

Ecological Appraisal
Raithwaite Hall,
Sandsend, Whitby.

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1.0 INTRODUCTION

Smeeden Foreman Partnership has been commissioned by Craydale Developments Ltd. to undertake an ecological appraisal of a proposed development site within the grounds of Raithwaite Hall, at Sandsend, near Whitby, North Yorkshire (grid reference NZ 869 115).

A data search of existing ecological information has been carried out, as well as an initial site walk-over survey, noting habitats and species present and the potential for protected species to be present. Recommendations for mitigation and or further survey have been made where appropriate.

The development proposals are to widen the existing access road, create car parking and a new road to the south of the existing access road and extend and convert the hall and associated outbuildings for hotel use. The proposals have been developed so as to retain the mature trees lining the existing access road.

2.0 SITE DESCRIPTION

The site is located in the settlement of Raithwaite, 1.2km to the south-east of Sandsend and 2.5km to the west of Whitby (see Figure 01: Site Location Plan). The site is on the eastern edge of a wooded valley which runs north east to the sea. The North York Moors National Park boundary dissects the site (see Figure 02: Site Designations and Species Records).

The site is comprised of grassland with scattered trees and scrub, plantation woodland, access road and buildings, hard-standing and gardens which encompass the Raithwaite Hall and associated outbuildings. The site includes a pond and part of a watercourse.



3.0 BASELINE INFORMATION

3.1 Methodology

The ecological interest of the site has been investigated by a combination of desk study, consultation and field survey.

Information was requested from the following organisations :-

- Natural England
- North and East Yorkshire Ecological Records Centre
- North Yorkshire County Council
- Scarborough Field Naturalists Society

The following sources of information were consulted :-

- www.magic.gov.uk (government web site for nature conservation and environmental information)
- Scarborough Biodiversity Action Plan
- National Biodiversity Network (NBN) Gateway
- Natural Areas Profile (English Nature)
- Scarborough Borough Local Plan (Adopted 1999)
- North Yorkshire County Structure Plan (Adopted 1995)
- North York Moors Local Plan (Adopted 2003)
- Aerial photographs



3.2 Nature Conservation Designated Sites

Statutory designations

There are no national or international protected sites for nature conservation, such as Special Areas for Conservation (SACs), Special Protection Areas (SPAs) or Sites of Special Scientific Interest (SSSIs).

The North York Moors National Park boundary dissects the site. In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well being of those living within them. The North York Moors National Park is designated for the conservation of landscape, culture and wildlife and is the largest expanse of continuous heather moorland in England.

Non-statutory designations

There are 5 SINCS (Sites of Importance for Nature Conservation) within 2.0km of the site :-

REF	NAME	GRIDREF	NOTES
NZ81-01	Uppang Beck to Sandsend Cliff	NZ870122	Calcareous and neutral grasslands, coastal fringe and mosaic habitats. Approximately 300 metres north of the site.
NZ81-02	Uppang	NZ881117	Calcareous and neutral grasslands, coastal fringe and mosaic habitats. Approximately 900 metres east of the site.
NZ81-03	Sandsend, Hardcliff	NZ860130	Calcareous and neutral grasslands, coastal fringe and mosaic habitats.

			Approximately 1.5km to the north west of the site.
NZ81-04	East Row Beck and Woodlands-Sandsend	NZ861124	Ancient woodland, semi-natural woodland and wildlife corridor function. Approximately 900 metres north west of the site.
NZ81-05	Raithwaite Gill/Dunsley Beck	NZ869121	Lowland acid grassland, neutral grassland, ancient and semi-natural woodland. The northernmost part of the proposed car-park lies within the SINC boundary.

SINCS are used in North Yorkshire to identify high quality wildlife sites which do not have statutory protection. They are locally valuable semi-natural habitats i.e. ancient woodland and grasslands, fens/mires, and often provide a habitat for rare or threatened species. The locations of these SINCS are shown on Figure 02: Site Designations and Species Records).

The North York Moors National Park has identified a number of conservation woodlands, moorland, farmland and other habitats which contribute to the fabric and quality of the National Park and whose 'natural beauty is important to conserve' (Policy NE3). Within 2km of the site, there are two areas of conservation woodland:

NAME	NOTES
Raithwaite Woods	Adjacent to the western boundary of the site.
Mulgrave Woods	Approximately 900 metres to the west of the site

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3.3 Existing species records

The following protected species records were supplied by the North & East Yorkshire Ecological Data Centre (see Figure 02 : Site Designations and Species Records) :-

SPECIES	NOTES
Water vole	Recorded in 1998 & 1999 approximately 1.1 km to the north-west of the site.
Otter	Sighting on the River Esk in 2001, nearest point 3km from the site.
Vesper bat	Summer roost recorded in 2003 in Sandsend, 1 km+ to the north west of the site.
Brown long-eared bat	Sighting in 1987, approximately 1.6 km to the north west of the site.
White beaked dolphin	Found dead in 1990 off coast north of Sandsend.

The National Biodiversity Network (NBN) Gateway (10 km grid square NZ81) contained records for inter alia, water vole, great crested newt, brown hare, badger and whiskered/Brandt's bat (since 1950).

The NEYEDC also provided records for Bithynian vetch, a nationally scarce species which has been recorded from 2 locations within 2km of the site.

3.4 Site Habitat Survey

A site walkover was carried out on 15th October 2007, noting broad habitat types (see Figure 03: Habitat Types and Appendix 01: Site Survey Target Notes) looking for any evidence of and potential for protected species. The survey was carried out at a time of year when many species are dormant or absent, particularly with regard to flora, breeding birds and invertebrates. In order to fully assess the species composition and quality of the habitats, further survey work should be carried out during the growing/active season, between April and September.

The proposed development site consists of semi-improved grassland which is becoming encroached by bracken, gorse and ruderal vegetation including nettles, thistles and rosebay willowherb. Parts of the grassland are wetter and are dominated by rushes and contain great willowherb, with some alder and willow scrub. Dense gorse scrub is encroaching from the north. There are a number of mature trees within the site, lining the existing road and scattered within the site, including Scot's Pine, Oak, Beech and Sycamore. There is a plantation of Scot's pine towards the southern end of the site near to Raithwaite Hall.

