Land Adjacent to Scraper Lane, Stainsacre

Extended Phase 1 Survey Report

September 2011

Report For:

Ian Simpson
Senior Development Officer
Sanctuary Housing Association
Sanctuary House
Unit 15
Killingbeck Drive
Leeds
LS14 6UF

Doc Ref: ECN/11/037 Draft v1

Prepared by: Catherine Taylor AIEEM
Approved by: Paul Salmon AIEMA
Date: 9th September 2011

eco NORTH
Ecological Consultants

EcoNorth Ltd.

Garden House

St. Nicholas Park

Gosforth

Newcastle upon Tyne

Tyne and Wear

NE3 3XT

Registered in England and Wales - Company Number 2274277.

Field Investigations and Data

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Where any data supplied by the client or from other sources have been used it has been assumed that the information is correct. No responsibility can be accepted by EcoNorth Ltd for inaccuracies in the data supplied by any other party.

Summary

EcoNorth Ltd was commissioned by Sanctuary Housing Association to undertake a biodiversity survey of land adjacent to Scraper Lane, Stainsacre, North Yorkshire (Grid Ref NZ911 085) in advance of the proposed development of 3 two bed homes and 3 three bed homes with associated gardens, access road, amenities and landscaping on a 0.22 hectare site.

The site was surveyed by Catherine Taylor (AIEEM) on the 22nd August 2011. The site survey included a phase 1 habitat survey, extended to identify use of the site by protected species such as badgers, bats and breeding birds.

The site was found to predominantly comprise of improved grassland of low ecological value dominated by grasses such as perennial rye grass *Lolium perenne*, cocks-foot *Dactylis glomerata*, and Yorkshire fog *Holcus lanatus* with white clover *Trifolium repens*. Scattered tall ruderal plants such as creeping thistle *Cirsium arvense* were found in places beneath the hedgerow and on the disused railway embankment bordering the site. The hedgerow is dominated by Hawthorn *Crataegus monogyna* with scattered mature trees especially along the south eastern section.

No evidence of protected species was found, however it was considered possible that certain species may utilise the hedgerows for feeding and foraging (eg bats and badgers). No badger sets were identified within 50m of the site (where access was permitted). Breeding birds are also likely to utilise the site's hedgerows.

Based on this assessment with the information currently available there are not considered to be any significant ecological constraints to the proposed development and the site is overall, of low ecological value.

A series of recommendations for ecological enhancement within the proposed development are set out and it is recommended that the only ecological features of note, the boundary hedgerows, are retained and improved within the development.

Contents

1.0 Introduction

1.1 Background

EcoNorth Ltd was commissioned by Sanctuary Housing Association to undertake a biodiversity survey of 0.22 hectares of land at adjacent to Scraper Lane, Stainsacre, North Yorkshire (Grid Ref NZ911 085) in advance of a proposed development of 3x two bed homes and 3x three bed homes with associated gardens, access road, amenities and landscaping.

This report sets out the results of the ecological survey of the site along with recommendations for ecological enhancement of the site in line with Planning Policy Statement 9: Biodiversity and Geological Conservation, which states that:

"When considering proposals, local planning authorities should maximise such opportunities [for building in biodiversity as part of good design] in and around developments……."

1.2 Site Context

The site lies within the North Yorkshire Moors National Park and currently comprises of an agricultural pasture field bordered to the north by a disused railway line and surrounded on three sides by hedgerows. The site is located on the north western outskirts of Stainsacre, bounded to the west by further agricultural land, to the north by agricultural fields and buildings, to the south by a public highway and to the east by residential properties. Figure 1.1 identifies the site's location.

