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Ecological Consultants
Environmental and Rural Chartered Surveyors

ECOLOGICAL SURVEY REPORT

BANK END, BARNSLEY

May 2014

NB. Information on legally protected, rare or vulnerable species may appear in ecological reports. In such cases it is recommended that appropriate caution be used when circulating copies.

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COMMENTS ON CURRENT STATUS AND ANY IMMEDIATE AND FUTURE ACTIONS NEEDED:

THE DEVELOPMENT SITE SUPPORTS AN UNREMARKABLE ASSEMBLAGE OF COMMONLY OCCURRING PLANT SPECIES AND LIMITED POTENTIAL FOR PROTECTED SPECIES. TREES ON AND ADJACENT TO THE SITE PROVIDE FEW POTENTIALLY SUITABLE REFUGES FOR BATS OR BIRDS. NO AQUATIC HABITAT OCCURS ADJACENT TO THE SITE OR WILL BE AFFECTED BY WORK.

NO PROTECTED SPECIES WERE LOCATED AND NO FOLLOW UP SURVEYS ARE JUDGED AS BEING REQUIRED.

REPORT CONTROL SHEET

General Report Information	
Date of site risk assessment	20th February 2011
Project lead signature	Andrew Gardner - Director
Date report issued	19th May 2014
Report approved by	Andrew Gardner - Director

Report Version Control

Whilst all due and reasonable care is taken in the preparation of reports, Envirotech accept no responsibility whatsoever for any consequences of the release of this report to third parties.

Version	Date	Author	Description
1.0	22nd February 2011	Andrew Gardner	Proof read and issued
2.0	19th May 2014	Andrew Gardner	Proof read and issued, for new application

RESULTS SUMMARY AND ACTIONS REQUIRED

Results

1. The sites support habitat of some, albeit, limited value to wildlife.

2. There is limited potential for use of the areas affected by work for use by protected species, there should be minimal impact on locally important habitat. There is unlikely to be extensive use of the site by bats or any other protected species.

Actions Required

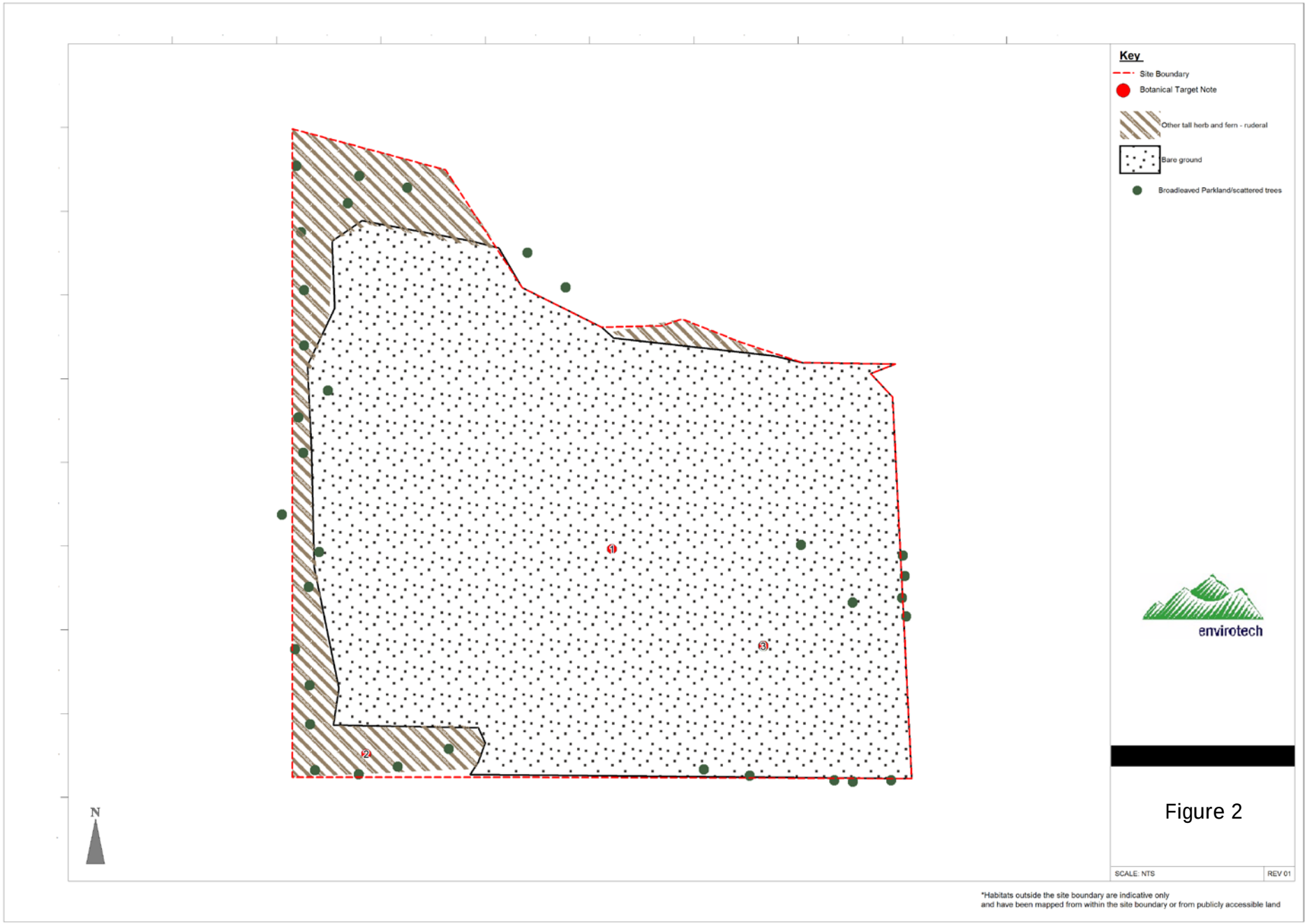
These actions are to meet compliance with current legislation, planning policy and best practice as recognised by the various statutory authorities. They are intended to fulfil ecological planning formalities and facilitate the implementation of the project.