The gardens associated with Raithwaite Hall are landscaped and formally maintained with many ornamental plantings. There is a watercourse at the western end of the site which is dammed. The dam holds the water in a ponded area, allowing water to flow over in times of flood, but maintaining water levels in the pond area. Just after the dam the water flows through a culvert under a bridge and then falls through a steep sided channel to a weir, and then it flows north east along the bottom of a steeply sloping wooded valley (the Raithwaite Woods Conservation Woodland, which is an area of ancient semi-natural broadleaved woodland) towards the sea. The existing access road marks the western boundary of the site. Raithwaite woodland is outside of the site boundary adjacent to and on the west of the access road.

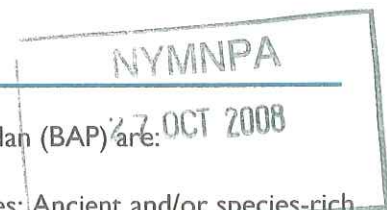
The habitats on site have varied biodiversity value. The scrub habitats and grassland are likely to provide opportunities for invertebrates and nesting birds. The buildings and trees on site have potential for roosting bats. The standing water has potential for amphibians and water vole and both it and the stream may attract otter. The grassland, woodland, scrub and gardens may provide opportunities for badger and reptiles.

3.5 Local Biodiversity Action Plan

Habitat types within the Scarborough Biodiversity Action Plan (BAP) are:

Woodland; Lowland wood pasture, parkland & ancient trees; Ancient and/or species-rich hedgerows; Unimproved neutral grassland; Calcareous grassland; Acidic grassland; Wetlands; Open water; Coastal wetlands; Coastal cliff mosaics; Rivers and streams; Buildings.

Of these, the site contains grassland, open water and buildings. Adjacent to the site is an area of woodland and a stream. The adjacent woodland is identified as ancient/semi-natural woodland on the magic website for nature conservation information. Whilst the site contains a number of mature trees, these would not fall within the category of ancient trees, nor does the site contain either wood pasture or parkland.



Species included within the Scarborough BAP are:

Water vole; Otter; Bats; Harbour porpoise; Tree and house sparrow; Reptiles; Great crested newt; White-clawed crayfish; Golden-shelled slug; Water violet; Rare Flowers.

Of these, the site could potentially support water vole, otter, bats, tree and house sparrow, reptiles, great crested newt, white-clawed crayfish, water violet and rare flowers.

The Scarborough BAP also contains guidance notes on problem species, gardens, farmland and development. Of these, problem species, gardens and development are relevant.

3.6 Natural Area Profile

Natural Areas provide a framework for nature conservation across England and inform the Biodiversity Action Planning Process. It is a framework developed by English Nature (now Natural England) and identifies a series of character areas across England, using a combination of physical attributes including wildlife, habitats, geology, land use, and culture. Each area has a distinctive nature conservation character and 'sense of place' (English Nature).

The site lies within the North York Moors and Hills Natural Area. The nearby Saltburn to Bridlington Coastal Natural Area relates to the coastal area, with the boundary extending to the inland limit of habitats with a coastal or estuarine influence and offshore to 12 miles.

The North York Moors Natural Areas profile recognises an important nature conservation resource, with a range of representative habitats and species reflecting the varied geology, topology and climate through the area. Geological, habitat and species interests are high. Characteristic habitats of the North York Moors Natural Area are moorland, fens and flushes, grassland (acid, neutral and calcareous), bracken, woodlands, parkland, rivers and standing water, windy pits (geological formations which provide important hibernacula for bats) and arable land. With each of the habitats there are a number of associated 'special' species, including Lady's slipper orchid, Killarney fern, otter, water vole, brown hare, bats, skylark, song thrush, great crested newt and pearl mussel, amongst others.

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3.7 Planning Policy

There are three local policy documents which are relevant to the site as the boundary of the North York Moors National Park passes through the site. The relevant plans are:

- North York Moors Local Plan (adopted 2003)
- North Yorkshire County Structure Plan (adopted 1995)
- Scarborough Borough Council Local Plan (adopted 1999)

3.7.1 North York Moors Local Plan

The North York Moors Local Plan includes policies which address conservation of the natural environment (chapter 3 of the Plan), in line with National Planning Guidance. Raithwaite Hall and its associated outbuildings and gardens are included within the

boundary of the National Park, whereas the existing access road from Sandsend Road and the adjacent grassland slopes are not. The relevant policies with regard to the proposed development within the National Park at Raithwaite Hall are:

NE 3 Conservation Map

Areas of moorland, woodland and coast have been identified within the Park for reasons of their natural beauty, character and special qualities. Any development proposals which may have an unacceptable impact on such areas will only be permitted if the reasons for development outweigh the intrinsic value of the area and there are no alternatives.

NE 4 Protected Species

This policy deals with statutorily protected species of plants and animals, stating that proposals which would result in the loss or unacceptable affect on such species will not be permitted unless there are imperative overriding reasons for development and there are no reasonable alternatives. The presence of such species is a material consideration in determination of proposals and if there are any potential impacts on such species, conditions and planning agreements may be put in place to secure appropriate mitigation measures for species protection.

NE 5 Protection of Other Sites, Species and Habitats

Where unacceptable effects on the integrity of other habitats, sites or features of importance to wildlife and individual species would result, development will only be permitted where the reasons for development outweigh the impacts and if there are no reasonable alternatives. This policy deals with non-statutory habitats which nonetheless provide a significant proportion of the Park's biodiversity resource.

NE6 Trees, Woodlands, Hedgerows and Walls

Proposals which would result directly or indirectly in unacceptable effects to trees, woodland, hedgerows or walls which are of landscape, amenity, nature conservation or historical value, or which would have an unacceptable effect on the landscape setting of such a feature will only be permitted if the reason for the development outweigh the impact on the value of the feature and if there are no reasonable alternatives, or if the feature represents a material threat to public safety or property.

NE 8 Rivers, Streams, Ponds and Wetland Habitats

Development proposals which would result in unacceptable effects to rivers, ponds, streams and wetlands which are of value to amenity, landscape character, nature conservation, cultural heritage or recreational use will only be permitted if the reasons for development outweigh the impacts and there are no reasonable alternatives.

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3.7.2 North Yorkshire County Structure Plan

Includes policies relating to the environment, and one policy dealing specifically with nature conservation:

E2 Development in the countryside outside of the National Parks, green belt etc will be permitted only where proposals are small scale, would not harm the character or nature conservation interest and if the proposal would benefit the rural economy.

3.7.3 Scarborough Borough Local Plan

This applies to the area outside of the National Park. In the context of the proposed development this relates to the proposed works to the existing access road. The Local Plan environment section considers new development, landscape protection, rural areas and farming, nature conservation, the built environment and heritage. Relevant policies for the proposed development of the site are:

E1 Protection of Open Countryside

Development will only be permitted where nature conservation interest and landscape setting have been considered and the development is located to avoid or minimise the

loss of the best/most versatile agricultural land or there is no alternative, or there will be benefit to the rural economy.

