush-dominated bog with Sphagnum species and other mosses. The flat area at the bottom of the slope is rich in herbs including marsh violet, wood-sorrel (Oxalis acetosella) (under bracken), pennywort, greater bird's-foot trefoil (Lotus uliginosus), marsh willow-herb, marsh thistle (Cirsium palustre), cranberry and round-leaved crowfoot (Ranunculus omiophyllus). The slope above the mire area is a mosaic of bracken, mat-grass and soft rush with bilberry, wavy hair-grass, heath bedstraw (Galium saxatile) and common tormentil.

Swiner Clough Top is located west of Winscar Reservoir. The top end of this valley is dominated by cotton-grass growing on a floating Sphagnum bog. Lower down the streamside is dominated by rush species with some cross-leaved heath. An old quarry beside the stream contains hard-fern, buckler-fern (Dryopteris dilatata) and rose-bay willow-herb (Chamerion angustifolium).

Wogden Clough is located between Lower Windleden and Langsett Reservoirs. Wogden Dyke flows down the clough which is cut through an area of bell heather (Erica cinerea) moorland with occasional areas of bilberry and cross-leaved heath. Around the stream are occasional patches of Sphagnum species with Polytrichum commune, heath bedstraw, soft rush and conglomerate rush (Juncus conglomeratus). Bracken is scattered throughout the clough. The clough has steep sides with a dominant vegetation of bell-heather and bracken and heath bedstraw. Rush species, Sphagnum species and mat-grass are found in the clough bottom. Areas of greater species diversity include pennywort, cotton-grass and bilberry.

The breeding bird assemblage of these moors forms part of the nationally and internationally important South Pennine moorlands. Characteristic and important species are golden plover, curlew, dunlin, merlin, ring ousel, twite and short-eared owl all Birds of conservation Concern, and red grouse.. Other significant breeding species include lapwing, redshank, cuckoo, whinchat (a UK BAP Long List species) and wheatear. The streams and waterbodies of the site support a characteristic range of breeding species such as dipper, grey wagtail (a UK BAP Long List species), common sandpiper, teal, canada goose and mallard. Native broadleaved woodland in the cloughs and moorland edge has a characteristic bird fauna including redstart, tree pipit, willow warbler and occasional pied flycatcher and wood

warbler. Conifer plantations and scattered pines and larch support additional interesting breeding species such as crossbill, siskin, goldcrest and coal tit. Goshawk and sparrowhawk forage over the site.

In winter the moors and moorland edge habitats support species such as short-eared owl, peregrine, hen harrier, redwing, fieldfare and brambling. Occasional, unusual and long-staying visitors include rough-legged buzzard, stonechat and parrot crossbill. On the reservoirs small numbers of wildfowl winter, including mallard, teal, goldeneye, tufted duck and goosander.

A wide range of species use the area on passage including waders, wildfowl, passerines and raptors. Some of these, for instance raven and buzzard, have the potential to recolonise the area in the future.

The moorlands support a characteristic range of other fauna. Interesting mammals include mountain hare and roe deer. The site also supported a population of red squirrel (UK BAP Long List species) however this species has undergone a dramatic decline and is possibly extinct in this area. Common lizards have their main areas of population in the district on the moorlands. Breeding frogs and toads are well represented on the site.

Important invertebrates include colonies of green hairstreak butterfly and emperor moth. The site supports a great diversity of invertebrate life.

SITE EVALUATION

Criteria

Size: The Western Moors is the largest area of land with a significant nature conservation interest in Barnsley. The site includes all the upland area within the district. The greatest density of common lizards in the district is found on this site.

Diversity: The site includes a diversity of upland habitats and associated plants, from heather and bell-heather moorland, cotton-grass bog, acidic flushes and mixed areas of bracken, heather and grasses to rough grazing land, woodland and several areas of open water. There is a great diversity of fauna present on the site including a large range of breeding, wintering and passage birds, mammals, reptiles, amphibians and invertebrates. The site supports a range of breeding birds characteristic of upland moorland.

Naturalness: The heather moorland in some parts is managed for grouse and the heather burnt on a rotational management cycle. This area if used as water catchment and some management may be associated with this function. The rough grassland and moorland may be grazed. The reservoirs are man-made and the woodland areas largely of planted origin, with the exception of clough woodland.

Rarity: This is the only upland site in Barnsley. The site supports several species of restricted distribution in Barnsley including Drosera rotundifolia and Rubus chamaemorus. Myosotis Stolonifera occurs in 88 10 x 10 km squares in Britain (*Botanical Atlas of the British Isles* 2002). This is a northern plant and the record is the southernmost location for this plant in the country. The site is the only location in Barnsley for acidic flushes.

Red squirrel are fully protected under Schedule 5 of the Wildlife and Countryside Act as amended). It is also listed in Appendix iii) of the Bern Convention. It is a vulnerable species in England whose population is believed to be declining (UK BAP Short List 1995) and may now be extinct in the Western Moors. The South Pennines area is the only locality in Yorkshire for mountain hare (UK BAP Long List 1995) and this is the only site in Barnsley for this species.

Green hairstreak butterfly is regarded as a species which has experienced substantial declines in its populations in parts of all regions of the country (NCC, 1989). but whose British range is now considered to be stable (*Millennium Atlas of Butterflies in Britain and Ireland* 2001). It is, however, vulnerable to overgrazing and have been some losses in the eastern edges of its range

As part of the South Pennine moorlands the site supports significant numbers of merlin, golden plover, and short-eared owl. The numbers of breeding merlin, golden plover and short-eared owl means that part of the Western Moors qualifies as a Special Protection Area under article 4.1 of Directive 70/409/EEC. The site supports a rich upland breeding bird assemblage which includes important numbers of peregrine, lapwing, dunlin, snipe, curlew, redshank, common sandpiper, whinchat, wheatear, ring ouzel and twite.

Fragility: The moorland is vulnerable to a variety of impacts. Overgrazing by sheep can lead to a change in vegetation composition whereby heath communities are replaced by grasses. Uncontrolled fires can damage vegetation and if severe, can help to initiate erosion of the underlying peat. The moorlands, located in a major industrial part of the country, have suffered from a long history of pollution and acid deposition. Drainage of the land can alter moorland vegetation communities and afforestation can be detrimental to the breeding bird interest. Bracken is spreading over the moorland and may threaten the moorland vegetation. The breeding bird populations mentioned above, at the southernmost edge of their range, are particularly susceptible to environmental change (Brown and Shepherd, 1991).

Typicalness: The site shows a range of typical, good quality upland habitats including heather moorland, cotton-grass bog and acidic flushes each with their characteristic plant species. The ranges of breeding, wintering and passage birds and other fauna present on the site are characteristic of moorland animal communities.

Evaluation of important features

<u>Site Feature</u>	<u>Importance</u>				
	<u>International</u>	<u>National</u>	<u>County</u>	<u>District</u>	
1. Habitat type					
Woodland					Low
Heather moorland	High				
Tall herb (bracken)					Low
Grassland					Low
Acidic flushes					High
Open water					Low
2. Species	<u>International</u>	<u>National</u>	<u>County</u>	<u>District</u>	
<u>Myosotis Stolonifera</u>		High			
<u>Drosera rotundifolia</u>					High
<u>Rubus chamaemorus</u>					High
Breeding birds	High	High			
Wintering birds					High
Passage birds					High
Mountain hare			High		
Red squirrel		High*			
Green hairstreak		Average	High		
Other invertebrates					High

* Requires verification survey to confirm current status

Existing site designations: ESA, National Park, SSSI and SPA (Part). NHS, Part ASNW.

Site justifications: The Western Moors is the largest site of nature conservation interest in Barnsley. It includes a range of good quality upland habitats with characteristic species including Myosotis stolonifera, Drosera rotundifolia and Rubus chamaemorus, plants which are rare in Barnsley. The breeding bird assemblage on the site forms an integral part of the

internationally important South Pennine moorlands. Wintering and passage birds add to the site's value. The area supports populations of other scarce and characteristic moorland fauna such as mountain hare and green hairstreak butterfly.

Barnsley Biodiversity Action Plan

HAP 11 Upland Heathland

HAP 12 Rush Pasture

HAP 15 Running Water

HAP 16 Standing Water

SAP 1 Brown Hare (Mountain Hare)

SAP 11 Twite

FLS 3 Lapwing

SITE MANAGEMENT

Management objective:

To maintain and enhance the existing upland communities.

Initial Management:

Ongoing management:

Encourage continued attempts to control bracken.
Encourage management of heather for grouse so that a range of ages and heights of heather exist, to provide food and shelter for moorland wildlife.
Monitor levels of grazing on the moorland area and attempt to keep them at or below the recommended stocking levels for the preservation of heather moorland.
Discourage improvement of rough grassland areas on the edge of the moorland.

Constraints:

Difficulty in controlling grazing numbers. Consider use of management agreements if necessary.
Liaison with FWAG over agricultural practices.

Opportunities:

ESA grant mechanisms for sympathetic management of agricultural land.

SITE CONSTRAINTS AND OPPORTUNITIES

Constraints:

Operational use of land as water catchment.
Potential conflict between protection of special interest and some people's wish for unrestricted access to open land. Part of site is designated Access Land, as shown on the OS 1:25 000 map and may be affected by the implementation of the Countryside and Rights of Way Act 2000. Yorkshire Water have duties to further both recreation and conservation.

Opportunities:

Involvement in site by National Park Rangers Service.
DEFRA EIA Regulations may apply.
Part protected by the Habitats Regulations 1994.

REVIEW OF BARNSELY NHS SITES – FEBRUARY/MARCH 2003

Western Moors

1. Site Boundaries

The review of site boundaries undertaken in March 2003 was restricted to the areas which lie outside the SSSI boundary. The site boundaries, as shown on the 1990 Survey Map, and excluding the SSSI boundaries, were confirmed as being correct, both from a visual survey from roads and by walking to more distant areas inaccessible from roads. It may be worth considering the extension of the fringes of the site to include of all inbye pastures which regularly support breeding snipe and curlew. This would require detailed breeding bird survey information.

2. Main Habitat Components

As far as could be ascertained the main habitat components, as shown on the 1990 Habitat Map, were confirmed as being correct, with the exception of a small area of improved grassland on the 1990 map, which is now semi-improved neutral grassland.

3. Habitat Change/Loss

As far as could be ascertained, there was no perceptible or identifiable change or loss of habitat.

4. Notable/Rare Species

This large site reportedly contains considerable rarity value in terms of plants, mammals, birds and invertebrates. None of the various species listed was seen during the 2003 Survey, and it is suggested that it would be beneficial to carry out a resurvey to check the current status of all the rare species mentioned. Of the plants, both Rubus chamaemorus and Myosotis stolonifera (M. Brevifolia) are very scarce in the Southern Pennines and Barnsley District probably holds a major proportion of the South Yorkshire populations of both species. Drosera rotundifolia is more widespread, but still local.

5. Potential Threats

None as far as could be seen.



50. Wogden Foot

LWS Assessment and Phase 1 Survey

Prepared by
TEP

for

Barnsley Metropolitan Borough Council

January 2011
(Edited December 2011)

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Warrington
WA3 7BH

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Site Name:	Wogden Foot
Site Area:	10.41ha
Survey Date:	September 2010
Nearest Settlement:	Carlecoates (north), Dunford Bridge (west)
Grid Reference at Centre:	SE17746, 02622
Surveyor(s)	LAC, PG, VG

Site Description:

This is a narrow strip of land that was formerly occupied by sidings on the Woodhead railway line that linked Manchester to Sheffield. The railway closed down in 1981 and the former track-bed now forms the route of a section of the Trans-Pennine Trail which forms the south boundary of the site. The north boundary follows the course of the River Don. This part of the upper Don valley lies over millstone grit and the area is acidic in character, with upland-fringe pasture on the south-facing slopes north of the Don and extensive heathland all around Wogden Clough lying south of the old railway.