1. There is limited potential for bats to roost on the site. Bats may forage along the boundaries of the sites and over the adjacent woodland. Avoid unnecessary introduction of lighting within the development by minimising the hours when lighting is used during construction, installing directional down-lighting to avoid "spillage", and have consideration for what level of illumination is required.

2. The provision/ retention of linear landscape features such as hedgerows and tree lines around the edge of the site is encouraged. Soft landscaping and the use of native plant species in the landscape plan may in the medium to long term significantly improve the sites potential for use by bats.



Figure 1- Approximate site location


Key
Site Boundary
Botanical Target Note
Other tall herb and fern - ruderal
Bare ground
Broadleaved Parkland/scattered trees
1
2
3
N
envirotech
Figure 2
SCALE: NTS
REV 01
*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land

SURVEY COMMENTARY

The tables below provide the results of the survey in a structured format with particular reference to any notable factors or features for regulatory compliance or conservation. Please also refer to the Plans above and the Plates later in this document.

Item	Observations
Habitats & vegetation	
General description	The site lies to the North of Bank End Road and comprises an area of former semi-natural woodland which has now been cleared. The site is devoid of significant plant cover with common grass and agricultural weed species growing on a heavy bare soil substrate. There is some bare rock which has been excavated and piled up during site clearance. The site is bounded by heavily disturbed habitat to the North, West and South. Semi-natural woodland forms the Eastern boundary.
Target Note 1	Bare ground no vegetation cover.
Target Note 2	Remnant ground cover from former woodland including Yarrow *(Achillea millefolium)*, Bramble *(Rubus fruticosus agg.),* Meadow Grass *(Poa Sp.)*, Yorkshire Fog *(Holcus lanatus)*, Fescues *(Festuca Sp)*, Ivy *(Hedera helix)*, Foxglove *(Digitalis purpurea).*
Target Note 3	Three early-mature Oak which are likely to have been significantly degraded due to soil compaction and truncation of their roots.