E7 Local Nature Conservation Sites

The nature conservation importance of all development sites will be considered and proposals which could adversely affect such interests will only be permitted if the benefits of the development outweigh the nature conservation importance of the site, or where planning conditions/agreements can be used to minimise or compensate for any harm arising. Loss or serious impacts on significant wildlife corridors will not be permitted.

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4.0 IMPLICATIONS / RECOMMENDATIONS

4.1 Nature Conservation Designated Sites

The site is dissected by the North York Moors National Park boundary, within which lie Raithwaite Hall and its associated gardens and outbuildings. The potential impacts on the landscape quality of the National Park are being considered separately, as part of the Landscape & Visual Assessment and so are not considered further here.

The existing access road, areas of hard-standing in front of Raithwaite Hall and the semi-improved grassland slope to the east of the access road are outside of the National Park boundary. There are five non statutory Sites of Importance for Nature Conservation (SINCs) within 2km of the site.

Part of the site lies within the Raithwaite Gill/Dunsley Beck SINC (NZ81-05). The SINC includes a large area of broadleaved, coniferous and mixed plantation woodland, dense scrub and some small areas of unimproved and semi-improved neutral grassland, unimproved and semi-improved acid grassland, amenity grassland, continuous bracken and tall ruderal vegetation. The existing informal car-park and the existing access road are included within the SINC boundary.

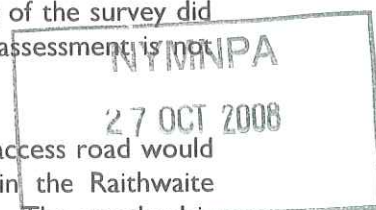
The northern-most corner of the site lies within the south-eastern corner of the SINC, within an area identified on the SINC map as semi-improved neutral grassland (see Figure 04). A small area of marshy grassland included within the SINC is also within the proposed development footprint.

The site survey in October 2007 revealed that the habitat appeared to have more acidic tendencies than neutral and was being encroached by gorse scrub from the north. The site survey was not undertaken at an ideal time of the year and further survey work during spring/summer would reveal a greater number of species which would aid a full characterisation of the grassland and its condition. Encroachment by bracken in some areas and ruderal vegetation in other areas was also evident and reflects the current unfavourable management regime. The small area of marshy grassland within the SINC although limited in extent is of biodiversity interest. Again, the timing of the survey did not reveal the complement of floristic species and a habitat quality assessment is not possible.

The proposed construction of car parking to the east of the existing access road would result in the loss of approximately 0.4 hectares of grassland within the Raithwaite Gill/Dunsley Beck SINC, including the small area of marshy grassland. The grassland is semi-improved and is degraded through previous road improvements, with evidence of nutrient enrichment in places, and encroachment by bracken and gorse elsewhere. No works are proposed to the west of the existing access road, and appropriate protection measures are recommended to minimise the risk of accidental damage and prevent incursion into this area by site machinery, materials or personnel.

The remainder of the valley slope is not included within the SINC, although the grassland is of similar composition. With appropriate management the quality of the retained area (0.9Ha) of grassland could be enhanced in mitigation for the loss of 0.4Ha of SINC grassland (0.8 Ha of grassland in total) to facilitate the development.

The Upgang Beck to Sandsend Cliff (NZ81-01) SINC is approximately 300 metres north of the site. The stream in the adjacent off-site woodland appears to be culverted under the Sandsend Road and doesn't flow into the Upgang Beck/Sandsend Cliff SINC.



Providing appropriate pollution control measures are put in place on site to protect the pond and stream in the westwern part of the site, no impacts are anticipated on the stream (which lies within the Raithwaite Gill/Dunsley Beck SINC – see above), or therefore, any sites, habitats or features further downstream.

Due to the limited nature of the development and the intervening topography and land use, no potential affects are anticipated on any of the other SINCS.

The North York Moors National Park has identified two areas of 'Conservation Woodland' within 2 km of the site. Mulgrave Woods lie 900 metres to the west of the site and no potential impacts are anticipated, due to the distance and intervening topography and the limited nature of the development proposals. Part of Raithwaite Woods lies adjacent to the site. Providing that appropriate tree protection measures and adequate site fencing to prevent incursion or accidental damage, are incorporated, there should be no impact on this area of woodland.

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4.2 Habitats

There are a number of habitats within the site which provide are of ecological interest. Potential species interests are discussed below in section 4.3. The table below identifies the habitats present on site, describes the condition of each and discusses the potential impacts and proposed mitigation measures for each habitat.

HABITAT	CONDITION	IMPACTS	MITIGATION
Semi-improved Grassland	Semi improved, becoming invaded by ruderal species	Loss of approx 0.8 Ha in area of new road & car-parking	Delimit working area with protective fencing to prevent accidental damage of adjacent habitat. Appropriate management of retained habitat to enhance condition
Scrub	Gorse scrub, alder & willow scrub plus some bramble	Loss of some scrub in areas of new road/car parking.	Delimit working area to prevent incursion or damage to retained habitat. New planting as part of landscape scheme.
Mature trees	Line of mature oak & beech trees along existing access road. Small groups and plantation of Scots pine	No direct impacts. Potential indirect impacts through compaction/damage to tree roots, etc.	Retain trees during works, ensuring tree protection plan is in place and protective fencing is erected to prevent accidental or indirect impacts via damage to roots, etc.
Plantation	Scots pine plantation	No direct impacts. Potential indirect impacts through compaction/damage to tree roots, etc.	Retain trees during works, ensuring tree protection plan is in place and protective fencing is erected to prevent accidental or indirect impacts via damage to roots, etc
Pond	Ornamental feature, culverted and partially dammed and containing large carp. Stone sides but some emergent vegetation	No direct impacts. Potential indirect impacts through spillage or during construction works.	Erect protective fencing to prevent damage during construction Ensure appropriate pollution prevention measures are in place.
Gardens	Landscaped gardens	Potential losses to facilitate building extensions	Ensure losses are limited to only that necessary to facilitate the development. New landscape

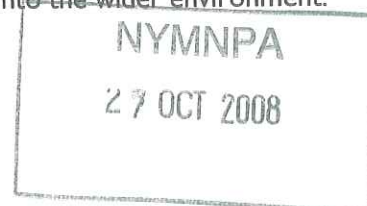
			planting should be incorporated.
Woodland (broadleaved)	Off site (west of existing access road)	No direct impacts. Potential indirect impacts via damage by construction traffic and materials	Ensure protective fencing erected along western edge of road to prevent storage or tipping of materials, incursion by machinery or personnel.
Stream	At western end of site downstream of pond.	No direct impacts. Potential indirect impacts during conversion of adjacent building or pollution from site	Ensure pollution prevention measures are in place and steps taken to ensure materials cannot enter the watercourse with adequate site fencing.