After the sidings were dismantled, the site was unmanaged for some time, allowing the processes of natural regeneration to take place. However, not all of the vegetation is typically acidic in character, as much of the limestone ballast used for the sidings remained. It appears that some plant propagules were imported into this millstone grit area from the limestone habitat around the ballast quarries, so that a small suite of plants atypical of this acid area still survives including, for example, cowslip (*Primula veris*), ploughman's spikenard (*Inula conyza*) and wild marjoram (*Origanum vulgare*). The addition of large amounts of lime into this otherwise acidic situation have resulted in a broadly neutral sward, with some elements from both acidic and limestone grassland habitats. However the grassland elements of the vegetation development, including the lime-loving species would naturally disappear if succession into scrub/woodland was allowed to proceed.

Management has been put into place here, with stock fencing erected and grazing management put into effect. The site was grazed by a small flock of Herdwick sheep at the time of the 2010 visit. The main footpath along the southern edge of the site is fenced off, but there is visibility into the site with access via gates and stiles.

The site is still very scrubby in character, a complex of grassland and scrub growth, but the former flat sidings now have a complex micro-topography with a series of hummocks where ballast has been formed into mounds, becoming more uniformly flat to the eastern end.

A couple of shallow scrapes have been excavated, introducing a minor element of water habitat into the site.

Important Species:

The mix of acidic, neutral and calcareous grassland habitats and species present on site, are brought about by the addition of limestone ballast (originating from the adjacent dismantled railway) to this naturally acidic environment. This provides an area of biodiversity interest that is unusual in the Borough.

UKBAP breeding bird species include lesser redpoll (*Carduelis cabaret*), linnet (*Carduelis cannabina*), bullfinch (*Pyrrhula pyrrhula*), willow tit (*Poecile Montana*), spotted flycatcher (*Muscicapa striata*), dunnock (*Prunella modularis*) and song thrush (*Turdus philomelos*).

Target Note:	TN1	
Habitat:	Modified neutral grassland	
Species List:		
Scientific Name	Common Name	Frequency
<i>Festuca rubra</i>	Red Fescue	A
<i>Agrostis capillaris</i>	Common Bent	F
<i>Centaurea nigra</i>	Knapweed	F
<i>Dactylis glomerata</i>	Cock's-foot	F
<i>Holcus lanatus</i>	Yorkshire-fog	F
<i>Pilosella officinarum</i>	Mouse-ear Hawkweed	F
<i>Plantago lanceolata</i>	Ribwort Plantain	F
<i>Potentilla reptans</i>	Creeping Cinquefoil	F
<i>Rhytiadelphus squarrosus</i>	Moss species	F
<i>Trifolium repens</i>	White Clover	F
<i>Agrostis stolonifera</i>	Creeping Bent	O
<i>Arrhenatherum elatius</i>	False Oat-grass	O
<i>Cerastium fontanum</i>	Common Mouse-ear	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O
<i>Fragaria vesca</i>	Wild Strawberry	O
<i>Hypericum perforatum</i>	Perforate St John's-wort	O
<i>Hypochaeris radicata</i>	Common Cat's-ear	O
<i>Leucanthemum vulgare</i>	Oxeye daisy	O
<i>Lotus corniculatus</i>	Bird's-foot Trefoil	O
<i>Medicago lupulina</i>	Black Medick	O
<i>Poa trivialis</i>	Rough Meadow-grass	O
<i>Prunella vulgaris</i>	Selfheal	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Taraxacum officinale</i> agg.	Dandelion	O
<i>Urtica dioica</i>	Nettle	O
<i>Bellis perennis</i>	Daisy	R
<i>Campanula rotundifolia</i>	Harebell	R
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	R
<i>Carex demissa</i>	Yellow-sedge	R
<i>Centaureum erythraea</i>	Common Centaury	R
<i>Clinopodium vulgare</i>	Wild Basil	R
<i>Crataegus monogyna</i>	Hawthorn	R
<i>Cynosurus cristatus</i>	Crested Dog's-tail	R
<i>Dactylorhiza</i> sp.	Marsh-orchid	R
<i>Dipsacus fullonum</i>	Teasel	R
<i>Euphrasia</i> sp.	Eyebright species	R
<i>Galium verum</i>	Lady's Bedstraw	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Inula conyza</i>	Ploughman's-spikenard	R
<i>Juncus inflexus</i>	Hard Rush	R
<i>Lathyrus pratensis</i>	Meadow Vetchling	R
<i>Linaria vulgaris</i>	Common Toadflax	R
<i>Linum catharticum</i>	Purging Flax	R
<i>Origanum vulgare</i>	Marjoram	R
<i>Peltigera</i> sp	Dog Lichen	R
<i>Picris echioides</i>	Bristly Oxtongue	R
<i>Polygonum aviculare</i>	Knotgrass	R
<i>Primula veris</i>	Cowslip	R
<i>Reseda luteola</i>	Weld	R
<i>Rumex crispus</i>	Curled Dock	R
<i>Sagina procumbens</i>	Procumbent Pearlwort	R
<i>Salix cinerea</i>	Grey Willow	R
<i>Senecio erucifolius</i>	Hoary Ragwort	R

<i>Senecio jacobaea</i>	Ragwort	R
<i>Tanacetum vulgare</i>	Tansy	R
<i>Teucrium scorodonium</i>	Woodsage	R
<i>Trifolium dubium</i>	Lesser Trefoil	R
<i>Verbascum thapsus</i>	Common Mullein	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Target Note:	TN2	
Habitat:	Continuous scrub, scattered trees	
Species List:		
Scientific Name	Common Name	Frequency
<i>Salix caprea</i>	Goat Willow	D
<i>Rubus fruticosus agg.</i>	Bramble	A
<i>Urtica dioica</i>	Nettle	A
<i>Betula pendula</i>	Silver Birch	O
<i>Betula pubescens</i>	Downy Birch	O
<i>Chamerion angustifolium</i>	Rosebay Willowherb	O
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O
<i>Festuca rubra</i>	Red Fescue	O
<i>Geranium robertianum</i>	Herb-Robert	O
<i>Moss sp.</i>	Moss species	O
<i>Poa annua</i>	Annual Meadow-grass	O
<i>Ranunculus repens</i>	Creeping Buttercup	O
<i>Stellaria media</i>	Chickweed	O
<i>Acer pseudoplatanus</i>	Sycamore	R
<i>Alnus glutinosa</i>	Alder	R
<i>Hypericum perforatum</i>	Perforate St John's-wort	R
<i>Myosotis sp.</i>	Forget-me-not species	R
<i>Peltigera sp.</i>	Dog-lichen species	R
<i>Potentilla reptans</i>	Creeping Cinquefoil	R
<i>Sambucus nigra</i>	Elder	R
<i>Sorbus aria</i>	Whitebeam	R
<i>Sorbus aucuparia</i>	Rowan	R
<i>Stachys sylvatica</i>	Hedge Woundwort	R
<i>Teucrium scorodonium</i>	Woodsage	R
<i>Trifolium repens</i>	White Clover	R

D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

Management Issues:

The site has been fairly recently fenced and gated under the auspices of the Coalfield Heathland Project that, in this instance, aims to halt natural succession to a total cover of scrub/woodland by use of grazing by traditional upland breeds such as Herdwick sheep and Dexter cattle. Use of grazing should preserve some of the limestone species that have established due to the importation of limestone ballast into this acidic area, retaining both the species and structural diversity of this site.

Diversity:

Overall, 74 species of vascular plants were noted from this strip of land in September 2010, comprising a mix of acid-tolerant species native to the area and limestone plants probably introduced with the ballast from quarries. This introduction most likely originates from Derbyshire, as some of the limestone species on the site are only rarely found in the Barnsley area.

Tree and scrub growth, though dense in places, is still in a fairly early stage of

development and structural diversity within the site will increase as woodlands develop and the grazing produces a mature sward.

Naturalness:

The areas outside the grazing enclosures will continue to illustrate the processes of natural succession, as woodland develops from the naturally establishing scrub.

The grasslands can only survive in the long-term with management; in the absence of native grazing animals, use of domesticated grazing stock replicates the natural processes of grassland maintenance.

Whilst the additional limestone element increases the diversity of species here, it cannot be said to be a natural feature. It does, however, provide an example of one of the effects that human impacts can have on habitats.

Rare or Exceptional Features:

The limestone ballast is a physical reminder of the site's former use as a railway siding, as well as providing the correct conditions for a wider range of plant species than might otherwise occur here.

Fragility:

Flower-rich grazed swards are not yet fully established, but they will be if grazing continues. In the future the grasslands will revert to scrub if there is no long-term grazing management.

Typicalness:

The acid elements of this site are typical of land on millstone grit that has been disturbed by past industrial uses; however, the addition of limestone brings in elements from outside the Barnsley area.

Recorded History & Cultural Associations:

The history of the railway system in and around Barnsley is well documented and the flattened area of the former sidings can still be discerned, despite the piled up mounds of railway ballast.

Connectivity within the Landscape:

This site is strongly linked with the major footpath, bridleway and cycleway running east/west along its southern boundary.

The River Don flows immediately to the north (just north of the site boundary) but is not discernible from the site as a strip of scrub/woodland blocks all view of it and fencing blocks physical access for human visitors. However, the river provides a major east/west wildlife corridor adjacent to the site.

Just south of the former railway, the landscape changes to extensive heather moorland, in inclement weather the site may well provide sheltered conditions for species moving down from the tops.

Value for Appreciation of Nature and Learning:

This site is quite remote from habitation and there are no schools within in easy reach. However, the Trans-Pennine Trail runs along the south boundary, made readily accessible via the large car park laid out at Dunford Bridge, about 1.5km to the west. There are no public rights of way linking north to south, across the Don

valley, at this point.

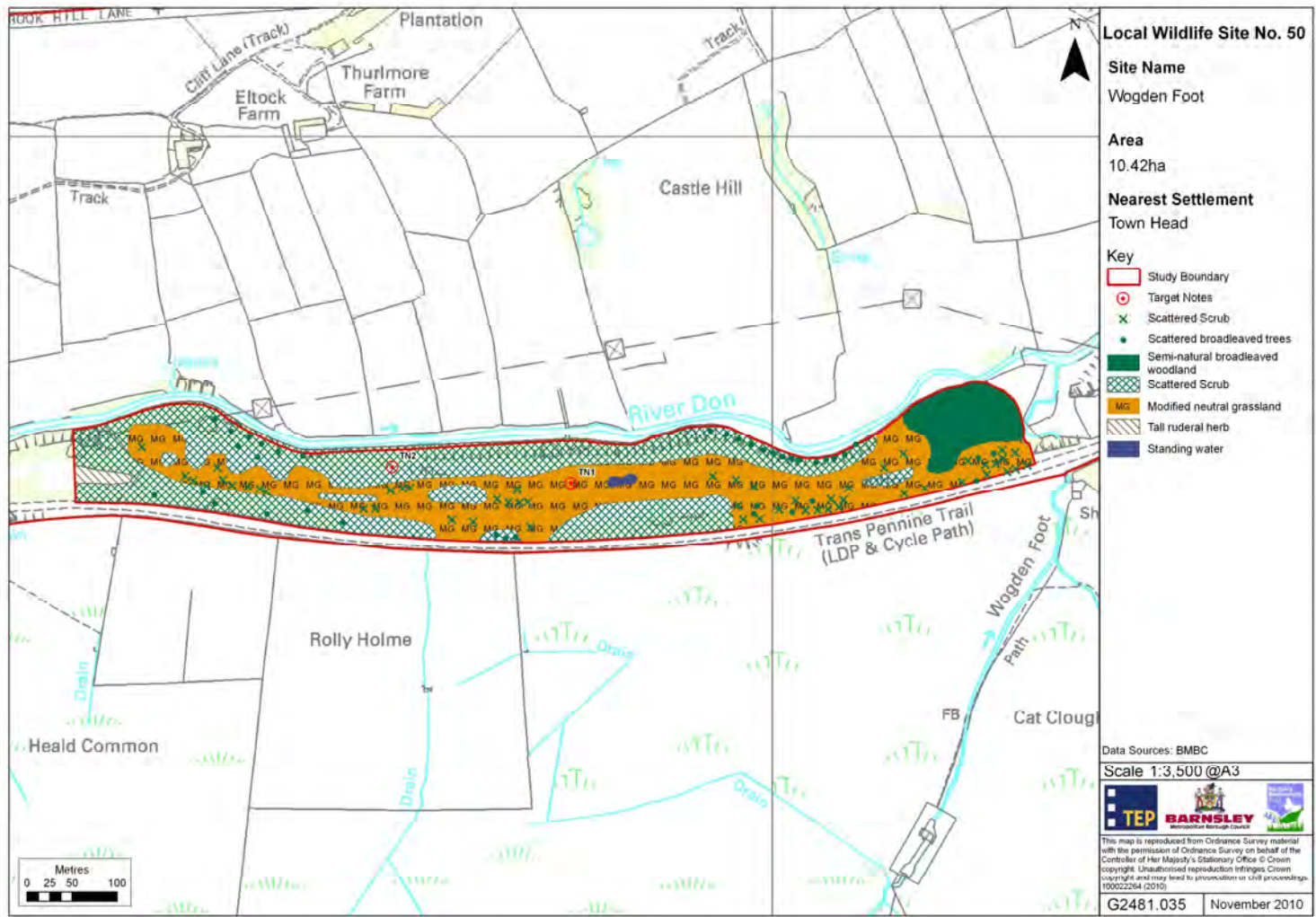
Ready access to the site from the main footpath makes it very suitable for interpreting various aspects of ecological processes and makes an additional feature along the trail. The site has well-designed and informative interpretive boards, outlining aspects of industrial history, local geology and wildlife and current management aims and processes.