Mammals With certain exceptions, all mammals are legally protected from cruel treatment such as crushing or asphyxiation, making it necessary to check sites before groundworks, etc. commence to ensure vulnerable taxa are not harmed. Many species have additional strict protection which may include their habitat, e.g. dormice, water voles, otters. All bats and their roosts are afforded strict protection. Generally, unless a licence is issued, the law prohibits intentional killing, injuring or taking; possessing; intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection, and selling or offering for sale. Badgers and their setts are strictly protected under separate legislation to prevent cruelty.	
Bats	A specific survey for bats was undertaken which was in accordance with the recommendations of BCT (2012). This comprised a close inspection of all trees and buildings on and adjacent to the site for indications of use by a licensed bat surveyor. During the survey no evidence to suggest the presence of bats was found. None of the trees or buildings on or adjacent to the sites were considered to offer any significant bat roosting potential. The area of bare soil to be lost through development was not considered to form part of an area of high quality bat foraging habitat. There are existing high levels of light spill from nearby buildings outside the site boundaries. Trees should be retained around the site boundaries. Any landscaping scheme should utilise native or wildlife friendly species. Additional planting of vegetation and trees should be undertaken to the site boundaries. There is however not considered to be any need for specific mitigation for bat species.
Badgers	No indication of this species occurring on the site was found. No requirement for additional survey work is judged as necessary.
Birds With the exception of a few derogated pest or very common species, all wild birds are protected from killing, injuring or taking as well as taking, damaging or destroying nests in use or being built, and taking or destroying eggs. Some birds ("Schedule 1 species") are afforded special protection from intentional or reckless disturbance while building a nest, or when such a bird is in, on or near a nest containing eggs or young, or intentional or reckless disturbance of dependent young.	
Common breeding birds	No indication of past bird breeding at the site was found during the survey. Based on the findings of the survey trees and scrub on the boundaries of

	the site are unlikely to provide suitable nesting sites for birds. No additional follow up work is required.
Herpetofauna The grass snake, slow-worm, viviparous (common) lizard and adder (viper) are all protected from intentional or reckless killing and injury and commercial activities. The great crested newt and some rarer herpetofauna and their habitats are more strictly protected: intentional killing, injuring or taking; possessing (including parts or derivatives), intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection, and commercial activities are all prohibited.	
Slow-worm/ Common Lizard/ Amphibians	The site surrounding was found to be superficially suitable for commonly occurring reptile species. Common Lizard *(Lacerta vivipara)* and slow worms *(Anguis fragilis)* may find some of the adjacent habitat suitable for use. Given the aspect and quality of habitat on the site, the presence of reptiles on site is considered possible although unlikely. The maintenance of open bare ground prior to the commencement of work is considered sufficient to ensure that should these species occur in the locality they will be unlikely to occur on site during development even without further external intervention. There are no adjacent ponds or lakes which would not promote the sites use by amphibians. Consequently the presence of amphibians is considered unlikely. Any trenches or other excavations made on the sites which are left overnight should be left with shallow sides or ends so as to facilitate the escape of any reptiles or amphibians which may inadvertently become trapped.
Macro-invertebrates Several invertebrates enjoy varying degrees of legal protection including Atlantic stream crayfish, lesser silver water beetle, Roman snail, stag beetle and some butterflies, dragonflies, etc.	
Macro-invertebrates	An examination of the site and its habitats did not reveal any features to suggest that detailed survey for invertebrates is required.
Japanese knotweed (or related Fallopia spp.)	No Japanese knotweed was identified during the field survey on the site.
Invasive species There are an increasing number of these and some are notifiable or require elimination/prevention of spread.	
Weeds Act natives (common ragwort, creeping and spear	No significant numbers of species covered by the Weeds Act were noted on the sites.

thistles, curled and broad-leaved docks)	
Other exotics that may cause problems such as Rhododendron ponticum, Buddleia davidii.	No exotic species were noted which are of concern.

SUPPORTING INFORMATION

Scope and objectives

This report was commissioned KPP, in respect of the proposed redevelopment of the site. The objectives of this survey are:

1. To carry out an ecological assessment of the site to identify any habitats, species or features of nature conservation significance.

2. To undertake more in-depth surveys to asses the extent of any ecological risk identified.

3. To provide a concise written report of the results, making any appropriate recommendations to ensure compliance with wildlife law and recognised best practice.

General site description and methods

The site lies to the North of Bank End Road at grid reference SE 358 043. The site largely comprises an area of former woodland which has been cleared. **All of the land within site ownership was assessed.**

A qualified ecological consultant from Envirotech surveyed the site on the 21st February 2011 and 15th May 2014. The Surveyor, Mr Andrew Gardner, is a Chartered Surveyor, Chartered Environmentalist and full professional member of the Chartered Institute of Ecology and Environmental Management.