The proposed development would result in the loss of approximately 0.8 hectares of semi-improved grassland. The lower slope appear more degraded than the higher, unaffected parts of the slope, with bramble, gorse, nettles and willow herbs dominant and a strip of mown grass adjacent to the existing road. Wetter areas are dominated by rushes. Positive management of the retained grassland to enhance the condition of the habitat would provide some mitigation for the direct habitat losses. Part of the management would include control of invading species such as gorse and alder/willow scrub, brambles, bracken and other ruderal species. The gorse scrub contains occasional heather and this habitat has potential value, for nesting birds such as linnet and whinchat, but also for invertebrates and reptiles. The heather element of this habitat should be encouraged through rotational mowing, which will also help to control the spread of the gorse at the expense of a valuable grassland/heath mosaic. Creating strips of bare ground within the gorse will encourage the heather to seed and will provide a diverse structure in time. An appropriate low intensity grazing regime will discourage invasion by scrub and retain the grassland feature. A detailed survey during the growing season, April – September would allow full assessment of the habitat and provide information for the production of a management plan, identifying appropriate management techniques.

There would be losses of some patches of alder and willow scrub, bramble patches and small areas of gorse. New planting of native species around the car park areas could help to replace that which would be lost.

None of the mature trees are proposed for felling, and no works are proposed to either the standing/slow moving water in the garden area or the Scot's pine plantation, all of which are intended for retention. A tree protection plan should identify the limits of working to ensure that trees or their roots are not damaged during works. Protective fencing to delimit the working area should be erected prior to commencement of any works to ensure that no damage occurs to retained habitats, particularly where these are adjacent to the working area or construction traffic access routes or storage areas, including around the pond and stream to ensure no materials enter the water. Bunding and oil and grit interceptors should be put in place to prevent leakages or pollution entering the watercourse.

The landscape gardens within the site contain a number of exotic and ornamental species, including Rhododendron. These areas should continue to be managed to ensure that invasive non-native species are not allowed to escape into the wider environment.



4.3 Species

A variety of species have been recorded within the vicinity of the site and the site contains habitats and features with the potential to support protected species. The potential impacts on species and mitigation proposals are discussed below:

SPECIES	NOTES	IMPACT(S)	MITIGATION
Bats	Brown long-eared bat, whiskered/Brandt's bat and an unidentified species of bat have been recorded in the locality. There is potential for additional bat species. Trees and buildings provide potential for roosting, and mosaic of habitat types, including woodland, scrub, tree lines, water, etc. provide varied potential foraging resources and commuting routes.	Potential impact on roosts through works to buildings and trees. Disturbance of foraging resource through loss of grassland/scrub habitats.	Detailed survey of buildings and trees to assess potential for bats/roosts prior to any works being carried out. Licence will be required if roosts present. Ensure new landscape planting and management of retained habitats enhances foraging potential.
Water vole	Limited area of potentially suitable habitat in pond feature in garden area.	No impacts anticipated.	[Ensure works do not affect the pond]
Otter	The stream in the wooded valley with a large area of associated mature broadleaved woodland may offer potential resting opportunities for the species. The pond and stream may provide foraging opportunities for the species, but resting sites unlikely on site due to intensive management.	No impacts anticipated.	Survey of stream, pond and associated habitats to establish if otters are present on or within vicinity of the site - and any precautions/licences which may be required.
White-beaked dolphin	Found dead off the coast north of Sandsend.	None.	None.
Bithynian vetch	Records from 1993, approx 0.6 km to the south of the site and 0.9 km to north west of the site. Rare and vulnerable annual, found in rough grassland on coastal undercliffs and inland in open hedges, scrubby grassland and railway banks.	No records for the species on site, but some of the grassland/scrub areas may provide potential habitat.	Survey during spring/summer to establish whether species is present.
Great crested newt	Record from 1971 approx 1.3 km west of the site. The pond has some emergent vegetation but is mostly almost vertical sided (some parts of which are concrete and some cobble stone-faced). This pond contains large fish.	No direct impacts on pond, but potential impacts on terrestrial habitat if species is present.	Survey during April-June to establish whether great crested newt is present.
Brown hare	Record from 1972 within the NZ81 10km grid square. Grassland may provide interest for the species.	Potential small-scale loss of habitat.	None.
Badger	Recorded within the 10km grid square in 1968. Badger scat	Potential small scale loss of foraging	Best practice working methods (i.e. capping of

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	found off site next to boundary fence, within 50 metres of site boundary. No signs of species on site.	habitat. Potential harm if access onto construction site obtained.	pipes, covering of trenches, etc – see below)
Reptiles	Slow worm record 2km to east of the site in settlement of Westcliffe. Potential foraging and hibernating habitat on site (grassland, scrub, gardens)	Potential harm if clearance works undertaken during hibernation. Potential small-scale loss of habitat.	Best practice working methods (e.g. directional working, timing of operations – see below)
Breeding birds	Trees, scrub, grassland and gardens provide potential nesting opportunities for birds.	Potential loss of foraging habitat/nesting sites.	Ensure timing of clearance works avoid breeding season and landscaping/management of retained habitats provides enhancements.

Bat species

Bats and their roosts are afforded full legal protection under both UK and European legislation. The Conservation (Natural Habitats & c.) Regulations 1994 (as amended, 2007) transpose the Habitats Directive into UK law, making it an offence to-

- deliberately disturb a bat
- deliberately kill or capture a bat
- damage, destroy or obstruct access to a breeding site or resting place (note this applies to both deliberate and reckless actions).

The Wildlife and Countryside Act 1981 (as amended) (Schedule 5) made it an offence to

- intentionally kill, injure or take a bat
- damage, destroy or obstruct a bat roost *,
- disturb a bat at a roost *
- possess or control a bat or any part thereof
- sell, offer for sale, possess or transport for sale any bat or part thereof
- set traps for catching, killing or injuring bats
- possess articles for the purposes of committing offences against bats



[*= intentional and reckless offences covered]

This protection applies whether bats are present within the roost at the time or not. Bats are also included in the Local Biodiversity Action Plan.