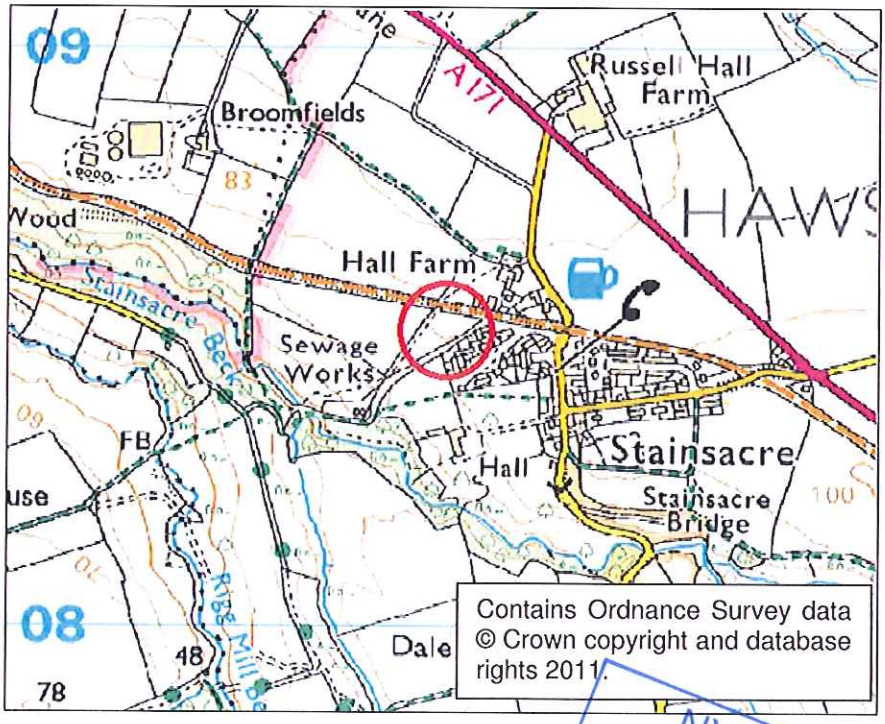


Figure 1.1 Site Location

2.0 Desk Study

Information relating to the location of statutory nature conservation sites within 2 km of the site was obtained from the North and East Yorkshire Ecological Data Centre (NEYEDC).

The site lies within the North York Moors National Park and the following sites shown in Table 2.1 were within 2km of the development site.

Table 2.1 Designated sites for Nature Conservation within 2km

Designated Site	Grid reference
River Esk	NZ899 098
Cock Mill and Larpool Wood- Stainsacre Beck	NZ902 088
Spital Vale Whitby	NZ904 103
Larpool and Whitehall woods- Esk valley	NZ890 099

The following protected species are confirmed as being present within 2km of the proposed development site:

otter (*lutra lutra*); water vole (*avicola amphibious*); slow worm (*anguis fragilis*); and red squirrel (*sciurus vulgaris*).

Additionally, Ordnance Survey mapping was consulted to identify waterbodies or watercourses within 500m of the site. This search reflects the potential for great crested newt to utilise terrestrial habitat up to 500m from their breeding ponds (Froglife, 2001) and also helps determine the potential for other riparian or semi-aquatic species to be present (eg otter *Lutra lutra*). The results identified that:

- No ponds were located within 500m of the development site; and
- The Stainsacre Burn is located ~140m to the south west of the site.

3.0 Survey Methodology

3.1 Extended Phase 1 Habitat Survey

The site was surveyed by Catherine Taylor on the 22nd August 2011. Catherine is an associate member of the Institute of Ecology and Environmental Management (AIEEM) with previous experience undertaking phase 1 habitat surveys and protected species surveys.

The weather during the survey was warm at 20°C, bright and dry. The methodology follows that set out in the Handbook for Phase 1 Habitat Survey (Joint Nature Conservation Committee, 2007). The survey was extended so that evidence of protected or notable species was searched for. Plant species were identified in accordance with Rose (2006) and Stace (1997).

The search for protected species considered the following species groups in accordance with the location and surroundings of the site:

- Breeding birds;
- Bats; and
- Badger.