Methodology

A consultation with the site agents was made in February 2011 and in May 2014 following which the general site layout and adjacent environs were appraised. A search of the ecological records held by the NBN and the Sheffield City Ecology Unit was also made. In 2011 a request for information on the status of woodland adjacent to the site was made of Mr David Gill but no response was received.

There are several records of protected or notable species within 1.5km of the site on the datasets searched but no specific records for the site. The nearest records are for bird species such as House Sparrow and Blackbird (See Appendix).

There are no statutory or non-statutory sites in proximity to the development area. (See Appendix)

Based on site conditions, no additional records searches were made or considered necessary.

The level of survey effort used for each species was derived from our assessment of the likely presence and susceptibility of each species to disturbance from the proposed development as well as its local abundance and level of protection/importance.

Bats

A survey of the site was undertaken on the 22nd February 2011 and 15th May 2014. This was carried out in full accordance with the recommendations in NCC (1987), Mitchell-Jones (2004) and BCT (2012).

This comprised a close inspection of all trees and buildings at and adjacent to the site. Each tree and building was closely inspected (where possible) to check for signs of roosting bats such as droppings, staining and smells of urine, feeding remains (moth or other insect wings) and chattering or squeaking noises (in winter bats can still be active).

Trees were assessed for the suitability of bat roosting according to the number of niches present such as deep cavities, flaky or deeply fissured bark, hollow stems and location in relation to potential

foraging or commuting habitat. The orientation of the tree and level of shade or nearby obstruction to free flight were also considered as part of the evaluation process.

Buildings both in and adjacent to the development site, were assessed in respect of their potential for use by roosting bats according to the number of suitable gaps and cracks in the walls, eaves and roofs as well as the orientation and exposure of these locations.

In addition to the site surveys, the general habitat in the local area was evaluated in terms of its suitability to bats for foraging or commuting.

This progressive risk based approach to determining the absence of bats accords with the recommendations of BCT (2012).

All species of bat in the UK are protected under both UK and EU legislation. They are protected from deliberate disturbance, injury or killing. Any place they use for shelter is protected from alteration, obstruction or destruction, whether bats are present at the time or not.

Badger

The survey method was a scaled down version of the standard badger survey methodology as described in Harris et al (1989). In practice this comprised a generalized search of the whole site where suitable habitat was found, to a distance of 30m from the site boundaries, where this was possible, for feeding signs, habitual runs and footprints, hairs, droppings and latrines, scratching posts and actual setts.

Badgers are protected from deliberate disturbance when in an active sett and intentional killing or injury. The badger is the only UK species to be specifically covered by its own legislation the 1992 Protection of Badgers Act.

Birds

All nesting birds, other than pest species covered by specific exemptions where they are causing damage to livestock or crops, are protected from disturbance when actively nesting or rearing dependant young. A search for past nest sites and an assessment of the sites potential to support nesting birds would reveal the level of past use of the sites and likely impact of the development on nesting/ foraging opportunities for birds. The trees and buildings were all inspected as part of the other surveys which were undertaken.

Invertebrates

The survey for these species was based on assessing the habitat type and suitability of the sites. The time of year the survey was undertaken was conducive to locating these species.

It is our opinion that the above methodology was sufficient to make a risk assessment of site works and determine the likely effect on these species. As such we consider the above methodology constitutes reasonable effort in this case.

Plants

The vegetation composition of the site was assessed with key plant and tree species being identified.

Reptiles/ Amphibians

A survey for this species was based on assessing the habitat type and suitability of the sites. This comprised an assessment of satellite imagery for the site and surrounding area as well as comparison of the results from the records searches with habitat types. The general habitat at the site was evaluated in terms of its suitability to Reptiles and Amphibians for foraging or breeding.

Limitations

Whilst the first survey was conducted in February, the risk to species which would not be identifiable at the time of year the survey was undertaken is not considered significant and as such no significant limitations were identified.

The second survey in May 2014 was conducted at an optimal time of year.