Brown long-eared bats, whiskered/Brandt's bats and an unidentified species of bat have been recorded within 2km of the site. Brown long eared bats are fairly common and widely distributed through the UK, roosting frequently in old buildings with large open roof spaces, but also in tree holes and bat boxes. In winter, brown long-eared bats roost in caves, tunnels, icehouses, cellars and trees, often in very cold temperatures, just above freezing point. Whiskered/Brandt's bats are thought to be widely distributed throughout the UK, but their numbers are low and the species are thought vulnerable to extinction. Whiskered/Brandt's can be difficult to separate and are often grouped together. They have similar physical features, habitat preferences and roosting requirements, using houses, barns, churches and sometimes trees for summer roosting, and underground sites in the winter.

The buildings and trees on site present opportunities for roosting bats. A preliminary assessment of the trees on site revealed a number of potential roosts in the form of cracks, splits, peeling bark and other features which bats could exploit (see Appendix 02 for results). Detailed bat assessments of the buildings on site including

activity/emergence/re-entry surveys at dusk and dawn should be carried out in accordance with Bat Surveys – Good Practice Guidelines (Bat Conservation Trust, 2007), prior to any works to the buildings. If bats and or their roosts are present, any works which would contravene the protection afforded to them would require derogation from the provisions of the Habitats Regulations in the form of a licence from Natural England. Licences are only issued for actions (e.g. disturbance/destruction) where it can be demonstrated that:

1. There is no satisfactory alternative
2. The action will not be detrimental to the favourable conservation status of otters/bats in their natural range, and
3. There are overriding reasons of public interest including those of a social or economic nature or of beneficial consequence for the environment

Water vole (*Arvicola terrestris*)

Although water voles themselves are not legally protected, their places of shelter and protection are given protection under Section 9(4) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended in 1998). This makes it a legal offence to damage or destroy or obstruct access to any structure or place used by water voles for shelter or protection, or to disturb water voles while they are using such a place. There is no provision for licensing the intentional destruction of water vole burrows for development (English Nature, 2001).

There is a record for this species 1.1km to the north-west of the site, and there is a limited area of potentially suitable habitat in the ornamental pond. No works are proposed to the pond, which would affect the species or its habitat if it is present. To ensure accidental damage does not occur, protective fencing is recommended around the pond area.

Otter (*Lutra lutra*)

Otters are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and under the Conservation (Natural Habitats & c.) Regulations 1994 (as amended) which transposed the EC Habitats Directive 1992 into UK law. Under this legislation it is an offence to intentionally or recklessly kill, injure, capture - or to intentionally or recklessly disturb otters or damage, destroy or obstruct access to any place used by otters for shelter or protection.

There is a record for otter 3+km from the site on the River Esk, from 2001. The stream in the wooded valley to the north of the site may offer potential for this species. The woodland may provide suitable resting sites and the pond on site could provide foraging opportunities for otter. Proposed works in the western part of the site may have an impact on otter and its habitat, if present. Therefore a survey of the stream, woodland and pond area is recommended to establish the potential presence of otter and advise on any potential mitigation and licensing requirements. If works would contravene the protection afforded to otters- for example, if works would disturb an otter resting site, a derogation in the form of a licence would be required, as detailed above under 'bats'.

Bithynian Vetch (*Vicia bithynica*)

Bithynian vetch is afforded general protection under the Wildlife and Countryside Act 1981 (as amended) against intentional uprooting. Bithynian vetch is a nationally scarce species, classified as vulnerable by the World Conservation Union (IUCN) (2001).

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There are 2 records of this species within 2km of the site from 1993. The species could occur in some of the open grassland/scrub areas. A survey could be carried out to ascertain the presence of the species during April – September.

Great Crested Newt (*Triturus cristatus*)

Great crested newts are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation (Natural Habitats & c.) Regulations 1994 (as amended), which transposed the EC Habitats Directive into UK law. This legislative protection means that it is an offence to:

- Intentionally kill, take or capture great crested newts, their eggs or larvae
- Disturb a great crested newt
- Damage, destroy or obstruct access to a breeding site or resting place
- Sell, transport, exchange or offer for sale the animal (live or dead) or any part/derivative thereof

There is an historic (1971) record for great crested newt approximately 1.3km to the west of the site. Although as a general guide, suitable habitats within 250 metres of a breeding pond are likely to be used most frequently (English Nature, 2001), dispersal distances of 1.2km have been recorded (Oldham, 1994). There is an ornamental pond within the development site and although the pond is not affected by development works, if great crested newts are present, the other site works may impact on the terrestrial habitat for the species. Great crested newts spend most of their lives on the land, only returning to ponds to breed. Woodland, hedgerows, scrub, rough grassland are all used by great crested newts for foraging, commuting such habitats also provide refuges for resting and hibernating.

It is recommended that amphibian surveys of the pond be carried out during April – June to establish potential presence of great crested newts, in accordance with published survey guidelines (English Nature, 2001).

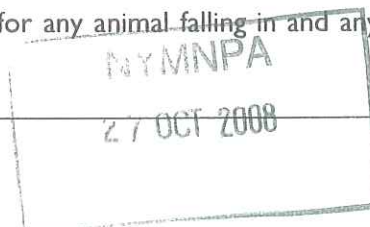
Brown Hare (*Lepus europaeus*)

Brown hares receive limited legal protection through the Ground Game Act 1880, the Protection of Animals Act 1911 and the Hunting Act 2004. Brown hare is a priority species in the UK Biodiversity Action Plan due to its decline. Brown hare may be present locally (last record 1972). The retention of the majority of the grassland, and enhancement of this grassland through appropriate management to increase its biodiversity value would benefit the brown hare, which require diverse foraging resources throughout the year.

Badger (*Meles meles*)

Badgers and their setts are protected by the Protection of Badgers Act 1992. Under this act it is illegal to: (1) wilfully kill, injure, take a badger or attempt to do so, (2) cruelly ill-treat a badger or (3) interfere with a sett, including disturbing a badger while occupying a sett.

No records of badger were provided by NEYEDC and the most recent record on the NBN Gateway is from 1968. Badger scat was found along a fence line approximately 50 metres from the site boundary. No evidence of setts or badger presence was found on site, and other than potential small scale loss of foraging habitat, no effects are anticipated on this species. It is recommended that a precautionary approach to site works be adopted, to ensure that any animals which may stray onto the working site are not harmed. During site works, any trenches must be covered at the end of each working day, or include a means of escape for any animal falling in and any temporarily



exposed open pipe systems should be capped in such a way as to prevent badgers gaining access.