Recommendations:

This site has an interesting mix of flora as a result of the limestone ballast from its former use. It also has an educational value and is located adjacent to the Trans-Pennine Trail and River Don corridor. In consideration of these facts, it is clear that this site is important not only for the Borough's biodiversity but also for its communities and visitors. It is on these grounds that this site should be retained as a Local Wildlife Site.

Action:

Retain as a Local Wildlife Site
Continue to provide interpretation and access



Wogden Foot

Welcome to Wogden Foot, a place which used to be noisy railway sidings on the Woodhead route connecting Manchester, Sheffield and Penistone. Since the railway closed in 1981 the site has developed into an important habitat for wildlife supporting some uncommon and unusual species.

Wogden Foot lies on Millstone Grit and is sandwiched between the moors of the Peak District National Park to the south and the Upper Don River and agricultural fields to the north. The soils overlying the Millstone Grit are naturally acidic and nutrient poor suiting species such as heather and wavy-hair grass.

However, there are some less acidic areas, a legacy of the limestone railway ballast that was dumped on the site after the line closure. This has led to some plants being found on site that are normally found on alkaline limestone to the east of Barnsley. Some unexpected species you may find on the limestone mounds include

tansy, mouse-ear hawkweed and wild strawberry.

In the summer there are spectacular displays of colour from a wide range of wildflowers.



Cowslips

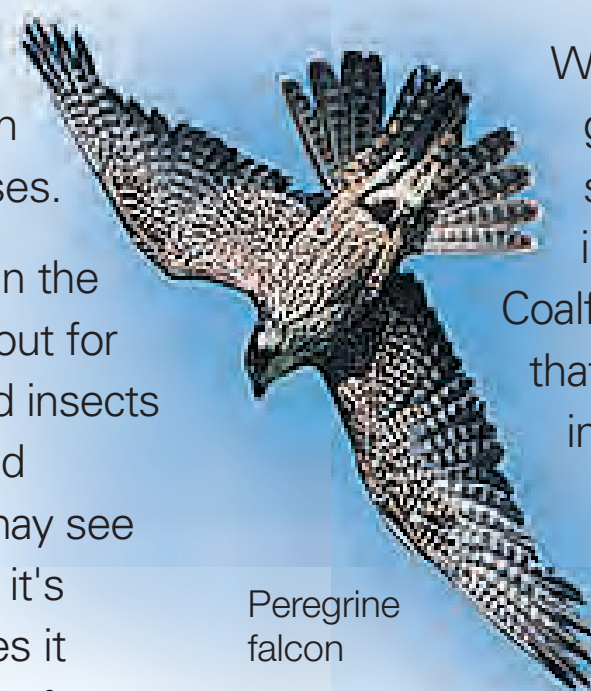
Keep your eyes open for wild mignonette, cowslips and bird's-foot trefoil, which is also known as 'eggs and bacon' for its yellow and red flowers.

The wildflowers attract butterflies such as common blue and meadow brown, which can be seen flitting through the flowers and grasses.

Birds and other animals find food and shelter in the developing scrub, woodland and heath. Look out for bullfinch and tree pipit searching for seeds and insects and ground-nesting birds such as pheasant and skylark. If you keep your eyes skyward you may see a curlew with its long, curved beak. However, it's haunting call vividly evocative of the wild places it inhabits, is likely to indicate its presence long before the bird is visible. And if you're really lucky, you'll spot a peregrine falcon – the fastest creature in the world, reaching over 200mph in the 'stoop', its hunting dive.



Meadow brown butterfly on knapweed



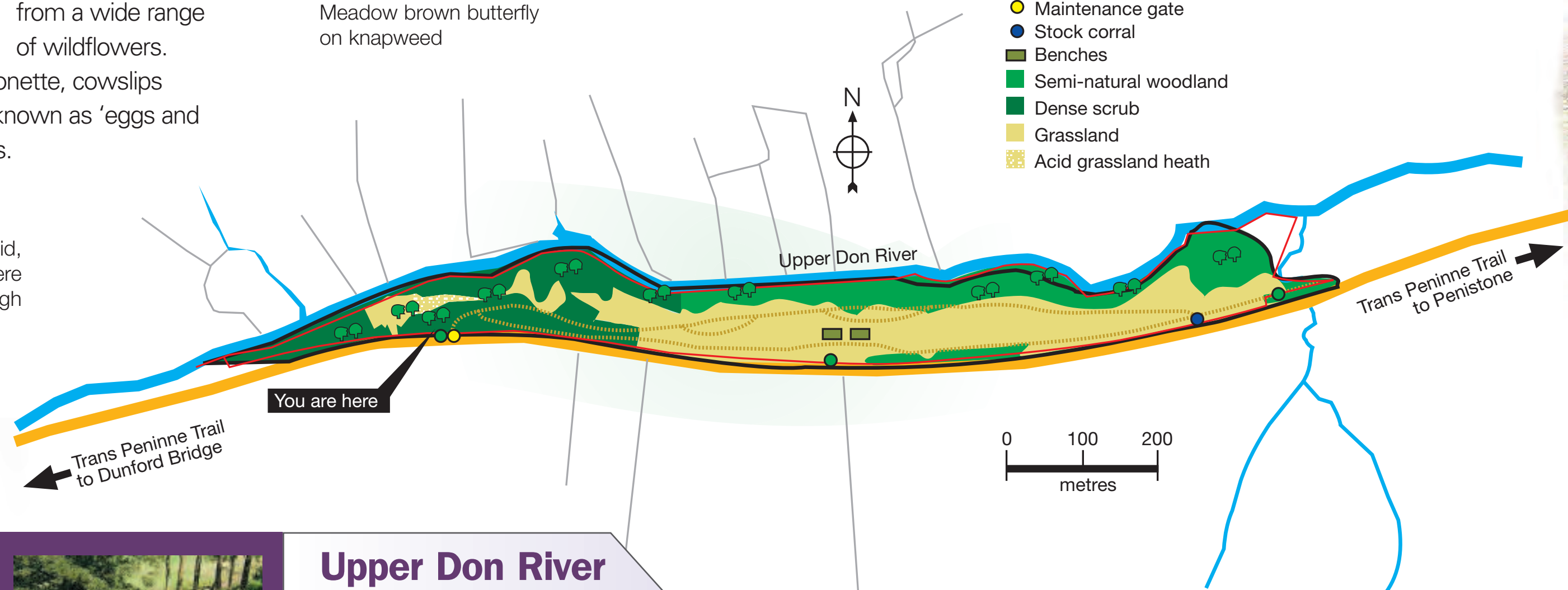
Peregrine falcon

Without management, the species-rich grasslands will eventually disappear, slowly turning into scrub then woodland in a process called 'succession'. The Coalfield Heathland Project aims to control that process by cutting down scrub and introducing grazing.

Traditional breeds of cattle and sheep will graze on Wogden Foot during the spring and summer months. Grazing will help to keep the soils low in

nutrients and create a more varied structure in the grassland, heath and scrub. This will encourage the wildflowers to spread and improve conditions for other wildlife.

- Key
- Site boundary
 - Fence
 - Track
 - Trans Peninne Trail
 - Pedestrian gate
 - Maintenance gate
 - Stock corral
 - Benches
 - Semi-natural woodland
 - Dense scrub
 - Grassland
 - Acid grassland heath



Upper Don River

The Upper Don River flows through the Penistone District from its source just beyond Winscar Reservoir at Dunford Bridge to its confluence with the Little Don, or Porter, at Deepcar, a distance of 15 miles. All too often rivers remain invisible to travellers who only encounter them at bridges. The Upper Don runs parallel with Wogden Foot and the Trans Pennine Trail until it reaches Oxspring where the trail splits and the river start to meander.

The waters of the Don have been used to power many mills along its length. Bullhouse Corn Mill is the one nearest the source and which still survives today as workshops. The Upper Don has an industrial history and because of this it was polluted to such an extent that many parts were deserted by the fish and wildlife. Now however the river is much cleaner and fish and wildlife are in abundance along its length.



Common blue butterfly on bird's-foot trefoil, it's favourite food

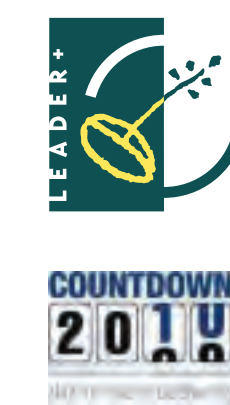
Wogden Foot is owned by Barnsley Metropolitan Borough Council and managed in partnership with the Coalfield Heathland Project.



Dexter cow, one of the traditional breeds that will graze Wogden Foot

Taking Care

- No motor vehicles
- Guard against fire
- Dogs to be kept on a short lead
- If cattle become agitated by dogs and crowd around you- let go of the dog
- Take litter home



Supported through Defra's Aggregates Levy Sustainability Fund Grant Scheme



The Coalfield Heathland Project

Reconnecting people with their natural heritage

Lowland heathland is an internationally rare habitat in need of protection. In the Yorkshire coalfield region it is found in small pockets, interspersed with woodlands, wetlands and commons to make a unique mosaic of habitats for wildlife.

The Coalfield Heathland Project is working to improve the condition of heathlands and maintain them in the long term to ensure they are a valuable resource both for wildlife and for the communities in the towns and cities surrounding them.

The project aims to restore and recreate over 300 hectares of heathland over six years. If you would like to get involved or give us your views please contact:

The Coalfield Heathland Community Wildlife Ranger, Tel: 0114 263 4335

Email: j.ward@wildsheffield.com



Produced by Adrian Bury Associates 01937 590541 May 2007



Results of ecological/geological data search for DUNFORD BRIDGE

Dear Clare Mcilwraith

Thank you for requesting the results of an ecological/geological data search for the above, we have searched the following data sets:

Dataset	Searched
Statutory sites	No
Non-statutory sites	Yes
UKBAP Priority Habitats	Yes
Ancient woodland from the Ancient Woodland Inventory	Yes
Protected species included on the Peak District & Derbyshire Protected Species Database 2011, and the PDNPA database	Yes
UKBAP, Local BAP and NERC S41 Priority Species	Yes
Plant species listed on the Derbyshire vascular plant Red Data List (2011)	Yes
Veteran trees	Yes
Sensitive species (badger, birds of prey)	Yes
Invasive Non-Native Species	Yes
Tree Preservation Orders	Yes

Results of Data Search

The attached maps indicate the locations of records from the above datasets within the area of search. These have been summarised and included in this report.