RESULTS

Bats

A thorough inspection of all trees on and within the site boundaries in accordance with the methods prescribed by BCT (2012) considered potentially suitable for bat roosting revealed no potential roosting sites. All of the trees were classified as Category 3 (BCT -2012)

In addition to the trees which were assessed for their potential for roosting, the buildings adjacent to the site were also inspected and found to contain very few suitable bat roosting sites. The network of gardens and roads in the local area however provide extensive, low to moderate quality foraging and commuting habitat for a number of bat species.

Landscapes can be divided into four categories for use by bats; open, closed, edge and water. Each type of landscape category is suitable for use by a different combination of bat species. We would classify the landscape immediately adjacent (<1km) to the site as “edge”, “open” and “closed”

A review of aerial photography and classification of landscape types adjacent to the site would indicate that it is suitable for Common Pipistrelle *(Pipistrellus pipistrellus*), Soprano Pipistrelle *(Pipistrellus pygmaeus),* Whiskered *(Myotis mystacinus)*, Brandt's *(Myotis brandtii),* Noctule *(Nyctalus noctula),* and Leisler's Bat *(Nyctalus leisleri)*.

In accordance with BCT (2012) the habitat in the surrounding area was mapped by an experienced bat ecologist, Figure 3.

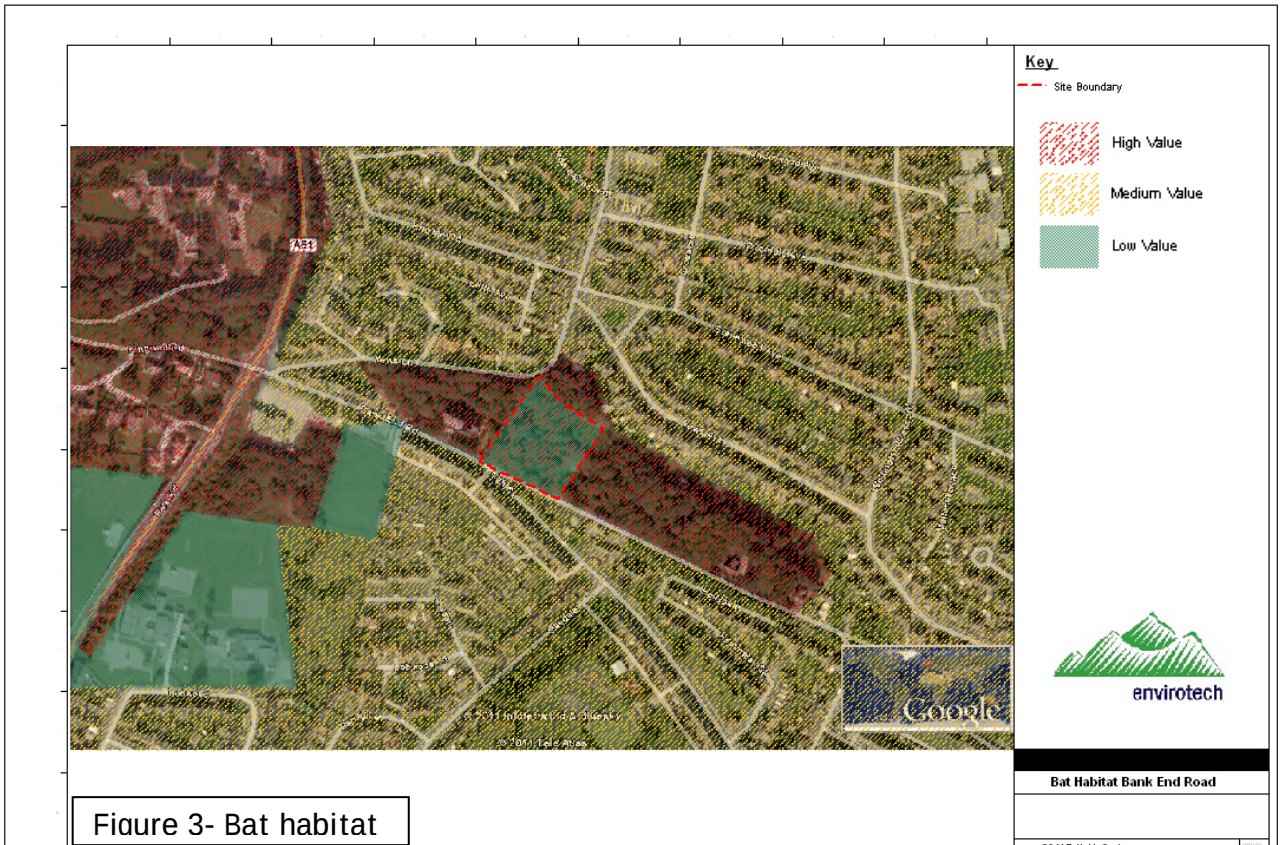


Figure 3- Bat habitat

There is high quality habitat over woodland surrounding the site. The site itself, as it is now devoid of vegetation, comprises low value habitat. Medium quality habitat occurs extensively in the local area. There are small areas of low quality habitat to the South.

No indication of roosting by bats at the site was found or is expected to occur. The habitat provided by the site is does not form part of a likely linear commuting route in the local landscape. The sites development may enhance its structural diversity and link it with medium and high quality habitat surrounding should the gardens be planted, preferably with native or wildlife friendly species.

Badger

A detailed inspection of all suitable habitat at the sites and to a distance of at least 30m from the site boundaries, where this was possible, revealed no signs of possible badger activity and no active setts were located.

A search for snuffle holes (badger feeding signs) was made across the entire site. No indication of badger feeding was found.

No clearly defined habitual paths were noted extending into and or out of the site or land surrounding.

Whilst badgers are therefore believed to occur within 2km of the site, it is reasonable to assume that they do not have an active sett within 30m of either site boundary.

The proposed development will not impact on any existing badger runs or setts. The porosity of the surrounding land to the passage of badgers will not be affected.

Birds