Breeding birds

The Wildlife and Countryside Act 1981 (as amended) gives protection to all wild nesting birds, which makes it an offence to intentionally kill, injure, or take any wild bird or their eggs or nests. This protection applies from the moment the nest is being built. Additional protection against disturbance on the nest or of dependant young is provided for birds included on Schedule 1.

The proposed development would result in the loss of some small areas of gorse, alder and willow scrub, bramble patches and ornamental garden vegetation, all of which are likely to support nesting birds during the breeding season. No vegetation works should therefore be carried out during the bird nesting season, which runs from March-August inclusive – unless first checked by an experienced ecologist to confirm that no nests are present. The buildings may also provide opportunities for nesting birds (as well as bats, see above) and so any works to buildings should be carried out in accordance with the advice given for vegetation above, although the buildings may also be subject to specific timing of works, pending the results of bat surveys and subject to any licensing requirements.

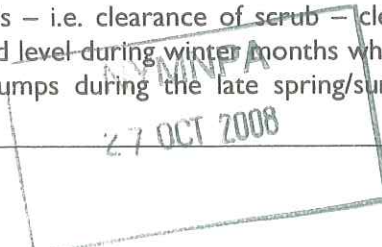
The proposed development would allow for the retention of larger areas of biodiversity value, including all of the mature trees, as well as semi-improved grassland, scrub, the pond and garden areas. The landscape proposals for the site should include planting of varied species (native species of local origin adjacent to the semi-natural habitats) which will provide additional foraging, cover and nesting opportunities for nesting birds. A variety of flowering and berry-bearing trees, shrubs and plants will be attractive to a wide range of species. Enhancement of the retained grassland to achieve a greater diversity of component species, increased sward height etc will provide additional opportunities for ground nesting birds in the future. Bird boxes could also be included within the landscape proposals for the site to provide additional nesting opportunities, within the final development.

Reptiles

There are 3 native snakes (grass snake, adder and smooth snake) and 3 native lizards (sand lizard, common lizard and slow worm) native to the UK. Smooth snake and sand lizard are very rare and are afforded legal protection under both UK and European law against killing, injury and disturbance and their habitats are afforded protection against damage or destruction. Grass snake, adder, common lizard and slow worm are afforded protection under the Wildlife and Countryside Act 1981 (as amended) against intentional killing, injury and sale.

The grassland, pond, scrub habitats have the potential to support grass snake, adder, slow worm and common lizard, but the site is outside the range of either smooth snake or sand lizard. Best practice working methods with regard to reptiles are recommended, which include:

- Clearance of vegetation during the active season so that reptiles are active and able to escape.
- Directional working (i.e. work from the road eastwards), so that any reptiles present can escape to safe areas outside of the site.
- Where vegetation clearance during the active season would conflict with the protection afforded to breeding birds – i.e. clearance of scrub – clear areas of potential habitat to 2cm above ground level during winter months when birds are not breeding and then clear out stumps during the late spring/summer, or if



grassland, maintain short sward height during winter and throughout spring/summer to keep the habitat unattractive.

- Do not clear piles of rubble or logs etc during the winter when hibernating animals may present.

4.4 Local Biodiversity Action Plan

The site contains three habitats identified in the Scarborough Biodiversity Action Plan: acid grassland, open water and buildings. The proposed development would result in the loss of approximately 0.8 hectares of semi-improved grassland. However an area of 0.9 hectares is to be retained and would be brought into favourable management, enhancing the quality of this habitat for the benefit of biodiversity.

No works are proposed to the pond in the garden area. This pond will be retained and managed as a feature of the gardens.

Extensions and conversions are planned with regard to the existing buildings, which may have an impact on breeding birds and bat species (see above at 4.3). Bat assessments and survey works should be carried out of all of the buildings to which works are planned, to inform the works and identify any requirements for a licence, should bats/roosts be present.

4.5 Natural Area Profile

The site contains and is adjacent to a number of habitats which are characteristic of the North York Moors Natural Area; grassland, woodland, bracken, rivers and standing water. The proposed development would impact directly on and result in the loss of 0.8Ha of grassland. An additional 0.9 hectares of grassland however, would be brought into beneficial conservation management which would enhance the existing habitat and aim to increase nature conservation interest of the grassland.

4.6 Planning Policy

There are three relevant local policy plans against which nature conservation issues with regard to the proposed development have been considered:

North York Moors Local Plan

NE 3 Conservation Map

There are no identified conservation woodlands, moorlands or coastal areas within the site but there is an area of conservation woodland adjacent to part of the development site boundary. This is to be retained and protected during development works.

NE 4 Protected Species

The development of the site may potentially impact on a number of statutorily protected species. These potential impacts have been discussed above (section 4.3) and recommendations made with regard to mitigation and requirements for further survey, where appropriate.

NE 5 Protection of Other Sites, Species and Habitats

The site includes a small part of the Raithwaite Gill/Dunsley Beck SINC, 0.4Ha of which would be lost to the development proposals. This small area of semi-improved grassland is not an integral part of the SINC and would not threaten the integrity of the SINC and

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its' component habitats. The favourable management of an area of adjacent grassland to enhance its conservation value is proposed in mitigation for this loss.

NE6 Trees, Woodlands, Hedgerows and Walls

There are a number of trees within the site boundary, but no felling is proposed as part of the development and a tree protection plan has been prepared in order to ensure no direct or indirect impacts on trees of landscape and nature conservation value occur.

NE 8 Rivers, Streams, Ponds and Wetland Habitats

There is a pond within the site boundary and a stream adjacent to the site. No development is proposed which would directly affect these features and appropriate pollution control measures to ensure such features are protected from potential indirect impacts are recommended.

North Yorkshire County Structure Plan

E2 Development in the countryside outside of the National Parks, green belt etc.

The proposals are small scale and nature conservation interests are being considered as part of the development, with mitigation proposals to avoid or minimise potential impacts of the scheme.

Scarborough Borough Local Plan

E1 Protection of Open Countryside

The development would result in the loss of a limited area of semi-improved grassland, but retention and conservation management of a larger area of grassland mitigates for this loss. The refurbishment and extensions to Raithwaite Hall and buildings may have an impact on bats which needs to be assessed following surveys at an appropriate time of the year. Further species surveys (great crested newts and otter) will identify whether these species are present and whether any mitigation and or licences are required.