Important information

It must not be assumed that this report contains the definitive information for the site concerned.

The data held by the Peak District National Park Authority (PDNPA) is collated from conservation organisations and the biological recording community. There are areas where the records held are limited, either spatially or taxonomically. Further information should be sought from specialist recorders as required.

This report was compiled using data held at the PDNPA at the time of printing. The PDNPA takes data validation very seriously, but cannot be held responsible for the accuracy of data included in this report.

Copyright

Data held by the PDNPA remain the intellectual property, and in the ownership and copyright, of the originator(s). The PDNPA retains copyright on this report.

Data Usage

Data are provided solely for the use of the enquirer (and their client) and only for the purpose(s) specified by the enquirer at the time of its request. Data must not be reused or stored beyond the life of the project for which they were acquired (or for more than 12 months, whichever is shorter).

The information contained in this report is purely factual and the PDNPA offers no interpretation of the data, or opinion as to the PDNPA's views on any associated proposal.




















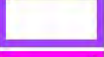



Terms and Conditions

Full terms and conditions relating to the provision of data can be found on the data request form.




























Maps of Results

KEYS (note that not all of these symbols may appear on the maps supplied)

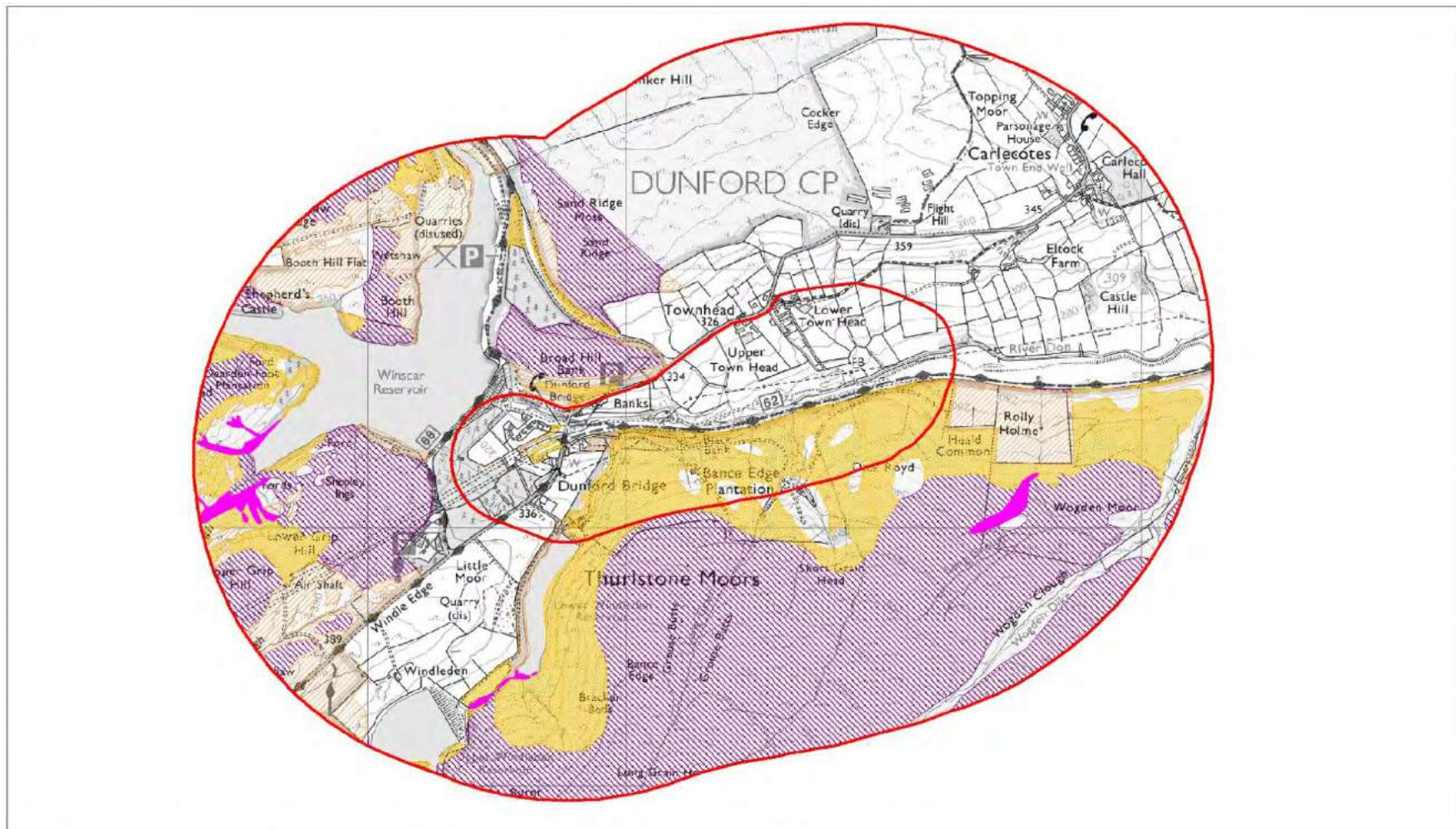
UKBAP Habitats



	Calaminarian Grassland
	Calcareous Grassland
	Acid Grassland
	Lowland Meadow
	Purple Moor-Grass & Rush-Pasture
	Veteran Tree
	Ancient Woodland Inventory
	Plantation on Ancient Woodland Site
	Upland Ashwood
	Upland Oakwood
	Lowland Mixed Deciduous Woodland
	Wet Woodland
	Wood-Pasture & Parkland
	Pond
	Pond
	Lowland Fen
	Upland Flush, Fen & Swamp
	Upland Heathland
	Blanket Bog
	Nationally important waxcap grassland
	Locally important waxcap grassland
	Regionally important waxcap grassland
	Internationally important waxcap grassland

Protected & Notable Species

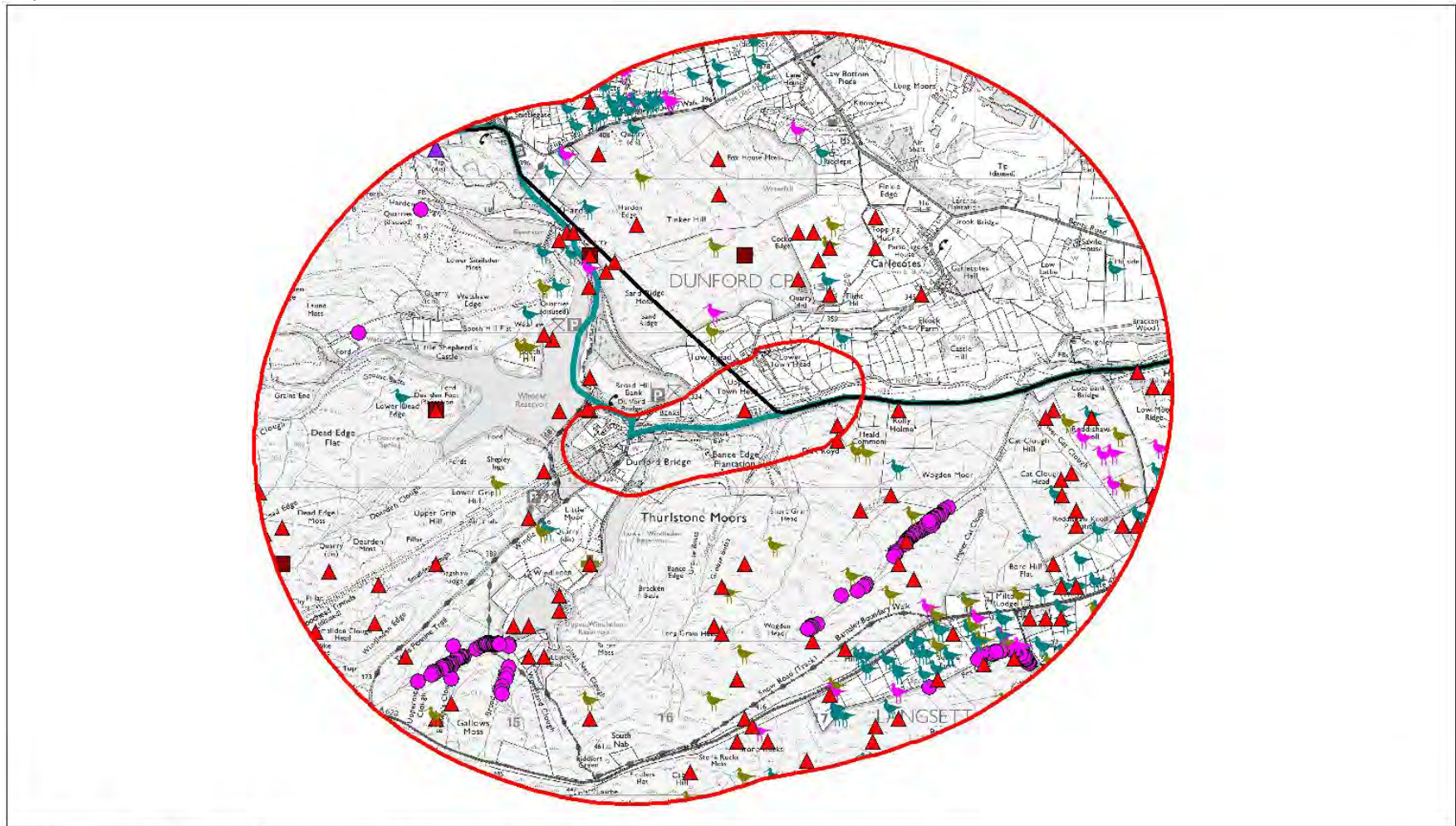
	Great crested newt
	Killarney fern
	UKBAP priority moth
	Dingy skipper
	Grizzled skipper
	Small heath
	Wall
	White admiral
	White letter hairstreak
	Necklace ground beetle
	Violet oil beetle
	UKBAP bumblebee
	Invertebrate
	Other amphibian
	Bird
	Lower plant
	Otter
	Fish
	White-clawed crayfish
	Water vole
	Other mammal
	Notable & RDB plant
	Reptile
	Bat
	Curlew
	Lapwing
	Snipe

Map 1



 <p>PEAK DISTRICT NATIONAL PARK</p>	<p>N</p>  <p>Scale 1:1200</p>	<p>AECOM Data Request - Dunford Bridge - Nov 15</p> <p>BAP Habitats</p> <p><small>© Crown Copyright and database rights 2011. 100005734. © Crown Copyright and database rights 2011. 100005734.</small></p>
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Map 2



N
Scale 1:1000

AECOM Data Request - Dunford Bridge - Nov 15

Protected & Notable Species

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Peak District National Park Authority
 Ecological/Geological Data Request Results
 DUNFORD BRIDGE



Non-Statutory Sites

Nature Reserves

None recorded

Wildlife Sites

Site_name

Authority

None recorded

RIGS/Local Geological Sites

Name

None recorded

Key Ecological Areas

Reference_number

Habitat

Survey_Date

Reason for Selection

Notes

None recorded

European Protected Species

Bats

Scientific_name

Common_Name

GridRef

Year

Comments

None recorded

Great Crested Newt

Scientific_name

Common_Name

GridRef

Year

Comments

None recorded

Otter

Scientific_name

Common_Name

GridRef

Year

Comments

None recorded

Reptiles

Scientific_name

Common_Name

GridRef

Year

Comments

Zootoca vivipara

Common Lizard

SE145042

2005

Peak District National Park Authority
 Ecological/Geological Data Request Results
 DUNFORD BRIDGE