No ponds were identified within 500m of the site and therefore it is considered unlikely that great crested newts would utilise the site. Similarly, the site is over 100m away from the nearest watercourse capable of supporting otter or water vole and therefore no specific survey for these species was conducted.

The specific methodologies used to establish the presence, or potential presence, of each species is set out in Appendix A (along with a brief summary of relevant species legislation).

3.2 Survey Constraints

The survey was undertaken later in the survey season and therefore some earlier plant species may not have been flowering, making it possible to overlook such species. However, given that the survey was undertaken within an appropriate season, and given the nature of the on-site habitats this was not thought to represent a significant constraint.

There were several mature trees present outside the development site but within the field boundary, these were surveyed for their potential to support roosting bats; however several of the trees were covered by ivy which makes surveying difficult and therefore a full tree inspection from the ground was not possible; however no cracks or fissures were visible and the trees appeared to be in good condition where visible which reduces the likelihood that bats will use them for roosting.

4.0 Survey Results

4.1 Habitat Descriptions

The Phase 1 habitat survey identified three main habitat types on the site and these are described in the following sub-sections. All habitats are shown on Figure 4.1 with target notes in Appendix B.

4.1.1 Improved grassland

The site was comprised almost entirely of an improved grassland sward dominated by perennial rye grass *Lolium perenne* and white clover *Trifolium repens.* Other species included cocks-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, meadow grass *Poa sp*; tufted hair grass *Deschampsia cespitosa*, creeping buttercup *Ranunculus repens*, colts foot *Tussilago farfara* and common mouse ear *Cerastium holosteoides.* The land was used for grazing livestock though there were no stock in the field at the time of the survey.

4.1.2 Site boundaries

The site is bordered to the north east by a disused railway line much used by walkers and joggers, and beyond this are improved agricultural fields. The railway embankment is covered by tall ruderal vegetation with species including brambles *Rubus fruticosus* and creeping thistle *Cirsium arvense* and mature hawthorn trees *Crataegus monogyna*. The hedgerow here is absent and replaced by a wooden fence.

To the south east and west the hedgerow is intact and dominated by hawthorn *Crataegus monogyna* with holly *Ilex aquifolium* and ivy *Hedra helix* in places; tall ruderal vegetation with brambles, cow parsley *Anthriscus sylvestris* and common nettle *Urtica dioica* was recorded at the base of the hedgerow, especially in the east with shade tolerant species such as herb robert *Geranium robertianum*.

The site is open to the south with the same field unit continuing beyond the development boundary. The hedgerow at the southern corner of the field is more gappy with mature sycamore trees *Acer pseudoplatanus*, oak *Quercus sp.* and hazel *Corylus avenella* and a post and rail fence.

4.1.3 Trees

Within the line of the hedgerow to the east of the site are several mature trees including a large oak, hazel and mature sycamores. No significant cracks, rot holes or fissures were identified however, dense ivy cover made made a full inspection difficult.

4.2 Fauna

4.2.1 Breeding Birds

The site is comprised of improved grassland. This habitat type in locations such as this on the fringe of important areas for breeding waders (North York Moors SPA) has the potential to support breeding wader species such as lapwing *Vanellus vanellus* and curlew *Numenius arquata.* However, the small amount of the habitat available is relatively enclosed to most directions which is likely to deter any breeding efforts from such species on the site as upland breeding waders tend to select open areas for breeding as part of predator avoidance strategy.

It is possible that a range of garden/ hedgerow birds may utilise the adjoining hedgerows for breeding.

4.2.2 Bats

Some potential for bat roosting was noted in mature sycamore and oak trees present within the hedgerow to the west of the site (Target note 2 Appendix B). No opportunities for roosting bats were considered present on site. A small brick built tunnel (Target note 5 Appendix B) running beneath the railway line was inspected for potential to support roosting bats, however there were no gaps or holes between the brickwork large enough to provide shelter for roosting bats, and many were covered by cobwebs. No signs of roosting bats such as grease marks or droppings were observed.