E7 Local Nature Conservation Sites

The Raithwaite Gill/Dunsley Beck Site of Importance for Nature Conservation lies partly within the development footprint (0.4Ha of the SINC would be lost). The remaining grassland not affected by the proposals should be brought into favourable conservation management to enhance the nature conservation value of the habitat. The proposals do not impinge on any wildlife corridors and mitigation is proposed to avoid or minimise any potential affects on wildlife, such as breeding birds and reptiles or adjacent habitats, such as the broadleaved woodland and pond.



5.0 RECOMMENDATIONS

1. Further survey work should be carried out to ascertain the presence and status of the following species:
 - Bats (during April-October)
 - Great crested newts (during March-June)
 - Otter (Any time of the year, except following floods)
 - Grassland habitat, including search for Bithynian vetch (April-Sept.)
2. Protective fencing should be erected around the site to protect adjacent and retained habitats from incursion or accidental damage by site machinery, materials or personnel. Signage should be placed on fences to identify retained areas as sensitive/important ecological habitats.
3. Pollution control measures, including bunding, oil and grit interceptors and a surface water drainage scheme should be incorporated to ensure the pond, stream and other valuable habitats are not polluted during or following site works.
4. A tree protection plan should be drawn up to ensure that trees are not accidentally damaged or indirectly affected during the course of works.
5. A habitat management plan should be drawn up (following the additional survey work), detailing conservation objectives and appropriate management techniques and timings for the retained grassland, including stocking densities/mowing regimes, control strategies for invasive/inappropriate species, inclusion of bird/bat boxes etc.
6. The landscape proposals for the site should include new plantings to include a variety of flowering and berry-bearing trees, shrubs and plants to provide diverse foraging areas and cover for a range of species. Areas adjacent to semi-natural habitats should be planted with non-invasive native species of local origin (locally sourced seed wherever possible).
7. Best practice working methods should be employed with regard to reptiles i.e. directional working and timing of works (see section 4.3 for full details).
8. It is not anticipated the re-development of the site would have an impact on badgers and no evidence of the species was found on site. However, there is potential foraging habitat for the species and therefore a precautionary approach is recommended:
 - During site works, any trenches must be covered at the end of each working day, or include a means of escape for any animal falling in
 - Any temporarily exposed open pipe systems should be capped in such a way as to prevent badgers gaining access.
9. No vegetation clearance should be carried out during the bird nesting season, which runs from March-August inclusive unless first checked by an experienced ecologist confirming that no nesting birds are present (and having had regard to requirements for protecting reptiles).
10. No building demolition should take place during the breeding bird season, unless first checked by an experienced ecologist confirming that nesting birds are not present (having had regard to requirements for bat licensing and or mitigation).



FIGURES

FIGURE 01: Site Location Plan

FIGURE 02: Site Designations & Species Records

FIGURE 03: Habitat Types

FIGURE 04: Raithwaite Gill/Dunsley Beck SINC Plan



APPENDICES

APPENDIX 01: Target Notes from Site Survey, 2007

APPENDIX 02: Preliminary Assessment – Bat Roost Potential (Trees)

APPENDIX 03: Guidelines for the Treatment of Trees in Relation to Bats



APPENDIX 01: Site Survey Target Notes

REF	DESCRIPTION
TN 1	Dense stand of <i>Ulex europaeus</i> with occasional <i>Calluna vulgaris</i>
TN 2	Existing car park – crushed stone
TN 3	Semi improved grassland - yarrow, bird's-foot trefoil, clover, false oat grass, kidney vetch, thistles, plantain, nettles, occasional gorse
TN 4	Wetter area; patches of jointed rush dominant, greater willowherb present
TN 5	Landscaped area – turf with pampass grass
TN 6	Alder scrub
TN 7	Bramble scrub
TN 8	Scot's pine plantation
TN 9	Orchard
TN 10	Landscaped gardens, including <i>Rhododendron ponticum</i> , <i>Prunus laurocerasus</i> , many ornamental plantings, turf, etc.
TN 11	Dammed watercourse; standing water. Engineered, vertical sides but at southern end, vegetation encroachment and build up of vegetative material from sides. Large carp present.
TN 12	Running water. Engineered weir.
TN 13	Large stand of <i>Rhododendron ponticum</i>
TN 14	Mixed woodland, including oak, beech, leylandii, rhododendron, etc.



APPENDIX 02: Preliminary Assessment – Bat Roost Potential (Trees)

Tree No.	Species	Roosting Potential	Notes	Recommendation (if tree works required)
T1	Sycamore.	Moderate-High.	3 Cavities at 3-4m facing south-west. Some limited peeling bark.	Detailed inspection of cavity/dawn dusk emergence surveys in active season.
T2	Scots pine.	Moderate-High.	Leaning, leader contorted, included bark. Rotten wood at base (east). Peeling bark. Dead wood on remaining limb. Cracks and splits on branch ends.	Dawn/dusk emergence surveys in active season.
T3	Dead pine.	Moderate-High.	Peeling bark. Large cavity at top.	Detailed inspection of cavity/dawn dusk emergence surveys in active season.
T4	Scots pine.	Moderate.	Badly leaning limb, included bark. Peeling bark.	Best practice (see appendix 03).
T5	Scots pine.	Moderate.	Some dead wood in crown, peeling bark.	Best practice (see appendix 03).
T6	Sycamore.	Moderate-High.	Young. Dead wood and small cavities. Cavities facing South with no cobwebs at 2.5m.	Detailed inspection of cavities/dawn dusk emergence surveys in active season.
T7	Sycamore.	Moderate-High.	North facing cavity at 5m. Small amount of dead wood. Smaller cavities also present.	Detailed inspection of cavities/dawn dusk emergence surveys in active season.
T8	Sycamore.	Moderate.	Small cavity facing North at 7m. Small dead branch in crown.	Detailed inspection of cavity/dawn dusk emergence surveys in active season.
T9	Sycamore.	Moderate.	Major limb missing – torn from 1m – no upward cavities. Smooth barked. Potential cavities from ex branches higher up trunk.	Investigate potential cavities/dawn dusk emergence surveys in active season.
T10	Sycamore.	Moderate.	Peeling bark. Cavities. Branch split at 6m upwards facing North.	Detailed inspection of cavities/dawn dusk emergence surveys in active season.
T11	Sycamore.	Moderate-High.	Ex branch cavity at 4m facing South West. Deadwood in crown. Dying tree.	Detailed inspection of cavity/dawn dusk emergence surveys in active season.
T12	Sycamore.	Low.	Small ex-branch cavities facing North West. Smooth bark. Good form and condition.	None.
T13	Sycamore.	Moderate.	Main stem extensive rot from ground level to top. Dead branches. Decay throughout.	Dawn/dusk emergence surveys.
T14	Alder.	Low.	Cavities at South East. Some peeling bark in places. Some epicormic growth (not dense).	Best practice (see appendix 03).
T15	Scots pine.	Low.	Some bark wounds and bark plates. Some dead small branches on trunk.	Best practice (see appendix 03).
T16	Alder.	Low.	Split facing South at 2.5. Small cavities elsewhere.	Best practice (see appendix 03).
T17	Alder.	Low.	Some small cavities. Some lifted bark.	Best practice (see appendix 03).