Water Vole

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>Comments</i>
Arvicola amphibius	Water Vole	SE1403	1979	plop;droppings;cut Juncus
Arvicola amphibius	Water Vole	SE177007	1999	runs and burrows
Arvicola terrestris	Water Vole	SE18290092	2003	Site: Upstream of Hordron Road. 6 - 10 droppings in latrine FS of J.effusus. Large latrine is trampled. Site: Upstream of Hordron Road. 1 latrine with 31 - 40 droppings, 1 latrine 51 - 100 droppings
Arvicola terrestris	Water Vole	SE18260094	2003	Site: Upstream of Hordron Road. 21 - 30 droppings in latrine
Arvicola terrestris	Water Vole	SE18250094	2003	Site: Upstream of Hordron Road. 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE18240094	2003	Scattered droppings = 20. Site: Upstream of Hordron Road. 1 latrine with 2 - 5 droppings, 1 latrine 51 - 100 droppings
Arvicola terrestris	Water Vole	SE18220095	2003	FS of J.effusus. Site: Upstream of Hordron Road. 21 - 30 droppings in latrine
Arvicola terrestris	Water Vole	SE18170094	2003	Site: Upstream of Hordron Road. 11 - 20 droppings in latrine
Arvicola terrestris	Water Vole	SE18160094	2003	A further trampled mass of droppings with 1 dropping on top. Site: Upstream of Hordron Road. 1 latrine with 2 - 5 droppings, 1 latrine with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE18130093	2003	4 latrines with 2 - 5 droppings, 2 latrines with 11 - 20 droppings
Arvicola terrestris	Water Vole	SE17750182	2003	2 latrines with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE17750181	2003	3 latrines with 2 - 5 droppings, 1 latrine with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE17740181	2003	2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE17720180	2003	6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE17720179	2003	Single dropping also
Arvicola terrestris	Water Vole	SE17720176	2003	1 latrine with 6 - 10 droppings, 1 latrine 21 - 30 droppings.
Arvicola terrestris	Water Vole	SE17710178	2003	2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE17700177	2003	2 latrines with 11 - 20 droppings each, 1 latrine 6 - 10 droppings, 1 latrine 2 - 5 droppings 2 latrines with 2 - 5 droppings each, 1 latrine with 6 - 10 droppings, 1 latrine with 21 - 30 droppings
Arvicola terrestris	Water Vole	SE17700178	2003	droppings
Arvicola terrestris	Water Vole	SE16920108	2003	11 - 20 droppings in latrine
Arvicola terrestris	Water Vole	SE17290137	2003	Single dropping also 2 latrines with 6 - 10 droppings each, 2 latrines with 11 - 20 droppings each, 1 latrine 51 - 100 droppings
Arvicola terrestris	Water Vole	SE17280136	2003	droppings
Arvicola terrestris	Water Vole	SE17270135	2003	2 latrines with 11 - 20 droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE17230133	2003	2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE17130130	2003	Single dropping also
Arvicola terrestris	Water Vole	SE16970111	2003	FS of J.effusus. 1 latrine 6 - 10 droppings, 1 latrine 11 - 20 droppings
Arvicola terrestris	Water Vole	SE16930110	2003	1 latrine with 2 - 5 droppings, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE16940109	2003	11 - 20 droppings in latrine
Arvicola terrestris	Water Vole	SE16930109	2003	6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE16910108	2003	Single dropping also

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Arvicola terrestris	Water Vole	SE18330088	2003 Latrine trampled. Site: Upstream of Hordron Road. 51 - 100 droppings in latrine
Arvicola terrestris	Water Vole	SE18120093	2003 FS of J.effusus. Latrine is trampled. Site: Upstream of Hordron Road. 51 - 100 droppings in latrine
Arvicola terrestris	Water Vole	SE18120092	2003 Site: Upstream of Hordron Road. 1 latrine with 6 - 10 droppings, 1 latrine 21 - 30 droppings
Arvicola terrestris	Water Vole	SE18100092	2003 Latrine is trampled. 100+ droppings in latrine. Site: Upstream of Hordron Road. Site: Upstream of Hordron Road. 2 latrines 21 - 30 droppings, 1 latrine 6 - 10 droppings, 1 latrine
Arvicola terrestris	Water Vole	SE18070092	2003 2 - 5 droppings FS of J.effusus. Single dropping also. Site: Upstream of Hordron Road. 1 latrine with 2 - 5
Arvicola terrestris	Water Vole	SE18030090	2003 droppings, 1 latrine 6 - 10 droppings One of latrines unquantifiable trampled mass of old droppings. Other latrine 11 - 20 droppings.
Arvicola terrestris	Water Vole	SE18020089	2003 Site: Upstream of Hordron Road
Arvicola terrestris	Water Vole	SE18010088	2003 Site: Upstream of Hordron Road. 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE18350086	2003 Site: Upstream of Hordron Road. 6 - 10 droppings in latrine SIGHTING. Single dropping also. Site: Upstream of Hordron Road. 1 latrine 21 - 30 droppings, 1
Arvicola terrestris	Water Vole	SE18340086	2003 latrine with 51 - 100 droppings
Arvicola terrestris	Water Vole	SE18340087	2003 FS of J.effusus. Site: Upstream of Hordron Road. 51 - 100 droppings in latrine
Arvicola terrestris	Water Vole	SE18320088	2003 One of latrines trampled. Site: Upstream of Hordron Road. Latrines of various sizes
Arvicola terrestris	Water Vole	SE18320089	2003 Site: Upstream of Hordron Road. 21 - 30 droppings in latrine
Arvicola terrestris	Water Vole	SE18320090	2003 Site: Upstream of Hordron Road. 1 latrine with 6 - 10 droppings, 1 latrine 11 -20 droppings One latrine on more trampled droppings. 21 - 30 droppings in latrine. Site: Upstream of Hordron
Arvicola terrestris	Water Vole	SE18310090	2003 Road
Arvicola terrestris	Water Vole	SE17650173	2003 4 latrines with 2 - 5 droppings each, 2 latrines with 11 - 20 droppings each
Arvicola terrestris	Water Vole	SE17680175	2003 4 latrines with 6 - 10 droppings each, 2 latrines with 2 - 5 droppings each
Arvicola terrestris	Water Vole	SE17670175	2003 2 latrines with 2 - 5 droppings each, 1 latrine with 11 - 20 droppings
Arvicola terrestris	Water Vole	SE17670174	2003 21 - 30 droppings in latrine
Arvicola terrestris	Water Vole	SE17660174	2003 2 - 5 droppings in latrine 3 latrines with 2 - 5 droppings each, 1 latrine 6 - 10 droppings, 1 latrine 21 - 30 droppings. Single
Arvicola terrestris	Water Vole	SE17660173	2003 dropping also
Arvicola terrestris	Water Vole	SE17640173	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE17640172	2003 11- 20 droppings in latrine
Arvicola terrestris	Water Vole	SE17630172	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE17630171	2003 Single dropping also
Arvicola terrestris	Water Vole	SE17620171	2003 FS of J.effusus. 3 latrines with 2 - 5 droppings, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE17610171	2003 2 latrines with 2 - 5 droppings, 1 latrine with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE17600170	2003 2 latrines with 2 - 5 droppings each
Arvicola terrestris	Water Vole	SE17590169	2003 11 - 20 droppings in latrine
Arvicola terrestris	Water Vole	SE17580168	2003 2 - 5 droppings in latrine

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Arvicola terrestris	Water Vole	SE17570167	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE17560166	2003 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE17550165	2003 21 - 30 droppings in 1 latrine. One of latrines trampled.
Arvicola terrestris	Water Vole	SE17550164	2003 FS of J.effusus. 3 latrines with 2 - 5 droppings, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE17540164	2003 2 latrines with 11 - 20 droppings each, 1 latrine with 51 - 100 droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE17540163	2003 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE17480158	2003 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE17480157	2003 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE17470155	2003 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE17820187	2003 1 latrine with 41 - 50 droppings, 1 latrine 11 - 20 droppings & 1 latrine with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE17820187	2003 1 latrine with 6 - 10 droppings, 1 latrine 41 - 50
Arvicola terrestris	Water Vole	SE17690177	2003 1 latrine with 2 - 5 droppings, 1 latrine with 6 - 10 droppings, 1 latrine with 11 - 20 droppings
Arvicola terrestris	Water Vole	SE17680176	2003 4 latrines with 2 - 5 droppings each
Arvicola terrestris	Water Vole	SE17790185	2003 2 latrines with 2 - 5 droppings, 1 latrine with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE17780183	2003 Latrine with 41 - 50 droppings
Arvicola terrestris	Water Vole	SE17770182	2003 1 latrine with 6 - 10 droppings, 1 latrine 11 - 20
Arvicola terrestris	Water Vole	SE14480080	2003 1 latrine with 2 - 5 droppings, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE14480079	2003 51 - 100 droppings in latrine
Arvicola terrestris	Water Vole	SE14470078	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14380074	2003 2 latrines with 2 - 5 droppings in each
Arvicola terrestris	Water Vole	SE14970098	2003 3 latrines with 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14970097	2003 Single dropping also
Arvicola terrestris	Water Vole	SE14970083	2003 Some of scattered droppings are old. 11 - 20 droppings in latrine
Arvicola terrestris	Water Vole	SE14960078	2003 FS of J.effusus. 1 latrine with 2 - 5 droppings, 1 latrine with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE14950076	2003 6 - 10 droppings in latrine
Arvicola terrestris	Water Vole	SE14930071	2003 FS of J.effusus. 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14920068	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14610097	2003 3 latrines with 2 - 5 droppings, 1 latrine with 6 - 10 droppings
Arvicola terrestris	Water Vole	SE14790097	2003 2 - 5 droppings in latrine FS of J.effusus. 2 latrines with 2 - 5 droppings each, 2 latrines with 6 - 10 droppings each, 2
Arvicola terrestris	Water Vole	SE14810098	2003 latrines with 11 - 20 droppings each
Arvicola terrestris	Water Vole	SE14820098	2003 2 latrines with 2 - 5 droppings each
Arvicola terrestris	Water Vole	SE14820099	2003 1 latrine with 100+ droppings, 1 latrine with 51 - 100 droppings FS of J.effusus. 2 latrines with 100+ droppings each, 1 latrine 51 - 100 droppings, 1 latrine 31 - 40
Arvicola terrestris	Water Vole	SE14830098	2003 droppings, 1 latrine 21 - 30 droppings, 3 latrines with 2 - 5 droppings