No old nest sites were located on and or in the hedges or trees on the sites during our survey. The nesting potential of the core development area is considered to be low.

Invertebrates

A survey for invertebrates including, but not limited to solitary and mining bees and wasps and certain butterflies was triggered as a result of this site lying in proximity to semi-natural vegetation. The method of survey for these species was to assess the habitat type affected by development and therefore its likely importance at the local level to any of these species.

Trees on and within the site boundaries contain comparatively little rotten wood in their canopies.

There are no high quality or significant numbers of flowering scrub or herb species present

We would regard the site as having some localised value in respect of invertebrates. We would not regard the site as being dominated by a substrate or plants with any more than local significance to invertebrates. The use of wildlife friendly flowering plant species in a landscaping plan would be beneficial for invertebrates adjacent to the site.

Plants

Details of the plant species found on site are included in the target notes. Only common plant species were located. The core development area is devoid of vegetation other than for three oak trees which have been significantly impacted by ground clearance.

Reptiles/ Amphibians

The site largely comprises rough pasture with a low structural diversity and has only a low value to reptiles and amphibians.

The site may provide suitable habitat for Common Lizard *(Lacerta vivipara)* and Slow Worms *(Anguis fragilis).* The potential for use of the site is however limited both in respect of the quality of substrate present and isolation and disturbance of the site.

The presence of these species is considered possible but the site would not support significant populations. Only basic precautionary mitigation is considered necessary.

No watercourses or ponds are located on or in proximity to the site which would provide suitable breeding sites for amphibians which could be affected by the proposal.

Significance of Survey Results

No conclusive signs of protected or otherwise important species were recorded on the development site. There is some albeit a very low potential for reptiles and bats to be slightly affected by the proposed development.

Bats are likely to use the surrounding landscape for foraging. The focus of this activity will be correlated with the tree lines and gardens. There is no roosting and only limited foraging potential on the site.

We judge the ecological significance of the vegetation at the site to be low in respect of its vegetative composition.

There is a low level of potential for use of the site by Common Lizard *(Lacerta vivipara)* and Slow worms *(Anguis fragilis)* but the risk to the species is considered to be very low.

No indications of use of the site or surrounding area by badgers could be found.

We consider the site has marginal potential for use by nesting birds, the site offers few suitable nesting opportunities.