T18	Alder.	Low.	Small cavity at base. Some lifted but hardened bark.	Best practice (see appendix 03).
T19	Alder.	Low.	Hardened peeling bark. Deadwood in crown. 1 major limb dead (South).	Best practice (see appendix 03).
T20	Hybrid black poplar.	Low.	Fallen. Cracked and hardened bark, no visible cavities. Vertical re-growth from fallen stem.	Best practice (see appendix 03).
T21	Scots pine.	Low.	Some bark damage, some peeling bark. Limited potential. Small broken limbs at top.	Best practice (see appendix 03).
T22	Scots pine.	Low.	Some bark damage, some peeling bark. Limited potential. Small broken limbs at top.	Best practice (see appendix 03).
T23	Beech.	Low-Moderate.	Ex-branch cavities facing East at 2m and 4m. Some small deadwood. Some staining – but likely is due to water infiltration.	Investigate cavities/ Best practice (see appendix 03).
T24	Beech.	Moderate.	Extensive die-back in top of crown. Deadwood cavity at 2m to South (may go upwards). Crossing branch to West at 2.5m. Small dead branch to East. Small split facing North at 2.5m.	Detailed inspection of cavity/dawn dusk emergence surveys in active season.
T25	Sycamore.	Low-Moderate.	Some peeling bark – crossed branches 5m facing South – some staining below crossing. West facing cavity at 2.5m (small; hard to tell if it penetrates).	Investigate cavity.
T26	Sycamore.	Negligible.	No visible cavities or rot holes etc.	None.
T27	Sycamore.	Moderate.	Various ex-branch cavities on main stem (5m upwards) and main branches. Small split branch.	Detailed inspection of cavities/dawn dusk emergence surveys in active season.
T28	Sycamore.	Moderate.	Some limited peeling bark. Split branched and bark wounds 5m upwards facing North. Some small branch snags in crown or facing South West. Staining below ex-branch hole at 5m Facing South West.	Detailed inspection of ex-branch hole/dawn dusk emergence surveys in active season.
T29	Sycamore.	Moderate-High.	Peeling bark and ex-branch hole facing South West on 1 st branch (at 5m) with some staining on bottom of cavity visible. Potential upwards cavity. Dead branch snag to South East on main leader at 8m upwards. Staining inseider 2 ex-branch holes facing South at 3m and 4m. Many	Detailed inspection of cavities/dawn dusk emergence surveys in active season.

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			cavities.	
T30	Sycamore.	Low.	Fairly smooth bark. Some young ivy on North side up to 4m.	None.
T31	Sycamore.	Negligible.	Multi-stemmed. Smooth barked. Young.	None.
T32	Goat willow.	Low.	Some small splits. Epicormic growth at base.	Best practice (see appendix 03).
T33	Sycamore.	Negligible.	Multi-stemmed. Some peeled bark and exposed wood.	None.
G1	Group of Alder.	Moderate.	Rot holes, splits, decay evident. Some deadwood.	Detailed inspection of cavities/dawn dusk emergence surveys in active season.
G2	Group of pines.	Low.	Some dead wood, peeling bark on older specimens. Dense covering of ivy on tree at of hill (South Easterly mostly).	Best practice (see appendix 03).
G3.	Group of pine.	Low.	Some mature ivy to 5-6m. Some dead branches (small).	Best practice (see appendix 03).

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APPENDIX 03: Guidelines for the Treatment of Trees in Relation to Bats

The following guidelines are based on the advice given by the Bat Conservation Trust (1997) *Bats and trees: A guide to the management of trees* - and should be applied in all situations where the presence of roosting bats is possible, but where reasonable survey effort has not revealed any evidence of bats or roosts:

- Carry out works in the period September to November inclusive (or less suitably during March to May, although this may interfere with nesting birds - see below). This time-frame avoids the summer period but also reduces the probability of encountering hibernating bats (the periods at the start and end of winter are preferable for works to trees, as temperatures will not be as low (when bats would be in deep torpor and unable to wake); any transitional-roosting bats which are present should be active enough to fly out and escape;
- Cutting in winter reduces the probability of encountering bats, but may mean that any bats which are encountered will be torpid and hence more likely to suffer death and injury;
- Carry out the minimum necessary cutting work, and where felling, leave as much as possible of the trunk standing; where trunks must be removed, fell these in sections;
- Make cuts as far as possible above or below any suspected cavities (i.e. cut through solid timber rather than through cavities which may contain bats);
- Lower any timber suspected of containing bats gently to the ground; leave any such timber on the ground for 48 hours before disposal to allow any bats time to leave;
- Check any weight-bearing timber tears or splits for roosting bats before cutting, otherwise the split may close when weight is released, crushing any bats which may be present;
- Consider re-routing pedestrian access to avoid dangerous trees as an alternative to felling;
- Consider the use of guys, slings and props as an alternative to felling;
- If bats are found during tree works, all work must cease until suitable expert advice has been sought from Natural England; consultation may be required and mitigation measures set in place to ensure that the works proceed without causing further avoidable harm to bats.

All species of bats in Britain are afforded the highest level of statutory protection against harm or disturbance that is available under UK law. Bat roosts are protected whether bats are present or not. Where roost(s) or bats are present, a licence from Natural England must be obtained before works commence.

Works affecting trees, hedgerows and especially the clearance of scrub, should avoid the main bird nesting period (i.e. approximately March to August), as almost all species of British birds, and their nests, eggs and young, are also afforded statutory protection against killing, injury or taking under the Wildlife and Countryside Act 1981 (as amended). Schedule 1 species have additional protection which makes disturbance an additional offence. Where works have to take place during the nesting period they should be subject to prior survey to ensure that no nesting birds are present in the areas to be cleared, and kept to the minimum necessary.