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Arvicola terrestris	Water Vole	SE14850099	2003 1 latrine 51 - 100 droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14840099	2003 2 latrines with 2 - 5 droppings, 1 latrine 11 - 20 droppings
Arvicola terrestris	Water Vole	SE14840098	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14870098	2003 21 - 30 droppings in latrine
Arvicola terrestris	Water Vole	SE14880098	2003 51 - 100 droppings in latrine
Arvicola terrestris	Water Vole	SE14890098	2003 11 - 20 droppings in latrine
Arvicola terrestris	Water Vole	SE14900099	2003 Scattered droppings = 10. Wahlenbergia hederacea.
Arvicola terrestris	Water Vole	SE14900098	2003 2 - 5 droppings in latrine. Single dropping also
Arvicola terrestris	Water Vole	SE14760095	2003 FS of J.effusus. 1 latrine with 11 - 20 droppings, 1 latrine 21 - 30 droppings
Arvicola terrestris	Water Vole	SE14680090	2003 Scattered droppings = 20. 2 latrines with 6 - 10 droppings each, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE14670090	2003 Scattered droppings = 6. 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14660090	2003 FS of J.effusus. 2 latrines with 2 - 5 droppings each, 1 latrine 11 - 20 droppings
Arvicola terrestris	Water Vole	SE14650089	2003 2 - 5 droppings in latrine Large latrine trampled with fresh droppings on top. 1 latrine 100+ droppings, 3 latrines 11 - 20 droppings each, 1 latrine 6 - 10 droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14640089	2003 1 latrine 21 - 30 droppings, 3 latrines with 6 - 10 droppings each , 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14630088	2003 1 latrine 11 - 20 droppings, 1 latrine 6 - 10 droppings, 2 latrines 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14610086	2003 Scattered droppings = 6.
Arvicola terrestris	Water Vole	SE14600086	2003 21 - 30 droppings in latrine
Arvicola terrestris	Water Vole	SE14600084	2003 1 latrine with 21 - 30 droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14600076	2003 Single dropping also
Arvicola terrestris	Water Vole	SE14590085	2003 1 latrine 31 - 40 droppings, 1 latrine 11 - 20 droppings, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE14580085	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14570084	2003 1 latrine 41 - 50 droppings, 1 latrine 21 - 30 droppings
Arvicola terrestris	Water Vole	SE14560084	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14400380	2003 FS of J.effusus. Wv droppings reported 'all along'.
Arvicola terrestris	Water Vole	SE14910098	2003 2 - 5 droppings in latrine
Arvicola terrestris	Water Vole	SE14860098	2003 6 - 10 droppings in latrine FS of J.effusus. 3 latrines with 41 - 50 droppings, 4 latrines with 11 - 20 droppings, 1 latrine with 6 - 10 droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14830099	2003 6 - 10 droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14930066	2003 FS of J.effusus. 1 latrine 100 + droppings, 1 latrine 2 - 5 droppings
Arvicola terrestris	Water Vole	SE14550084	2003 31 - 40 droppings in latrine
Arvicola terrestris	Water Vole	SE14550083	2003 31 - 40 droppings in latrine
Arvicola terrestris	Water Vole	SE14540083	2003 1 latrine with 2 - 5 droppings, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE14540082	2003 1 latrine with 2 - 5 droppings, 1 latrine 6 - 10 droppings
Arvicola terrestris	Water Vole	SE14500080	2003 Scattered droppings = 5. 11 - 20 droppings in latrine
Arvicola terrestris	Water Vole	SE14490080	2003 FS of J.effusus. 6 - 10 droppings in latrine

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White-clawed crayfish

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>Comments</i>
None recorded				

BAP & Notable Species

Mammals

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>Comments</i>
Lepus europaeus	Brown Hare	SE1503	2009	in Calluna/grass - same one?
Lepus europaeus	Brown Hare	SE1603	2009	in Calluna/grass
Lepus timidus	Mountain Hare	SE1301	2005	
Lepus timidus	Mountain Hare	SE1402	2005	

Birds

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>Comments</i>
Actitis hypoleucos	Common Sandpiper	SE153012	2004	Courtship/Display
Actitis hypoleucos	Common Sandpiper	SE150011	2004	Courtship/Display
Actitis hypoleucos	Common Sandpiper	SE154027	2004	Pair in suitable habitat
Actitis hypoleucos	Common Sandpiper	SE154033	2004	Pair in suitable habitat/Courtship display
Alauda arvensis	Skylark	SE155025	2004	
Alauda arvensis	Skylark	SE165025	2004	
Alauda arvensis	Skylark	SE165005	2004	
Alauda arvensis	Skylark	SE175005	2004	
Alauda arvensis	Skylark	SE155035	2004	
Alauda arvensis	Skylark	SE145005	2004	
Alauda arvensis	Skylark	SE155015	2004	
Alauda arvensis	Skylark	SE155005	2004	
Alauda arvensis	Skylark	SE155045	2004	
Alauda arvensis	Skylark	SE155025	2004	
Alauda arvensis	Skylark	SE165015	2004	
Alauda arvensis	Skylark	SE165025	2004	
Alauda arvensis	Skylark	SE175025	2004	
Alauda arvensis	Skylark	SE185025	2004	
Alauda arvensis	Skylark	SE185015	2004	
Alauda arvensis	Skylark	SE175015	2004	
Alauda arvensis	Skylark	SE145025	2004	
Alauda arvensis	Skylark	SE145015	2004	
Alauda arvensis	Skylark	SE185020	2011	singing males (April - June)

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Alauda arvensis	Skylark	SE164003	2011 singing male
Alauda arvensis	Skylark	SE164007	2011 singing male
Alauda arvensis	Skylark	SE177007	2011 singing males (April - June)
Alauda arvensis	Skylark	SE169036	2011 singing males (April - June)
Anthus pratensis	Meadow Pipit	SE155025	2004
Anthus pratensis	Meadow Pipit	SE165025	2004
Anthus pratensis	Meadow Pipit	SE175005	2004
Anthus pratensis	Meadow Pipit	SE155035	2004
Anthus pratensis	Meadow Pipit	SE165005	2004
Anthus pratensis	Meadow Pipit	SE155015	2004
Anthus pratensis	Meadow Pipit	SE155005	2004
Anthus pratensis	Meadow Pipit	SE145005	2004
Anthus pratensis	Meadow Pipit	SE155045	2004
Anthus pratensis	Meadow Pipit	SE155025	2004
Anthus pratensis	Meadow Pipit	SE175015	2004
Anthus pratensis	Meadow Pipit	SE165015	2004
Anthus pratensis	Meadow Pipit	SE165025	2004
Anthus pratensis	Meadow Pipit	SE175025	2004
Anthus pratensis	Meadow Pipit	SE185025	2004
Anthus pratensis	Meadow Pipit	SE185015	2004
Anthus pratensis	Meadow Pipit	SE145025	2004
Anthus pratensis	Meadow Pipit	SE145015	2004
Anthus pratensis	Meadow Pipit	SE185020	2011 singing males (April - June)
Anthus pratensis	Meadow Pipit	SE175016	2011 singing males April
Anthus pratensis	Meadow Pipit	SE163010	2011 singing males April
Anthus pratensis	Meadow Pipit	SE180008	2011 singing males May
Anthus pratensis	Meadow Pipit	SE169036	2011 singing males (April - June)
Branta canadensis	Canada Goose	SE152009	2004 Alarm calling
Calidris canutus	Knot	SE187024	2012 low west in poor weather
Carduelis cabaret	Lesser Redpoll	SE186013	2011 calling birds
Carduelis cabaret	Lesser Redpoll	SE191026	2011 display
Carduelis cabaret	Lesser Redpoll	SE191019	2011 singing male + 3 birds
Carduelis cabaret	Lesser Redpoll	SE190017	2012 family parties
Carduelis cannabina	Linnet	SE171024	2004 Territorial behaviour
Carduelis cannabina	Linnet	SE171024	2004 Territorial behaviour
Carduelis cannabina	Linnet	SE153024	2004 Pair in suitable habitat
Carduelis cannabina	Linnet	SE154025	2004 Pair in suitable habitat
Carduelis cannabina	Linnet	SE153036	2004 Territorial behaviour/Alarm calling
Carduelis cannabina	Linnet	SE191019	2011 male

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Carduelis cannabina	Linnet	SE180008	2011 singing male
Carduelis cannabina	Linnet	SE173037	2011 pair nest building
Columba oenas	Stock Dove	SE152029	2004 Pair in suitable habitat
Cuculus canorus	Cuckoo	SE152021	2004 Territorial behaviour
Delichon urbicum	House Martin	SE192026	2011 feeding over fields
Emberiza schoeniclus	Reed Bunting	SE182008	2004 Pair in suitable habitat
Emberiza schoeniclus	Reed Bunting	SE171023	2004 Territorial behaviour
Emberiza schoeniclus	Reed Bunting	SE153036	2004 Pair in suitable habitat
Emberiza schoeniclus	Reed Bunting	SE153036	2004 Pair in suitable habitat
Emberiza schoeniclus	Reed Bunting	SE143009	2004 Single bird in suitable habitat
Emberiza schoeniclus	Reed Bunting	SE146006	2004 Territorial behaviour
Emberiza schoeniclus	Reed Bunting	SE174019	2011 calling bird
Emberiza schoeniclus	Reed Bunting	SE180008	2011 singing male
Falco tinnunculus	Kestrel	SE171023	2004 hunting
Falco tinnunculus	Kestrel	SE156034	2004 hunting
Falco tinnunculus	Kestrel	SE151009	2004
Falco tinnunculus	Kestrel	SE186017	2011 male hunting
Falco tinnunculus	Kestrel	SE161001	2011 hunting male
Falco tinnunculus	Kestrel	SE168033	2011 male flying s
Gallinago gallinago	Snipe	SE18830218	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE19190223	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE18010112	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE18180101	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE16300311	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE16850429	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE16020447	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE15710467	2002 Record associated with specific field
Gallinago gallinago	Snipe	SE189020	2004 Territorial behaviour
Gallinago gallinago	Snipe	SE189022	2004 Territorial behaviour
Gallinago gallinago	Snipe	SE187023	2004 Territorial behaviour
Gallinago gallinago	Snipe	SE183009	2004 Single bird in suitable habitat
Gallinago gallinago	Snipe	SE180009	2004 Single bird in suitable habitat
Gallinago gallinago	Snipe	SE177012	2004 Alarm calling
Gallinago gallinago	Snipe	SE175006	2004 Single bird in suitable habitat
Gallinago gallinago	Snipe	SE170006	2004 Single bird in suitable habitat
Gallinago gallinago	Snipe	SE166004	2004 Territorial behaviour
Gallinago gallinago	Snipe	SE157044	2004 Single bird in suitable habitat
Gallinago gallinago	Snipe	SE155034	2004 Territorial behaviour/Alarm calling
Gallinago gallinago	Snipe	SE15340413	2007 Record associated with specific field

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Gallinago gallinago	Snipe	SE16010449	2007 Record associated with specific field
Gallinago gallinago	Common Snipe	SE177011	2011 territorial birds (April-June)
Gallinago gallinago	Common Snipe	SE177011	2011 nest 4 eggs Rain Gauge field
Gallinago gallinago	Common Snipe	SE170035	2011 territorial birds (April-June)
Gallinago gallinago	Common Snipe	SE187024	2011 territorial birds (April-June)
Gallinago gallinago	Common Snipe	SE187024	2012 territorial birds (April-June)
Gallinago gallinago	Common Snipe	SE177011	2012 territorial birds (April-June)
Gallinago gallinago	Common Snipe	SE170035	2012 territorial birds (April-June)
Haematopus ostralegus	Oystercatcher	SE151029	2004 Pair in suitable habitat
Haematopus ostralegus	Oystercatcher	SE151011	2004 Territorial behaviour
Haematopus ostralegus	Oystercatcher	SE171009	2012 pair (April - June)
Lagopus lagopus	Red Grouse	SE155025	2004 At least 10 pairs of CG around Reservoir
Lagopus lagopus	Red Grouse	SE165025	2004 No comments
Lagopus lagopus	Red Grouse	SE175005	2004 Each field contained pairs of Lapwing.
Lagopus lagopus	Red Grouse	SE155035	2004 No comments
Lagopus lagopus	Red Grouse	SE165005	2004 No comments
Lagopus lagopus	Red Grouse	SE155015	2004 Sheep in fields next to farm.
Lagopus lagopus	Red Grouse	SE155005	2004 No comments
Lagopus lagopus	Red Grouse	SE145005	2004 Female PE is immature
Lagopus lagopus	Red Grouse	SE155045	2004 No comments
Lagopus lagopus	Red Grouse	SE155025	2004 At least 10 pairs of CG around Reservoir
Lagopus lagopus	Red Grouse	SE165015	2004 No comments
Lagopus lagopus	Red Grouse	SE165025	2004 No comments
Lagopus lagopus	Red Grouse	SE175025	2004 No comments
Lagopus lagopus	Red Grouse	SE185025	2004 No comments
Lagopus lagopus	Red Grouse	SE185015	2004 No comments
Lagopus lagopus	Red Grouse	SE175015	2004 Met gamekeeper Briggs on moor. Gave him leaflet and told I could continue.
Lagopus lagopus	Red Grouse	SE145025	2004 No comments
Lagopus lagopus	Red Grouse	SE145015	2004 Sheep taken off moor yesterday
Lagopus lagopus	Red Grouse	SE163013	2011 nest 9 eggs
Lagopus lagopus	Red Grouse	SE165004	2011 nest 9 eggs
Lagopus lagopus	Red Grouse	SE173035	2011 female & 2 juvs
Milvus milvus	Red Kite	SE176032	2011 adult south west
Motacilla cinerea	Grey Wagtail	SE184024	2012 pair on stream Lower Cat Clough
Muscicapa striata	Spotted Flycatcher	SE190017	2012 feeding - breeding site?
Muscicapa striata	Spotted Flycatcher	SE183011	2012 feeding - breeding site?
Numenius arquata	Curlew	SE18830218	2002 Record associated with specific field
Numenius arquata	Curlew	SE182009	2004 Pair in suitable habitat
Numenius arquata	Curlew	SE180009	2004 Single bird in suitable habitat