PHOTOGRAPHS





The site is devoid of ground cover







Residual ruderal vegetation occurs along the site boundaries but is very limited in extent

Professional responsibility

This report has been commissioned and the actions of the surveyor have been made in accordance with the Code of Professional Conduct for the Chartered Institute of Ecology and Environmental Management. (www.ieem.org.uk) and the Royal Institution of Chartered Surveyors (www.rics.org.uk)

Accuracy of report

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

Quality and Environmental Assurance

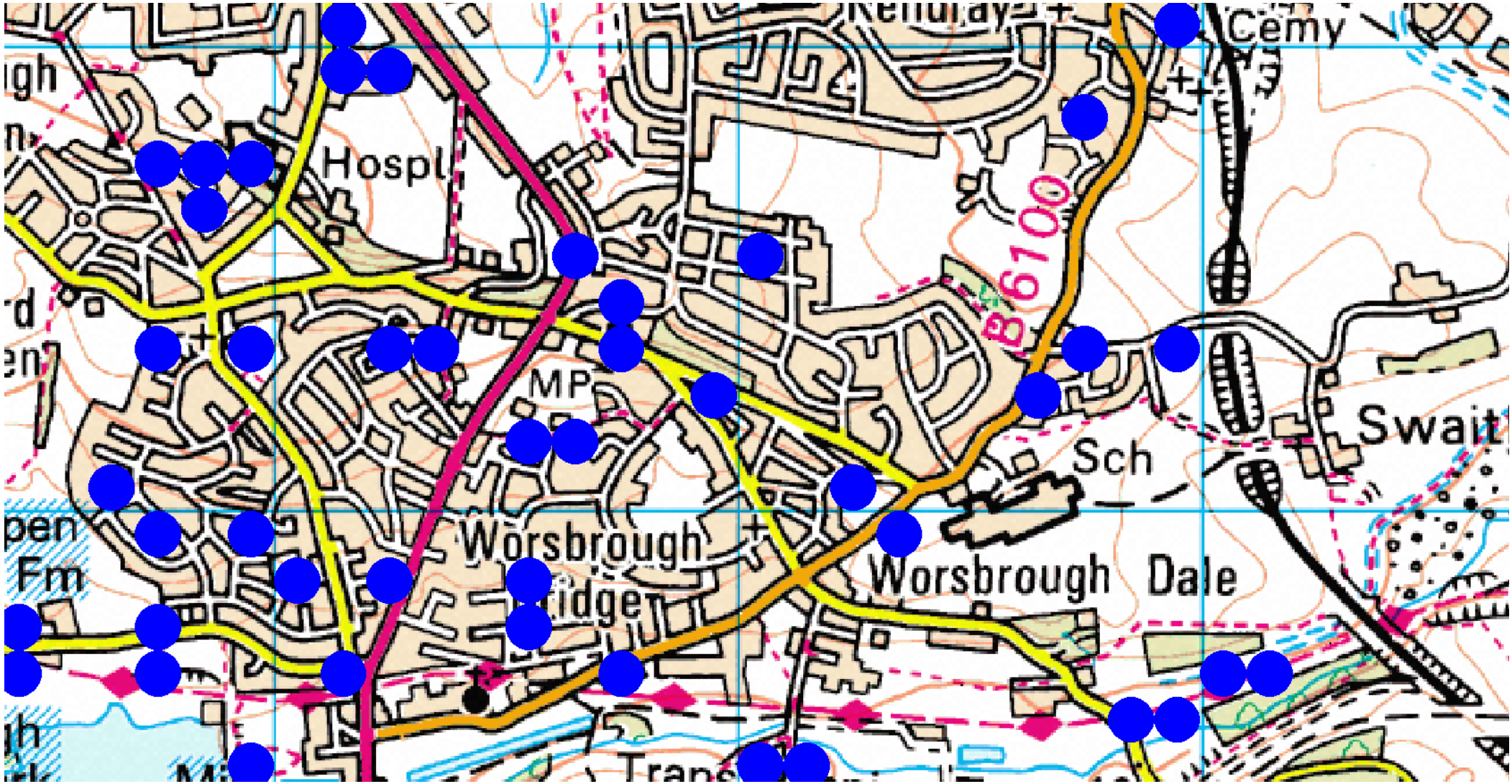
This report has been printed on recycled paper as part of our commitment to achieving both the ISO 9001 Quality Assurance and ISO 14001 Environmental Assurance standards. Envirotech have been awarded the Gold standard by the Cumbria Business Environmental Network for its Environmental management systems.