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Numenius arquata	Curlew	SE177009	2004 Pair in suitable habitat
Numenius arquata	Curlew	SE172014	2004 Pair in suitable habitat
Numenius arquata	Curlew	SE176018	2004 Territorial behaviour/Courtship display
Numenius arquata	Curlew	SE170006	2004 Single bird in suitable habitat
Numenius arquata	Curlew	SE165001	2004 Territorial behaviour/Courtship display
Numenius arquata	Curlew	SE163006	2004 Territorial behaviour/Courtship display
Numenius arquata	Curlew	SE165009	2004 Territorial behaviour/Courtship display
Numenius arquata	Curlew	SE155006	2004 Territorial behaviour/Courtship display
Numenius arquata	Curlew	SE145005	2004 Territorial behaviour/Courtship display
Numenius arquata	Curlew	SE151028	2004 Pair in suitable habitat
Numenius arquata	Curlew	SE152032	2004 Pair in suitable habitat/Territorial behaviour
Numenius arquata	Curlew	SE149020	2004 Territorial behaviour
Numenius arquata	Curlew	SE164013	2004 Territorial behaviour/Alarm calling
Numenius arquata	Curlew	SE167016	2004 Territorial behaviour/Alarm calling
Numenius arquata	Curlew	SE173022	2004 Single bird in suitable habitat
Numenius arquata	Curlew	SE186024	2004 Pair in suitable habitat
Numenius arquata	Curlew	SE18930231	2007 Record associated with specific field
Numenius arquata	Curlew	SE18980197	2007 Record associated with specific field
Numenius arquata	Curlew	SE18280127	2007 Record associated with specific field
Numenius arquata	Curlew	SE17980108	2007 Record associated with specific field
Numenius arquata	Curlew	SE17950123	2007 Record associated with specific field
Numenius arquata	Curlew	SE17230221	2007 Record associated with specific field
Numenius arquata	Curlew	SE16290299	2007 Record associated with specific field
Numenius arquata	Curlew	SE17450128	2007 Record associated with specific field
Numenius arquata	Curlew	SE17070367	2007 Record associated with specific field
Numenius arquata	Curlew	SE15830398	2007 Record associated with specific field
Numenius arquata	Curlew	SE16310353	2007 Record associated with specific field
Numenius arquata	Curlew	SE15050289	2007 Record associated with specific field
Numenius arquata	Curlew	SE15190168	2007 Record associated with specific field
Numenius arquata	Curlew	SE177011	2011 breeding pairs (April-June)
Numenius arquata	Curlew	SE170035	2011 breeding pairs (April-June)
Numenius arquata	Curlew	SE187024	2011 breeding pairs (April-June)
Numenius arquata	Curlew	SE187024	2012 breeding pairs (April-June)
Numenius arquata	Curlew	SE177011	2012 breeding pairs (April-June)
Numenius arquata	Curlew	SE170035	2012 breeding pairs (April-June)
Oenanthe oenanthe	Wheatear	SE185020	2011 migrants
Oenanthe oenanthe	Wheatear	SE170006	2011 breeding pair
Oenanthe oenanthe	Wheatear	SE180008	2011 males
Oenanthe oenanthe	Wheatear	SE187024	2012 migrants

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Phoenicurus phoenicurus	Redstart	SE184011	2011 singing male
Phylloscopus trochilus	Willow Warbler	SE189017	2011 singing male
Phylloscopus trochilus	Willow Warbler	SE185011	2011 singing male
Pluvialis apricaria	Golden Plover	SE176014	2004 Alarm calling
Pluvialis apricaria	Golden Plover	SE158037	2004 Territorial behaviour/Courtship display
Pluvialis apricaria	Golden Plover	SE163011	2004 Territorial behaviour/Alarm calling
Pluvialis apricaria	Golden Plover	SE186018	2011 nest 4 eggs
Pluvialis apricaria	Golden Plover	SE172018	2011 calling bird
Pluvialis apricaria	Golden Plover	SE166003	2011 breeding pairs (April-June)
Pluvialis apricaria	Golden Plover	SE173004	2011 breeding pairs (April-June)
Pluvialis apricaria	Golden Plover	SE186018	2012 breeding pair
Pluvialis apricaria	Golden Plover	SE170035	2012 breeding pair
Pluvialis apricaria	Golden plover	SE 18558 01945	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 18622 02087	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 16941 00996	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 16980 03473	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 16336 03901	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 16327 04127	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 15555 04161	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 17334 00348	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 16906 00225	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 13717 01060	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 13805 01449	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 13501 01734	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 13353 01965	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 14105 01119	2013 Breeding pair
Pluvialis apricaria	Golden plover	SE 14130 01365	2013 Breeding pair
Saxicola rubetra	Whinchat	SE156034	2004 Single bird in suitable habitat
Saxicola rubetra	Whinchat	SE151018	2004 Territorial behaviour
Sterna paradisaea	Arctic Tern	SE185020	2011 migrant flying nw
Turdus pilaris	Fieldfare	SE185011	2011 late winter migrants
Turdus viscivorus	Mistle Thrush	SE155035	2004 Fledged young
Turdus viscivorus	Mistle Thrush	SE153013	2004 Single bird in suitable habitat
Turdus viscivorus	Mistle Thrush	SE185013	2011 singing male
Turdus viscivorus	Mistle Thrush	SE173037	2011 singing male
Turdus viscivorus	Mistle Thrush	SE190027	2011 feeding
Vanellus vanellus	Lapwing	SE18680151	2002 Record associated with specific field
Vanellus vanellus	Lapwing	SE18590134	2002 Record associated with specific field
Vanellus vanellus	Lapwing	SE18670134	2002 Record associated with specific field

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Vanellus vanellus	Lapwing	SE18780137	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE19190223	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE19060180	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18830218	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18420095	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18180101	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18170112	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18010112	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18010097	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18560119	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17830088	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17950124	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17960107	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17770106	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17630098	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17140294	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18900368	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE18900338	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE16560486	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE16360460	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE16330470	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE16170464	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17000414	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE17040331	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15490378	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15380348	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15710467	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15750442	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15920447	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE16020447	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15650445	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15590457	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15330413	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15230170	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15410431	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE15570438	2002	Record associated with specific field
Vanellus vanellus	Lapwing	SE176009	2004	Pair in suitable habitat
Vanellus vanellus	Lapwing	SE176009	2004	Pair in suitable habitat
Vanellus vanellus	Lapwing	SE177008	2004	Single bird in suitable habitat

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Vanellus vanellus	Lapwing	SE173008	2004 Pair in suitable habitat
Vanellus vanellus	Lapwing	SE172008	2004 Pair in suitable habitat
Vanellus vanellus	Lapwing	SE173008	2004 Pair in suitable habitat
Vanellus vanellus	Lapwing	SE175008	2004 Pair in suitable habitat
Vanellus vanellus	Lapwing	SE171005	2004 Pair in suitable habitat
Vanellus vanellus	Lapwing	SE171005	2004 Pair in suitable habitat
Vanellus vanellus	Lapwing	SE171005	2004 Pair in suitable habitat
Vanellus vanellus	Lapwing	SE158044	2004 Pair in suitable habitat/Alarm calling
Vanellus vanellus	Lapwing	SE157043	2004 Fledged young
Vanellus vanellus	Lapwing	SE157044	2004 Pair in suitable habitat/Alarm calling
Vanellus vanellus	Lapwing	SE158044	2004 Pair in suitable habitat/Distracted display
Vanellus vanellus	Lapwing	SE159044	2004 Pair in suitable habitat/Alarm calling
Vanellus vanellus	Lapwing	SE156044	2004 Fledged young
Vanellus vanellus	Lapwing	SE156044	2004 Fledged young
Vanellus vanellus	Lapwing	SE151031	2004 Single bird in suitable habitat/Territorial behaviour
Vanellus vanellus	Lapwing	SE153032	2004 Pair in suitable habitat/Territorial behaviour
Vanellus vanellus	Lapwing	SE188017	2004 Territorial behaviour/Courtship display
Vanellus vanellus	Lapwing	SE175021	2004 Territorial behaviour/Courtship display
Vanellus vanellus	Lapwing	SE152035	2004 Single bird in suitable habitat
Vanellus vanellus	Lapwing	SE18580110	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18440094	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18430129	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE19180208	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18930231	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18980197	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18520193	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE19060180	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18010097	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18180111	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18170101	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE18280127	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE17830088	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE17770105	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE17980108	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE17950123	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE17670076	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE17590095	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE16590473	2007 Record associated with specific field
Vanellus vanellus	Lapwing	SE16630462	2007 Record associated with specific field

**Peak District National Park Authority
Ecological/Geological Data Request Results
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Vanellus vanellus	Lapwing	SE17500077	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE17430086	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE15340413	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE17070367	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE15360443	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE16310353	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE15520436	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE16010449	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE15910448	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE15240400	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE14280256	2007	Record associated with specific field
Vanellus vanellus	Lapwing	SE183016	2011	breeding pairs (April-June)
Vanellus vanellus	Lapwing	SE177011	2011	breeding pairs (April-June)
Vanellus vanellus	Lapwing	SE174005	2011	breeding pairs (April-June)
Vanellus vanellus	Lapwing	SE170035	2011	breeding pairs (April-June)
Vanellus vanellus	Lapwing	SE187024	2011	breeding pairs (April-June)
Vanellus vanellus	Lapwing	SE187024	2012	breeding pairs (April-June)
Vanellus vanellus	Lapwing	SE187024	2012	unusual on uplands at this time of year
Vanellus vanellus	Lapwing	SE177011	2012	breeding pairs (April-June)
Vanellus vanellus	Lapwing	SE170035	2012	breeding pairs (April-June)

Amphibians

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>Comments</i>
Rana temporaria	Common Frog	SE1501	2009	3 clumps of spawn in wheel rut
Rana temporaria	Common Frog	SE1501	2009	105 clumps of spawn in rusty stream

Invertebrates

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>Comments</i>
None recorded				

Plants

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>RDB Category</i>
None recorded				

Invasive Species

<i>Scientific_name</i>	<i>Common_Name</i>	<i>GridRef</i>	<i>Year</i>	<i>Comments</i>
None recorded				

Appendix C. Target Notes

Appendix C: Target Notes

Target Note	Details
1	Broadleaved woodland located to northern side of River Don. Trees are generally immature and were not considered to provide suitable features to support roosting bats.
2	Route of disused railway line and entrance to eastern end of the Woodhead –Stalybridge tunnel. The yard area to immediately adjacent to the tunnel entrance were not accessed however comprise of hard standing and a number of small office buildings.
3	Rhododendron (<i>Rhododendron ponticum</i>) present, a Schedule 9 species of the Wildlife and Countryside Act.
4	Pond located within residential garden area, surrounded by mown amenity grassland (lawn). The pond has potential to support great crested newt.
5	Rhododendron present within this area.
6	Mosaic of semi-improved grassland and scattered scrub including young trees with reptile potential.
7	Area of vegetated spoil heap from old quarry works. Mainly composed of poor semi-improved grassland with areas of bare soil where cattle have poached the land.
8	Area of vegetated quarry spoil with south facing banks and rough grassland with the potential to support reptiles.
9	Stream valley containing poor semi-improved grassland being encroached by semi-mature trees and scrub.
10	Two mature ash trees with bat roost potential.
11	Extensive area of rhododendron on the southern river bank.
12	Banks of disused railway line composed of a mosaic of dry heath; heather (<i>Calluna vulgaris</i>), bracken (<i>Pteridium aquilinum</i>) interposed with some area of rhododendron. Areas of exposed rock were present within the cutting to the tunnel. Natural horizontal cracks and crevices present on all aspects. Potential to support roosting bats and nesting birds but limited by presence of metal netting .
13	. Exposed rock located close to the existing pylon where top soil has eroded, and a small area of stonework which is assumed to be a single layer of stones with earth behind. Possible bat roost potential.
14	Mosaic of heathland, unimproved grassland and bracken.
15	Old quarry works with crevices and holes which may support bats.
16	Brick embankments of disused railway with crevices in between the brickwork which may support roosting bats.
17	Reptile potential associated with the path and surrounding habitats.
18	Buildings including barn with negligible bat roost potential (new metal roof).
19	Mature oak (<i>Quercus robur</i>) approximately 7m high and 30cm diameter at breast height. Minor cracks and crevices with bat roost potential.
20	Mature oak tree 10 m high with bat roost potential.
21	Pond approximately 25x5 m with potential to support great crested newt. Waterfowl present.
22	Scattered trees/woodland alongside a small ravine/cutting with marshy burn type feature at base (no open water was present) containing a mix of Scots pine, oak and willow (<i>Salix</i> sp.). A number of mature oaks had features which have potential to support roosting bats.
23	Several mature alders overhanging river with bat roost potential.
24	Stone bridge - abutments to either side of River Don present only. Crevices and cavities present within stonework which could offer potential bat roosting opportunities.
25	Four mature ash (<i>Fraxinus excelsior</i>) trees located along boundary. Potential to support roosting bats.
26	Mature trees located on field boundary with potential to support roosting bats.
27	Mature trees along river bank with bat roost potential.
28	Small brick bunker type building located on southern bank of river. No inspected in detail but which may provide bat roosting opportunities.
29	Mature trees with bat roost potential.
30	Lined pond 15x3 m with a sandy substrate and small amount of aquatic vegetation including water forget-me-not (<i>Myosotis scorpioides</i>).
31	Wogden Foot Local Wildlife Site: Unimproved acid grassland and scattered scrub with mounds of limestone ballast supporting calcareous grassland.
32	Marshy grassland following the course of a small stream containing mainly Rushes (<i>Juncus</i> sp.).
33	Semi-mature broadleaved woodland with scattered scrub including hawthorn (<i>Crataegus monogyna</i>), elder (<i>Sambucus nigra</i>) and a bramble (<i>Rubus fruticosus</i> agg.) understory.

34	Small pond 5x5 m recently created. It is understood this pond may have been created for drainage purposes in relation to the adjacent Sealing End Compound. The pond may have potential to support great crested newt.
35	Artificial vegetated rocky exposure at base of reservoir dam.
36	Pond 5 - A small pond of approximate dimensions 4 x 4 m located to the west of the Sealing End compound.
37	Pond 6 - Small circular pond in commune land, approximately 15m ² in area and estimated to be 30+ years old. The pond has a thick covering of duckweed (<i>Lemna</i> sp.) and is fringed by marsh marigold (<i>Caltha palustris</i>) and rushes (<i>Juncus</i> sp.). Surrounding habitats include cultivated land, dense scrub and broad-leaved woodland. Tenant advised that the pond is cleared out every year or so and is used by frogs. The presence of great crested newt was not known.
38	Pond 7 – Small ornamental garden pond. Limited aquatic vegetation, very small and tropical fish present.
39	Pond 8 – Small circular lined man made pond to rear of property – stone sided, shallow with little or no aquatic vegetation has been cleared out by owners. Good refugia close by with rubble piles and other features such as old tyres, plant pots and containers.
40	Pond 9 – Circular pond located within field, lined with shallow banks. Aquatic vegetation present. Appears to be fed by land drain. Potential to support great crested newt.
41	Culvert with bat roosting potential. Stone and brick culvert approximately 2 – 3 m beneath TPT. Culvert is approximately 2 m wide, 3 m high and 20 m long. Brick and stone floor. Tunnel is composed of stonework with a brick section for 1 m at either end. Stone wing walls and facing.
42	Stone culvert with potential to support roosting bats - approximately 50 m in length ending in sluice gate beneath TPT. Draining a small stream approximately 30cm deep with fast flow.
43	Stone and brick culvert close to Yorkshire Water facility with potential to support roosting bats - of unknown length approximately 1 – 2 m beneath ground level. The culvert is approximately 2 m wide and 2 m high at its southern end. The northern end of the culvert was not visually inspected but can be located on a map north of the TPT

Appendix D. HSI pond calculations

Appendix D: HSI Pond Calculations

Factor	Pond 1		Pond 2		Pond 3		Pond 4		Pond 5	
	Value	Score	Value	Score	Value	Score	Value	Score	Value	Score
Location (SI 1)	A	1	A	1	A	1	A	1	A	1
Surface Area (SI 2)	75	0.1	430	0.9	160	0.3	25	0.05	15	0.05
Pond Drying (SI 3)	Sometimes	0.5	Rarely	1	Rarely	1	Sometimes	0.5	Sometimes	0.5
Water Quality (SI 4)	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
Shade (SI 5)	0%	1	10%	1	5%	1	70%	0.9	5%	1
Water Fowl (SI 6)	Absent	1	Major	0.01	Minor	0.67	Absent	1	Absent	1
Fish (SI 7)	Absent	1	Possible	0.67	Possible	0.67	Absent	1	Absent	1
Ponds (SI 8)	0.64	0.53	0.32	0.38	1.59	0.78	1.59	0.78	1.59	0.78
Terrestrial Habitat (SI 9)	Good	1	Good	1	Moderate	0.67	Good	1	Good	1
Macrophyte Cover (SI 10)	10%	0.35	50%	0.8	10%	0.35	60%	0.9	60%	0.9
HSI Score	0.60		0.51		0.66		0.63		0.64	
Suitability	Below Average		Below Average		Average		Average		Average	

Factor	Pond 6		Pond 7		Pond 8		Pond 9	
	Value	Score	Value	Score	Value	Score	Value	Score
Location (SI 1)	A	1	A	1	A	1	A	1
Surface Area (SI 2)	15	0.05	2	0.01	10	0.05	15	0.05
Pond Drying (SI 3)	Never	0.9	Never Dries	0.9	Never Dries	0.9	Never Dries	0.9
Water Quality (SI 4)	Moderate	0.67	Poor	0.33	Poor	0.33	Moderate	0.67
Shade (SI 5)	0%	1	0%	1	0%	1	0%	1
Water Fowl (SI 6)	Minor	0.67	Absent	1	Absent	1	Absent	1
Fish (SI 7)	Absent	1	Minor	0.33	Absent	1	Absent	1
Ponds (SI 8)	0.32	0.38	1.59	0.78	1.59	0.78	1.59	0.78
Terrestrial Habitat (SI 9)	Moderate	0.67	Moderate	0.67	Moderate	0.67	Moderate	0.67
Macrophyte Cover (SI 10)	10%	0.4	0%	0.3	0%	0.3	30%	0.6
HSI Score	0.54		0.42		0.55		0.63	
Suitability	Below Average		Poor		Below Average		Average	

Appendix E. Photographs

Appendix E: Photographs

Photograph 1: Looking south west from Carlecotes towards the river and TPT corridor and the eastern end of the OHL section within the Peak District East scheme. Clearly shows difference in habitats on the southern side of the river/TT corridor comprising dry acid grassland and heath and the improved grassland fields and dry stone walls dominant in the northern part of the survey area



Photograph 2: River Don, showing semi-mature broadleaved woodland strip along the banks of the river and semi-improved grassland along the northern banks



Photograph 3: Areas of dry heath/acid grassland on the southern side of the survey area (upland heathland)



Photograph 4: Pond 2, duck pond with a Habitat Suitability Index score of Below Average (0.53). Target Note 21, Figure 3D.



Photograph 5: Scattered mature trees located adjacent to the River Don, these trees have features that have the potential to support bat roosts - Target Note 39, Figure 3C.



Photograph 6: The Trans-Pennine Trail that runs through the centre of the survey area, showing the corridor of semi-mature trees on either side (looking east in November 2015).



Photograph 7: The Trans-Pennine Trail that runs through the centre of the survey area, showing the corridor of semi-mature trees on either side (looking west in May 2016).



Photograph 8: Pond 9 located adjacent to road through Dunford Bridge; a circular pond located within a field, lined with shallow banks. Habitat Suitability Index score of Average (0.63) - Target Note 40, Figure 3A.



Photograph 9: View from edge of Winscar reservoir looking south showing existing SEC and 4ZO tower and residential properties on Don View.



Photograph 10: View looking north west from Windle Edge road showing cutting/earth/stone embankment directly east of existing SEC and tunnel entrances showing stone/rock embankment feature and presence of Rhododendron highlighted as Target Note 12, Figure 3A.



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Appendix B: Certificate of Conformity to the EC Directive 89/336

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Technical Certificate 05R110 issued by
Hursley EMC Services Ltd

*Appointed by the Secretary of State for Trade and Industry
as a UK EMC Competent Body*



**HURSLEY
EMC
SERVICES**

TECHNICAL CERTIFICATE

PRODUCT TITLE: NGT Electricity Transmission Network

MANUFACTURED BY: National Grid Transco (NGT) plc

Manufacturers Address: NGT House, Warwick Technology Park, Gallows Hill,
Warwick CV34 6DA UK

Applicants Name: Mr Jon Carlton, of NGT plc.

Product Description: The NGT Electricity Transmission Network (consisting of some 14,000 Km of high voltage supply lines) is the high voltage electricity transmission system in England and Wales.


Technical Statement: The Technical Construction File (TCF), "NGT Electricity Transmission Network" (dated 2005), describes the general construction, conformity procedures and EMC test rationale for the Electricity Network. This Technical Construction File, in so far as is technically viable, is based on testing to international standards, specifically EN50121-2:2000 and CISPR 18 for emissions. These standards were used as the most suitable guide for the emissions testing in lieu of any other practical or harmonized product related standards. Given the size of the equipment, testing was performed in-situ at several representative sites and is therefore an approximation to the standards. The results of the tests applied and described in the test reports along with the EMC detail supplied in the TCF indicate that the product complies with the standards. Taking into consideration the technical rationale provided in the TCF and the results of the site measurement reports, Hursley EMC Services is satisfied the TCF does demonstrate compliance with the essential protection requirement of EC Directive 89/336. NGT operates a certified ISO 9001 quality management system covering both the operation and installation procedures for the Electricity Network. Due to its size and nature along with quality procedures used for installations the NGT Electricity Transmission Network would seem inherently immune to normal EMC phenomena.

This route to compliance with respect to the provisions of EC Directive 89/336 is in accordance with section 42(c) of the UK Statutory Instrument 1992 No 2372 (The Electromagnetic Compatibility Regulations). This application and certificate applies only to the NGT Electricity Transmission Network for the UK as described in the Technical Construction File.

COMPETENT BODY CONFORMITY STATEMENT

Hursley EMC Services Ltd. certifies that the National Grid Transco plc TCF demonstrates that the NGT Electricity Transmission Network conforms to the protection requirements of European Council Directive 89/336 and its amendments. This directive is on the approximation laws of the Member States relating to electromagnetic compatibility.

Signed: 
Rob St John James
EMC Technical Manager

Approved: 
Ian Kenney
EMC Quality Manager

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