Signed



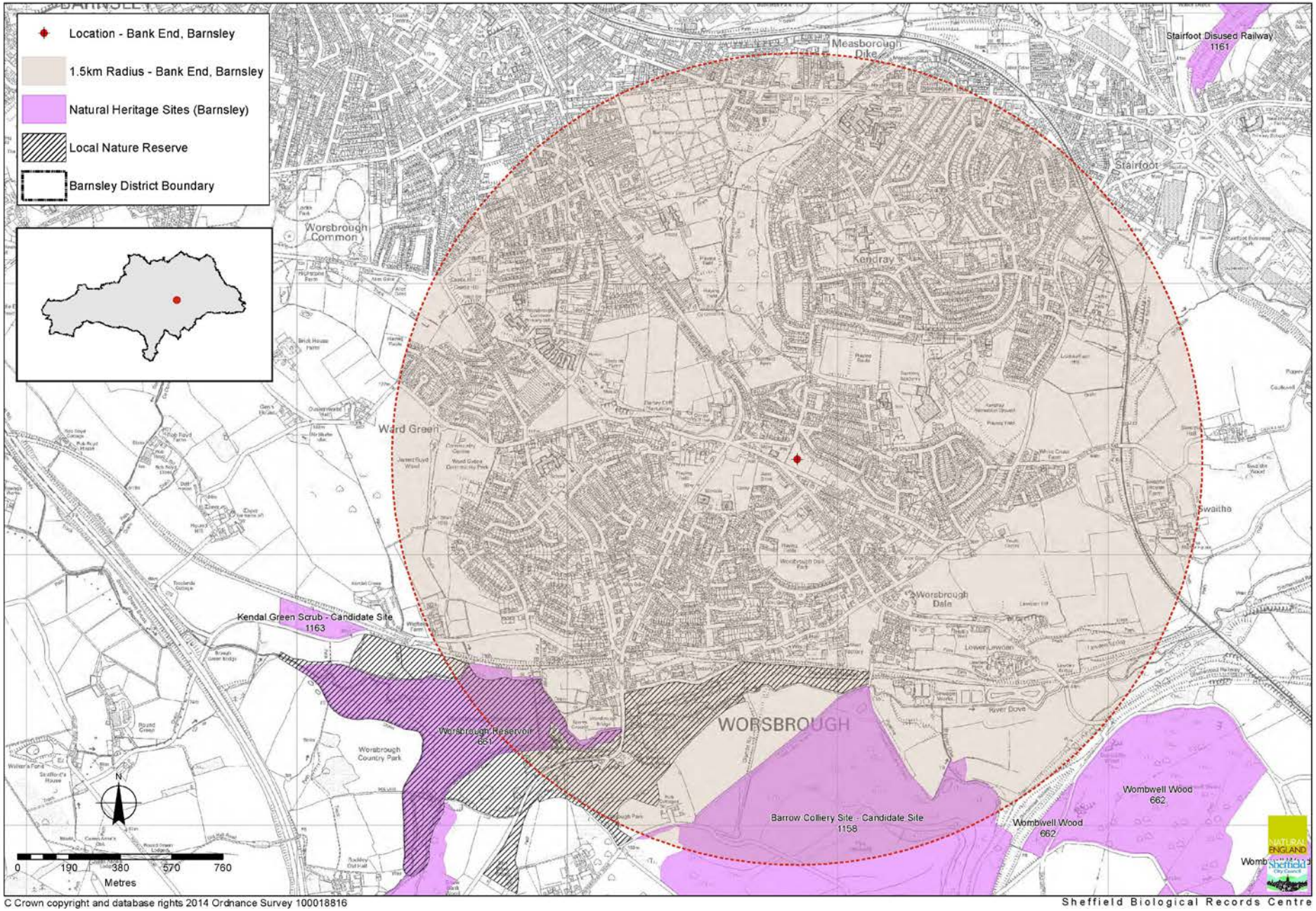
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Director Envirotech NW Ltd
Monday, 19 May 2014

Appendix


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Statutory and Non-statutory Nature Conservation Sites - Bank End, Barnsley

Date - 19 May 2014



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