The combination of hedgerows, mature trees and grassland often occupied by livestock in a rural location makes it likely that the site will be used by foraging and or commuting bats to some degree.

4.2.3 Badger

No evidence was found of badgers using the site at the time of survey (such as snuffle holes, setts, tracks, latrines or runs).

4.2.5 Other fauna

The potential for reptiles to utilise the site is extremely limited with the grass sward too short to provide optimal reptile habitat.

There are no watercourses within 100m of the site which could support aquatic dependant species such as otter or water vole.

5.0 Site Evaluation

The site comprises of widespread and common habitats which do not in their own right represent important features for biodiversity conservation. A number of opportunities have however been identified where certain species may use the site for breeding and foraging or may use features immediately adjacent to the site for roosting.

Overall the site is assessed as being of low ecological value.

6.0 Conclusions and Recommendations

The proposed development site at Scraper Lane is considered to be of low ecological value due to the grazed and improved nature of the grassland comprising the vast majority of the site and no evidence of protected or notable species present.

However, the hedgerow and associated trees bordering the site to the south east and west are of some ecological value and should be considered as the most important ecological features within the broader site.

Whilst no significant effects on wildlife are predicted it is recommended that the only features of any ecological value of note, the surrounding hedgerows and mature trees, are retained within the development, with a stand-off distance of at least 3m provided between the hedgerows (offsite) and all construction works.

The following recommendations are provided to enhance the site for wildlife.

i) Given the rural location of the site and the suitability of the surrounding landscape to support bats 5x Schwegler 2F bat boxes should be erected. Where possible the mature sycamore and oak trees adjacent to the site should be used for this purpose.

ii) A series of Schwegler 1N deep bird boxes, suitable for hedgerow dwelling species, should be installed along the line of the boundary hedgerow in suitable locations. Such boxes provide protection from predators such as domestic cats.

iii) Nest boxes suitable for house sparrow *Passer domesticus* and/or house martin *Delichon urbicum* should be included on suitable areas of the proposed new buildings. Schwegler 9B bird boxes would be suitable for house martins.

iv) For all planting and landscaping peat free compost and locally sustainably sourced timber should be used.

v) Where opportunities are available a suitable species rich wildflower mix should be used to seed any amenity areas within the proposed development.

vi) Where possible planting of native hedgerow species should be undertaken to improve the condition of hedgerows in the area surrounding the development site.

7.0 References

Bat Conservation Trust (2007). *Bat surveys – Good Practice Guidelines. Bat Conservation Trust, London.* ISBN 978-1-87245-99-2.

Froglife. (2001). *Great Crested Newt Conservation Handbook.* Froglife, Suffolk.

JNCC (2007). *Handbook for Phase 1 Habitat Survey A technique for environmental audit.* JNCC. Peterborough.

Rose, F. as revised and updated by O'Reilly, C (2006). *The Wild Flower Key - New Revised Expanded Edition.* Penguin Books Ltd.

Stace, C. (1997). *New Flora of the British Isles.* Second Edition. Cambridge.

Appendix A – Species Specific Legislation and Survey Methodologies

• Badger (*Meles meles*)

Protective Legislation

The main legislation protecting badgers is the Protection of Badgers Act (1992). This Act consolidates previous legislation by providing comprehensive protection for badgers (it is illegal to, or to attempt to, willfully kill, injure, take, possess or cruelly ill-treat any badger) and their setts (it is an offence to intentionally damage or destroy a badger sett). Set interference includes damaging or destroying a sett, obstructing access to a sett, or disturbing a badger when it is occupying a sett.

What constitutes a sett is important and the Act defines this as, "*any structure or place which displays signs indicating current use by a badger*". Further guidance is available from Natural England[1] on what constitutes a sett and what is meant by "current use". A precautionary approach is advocated. In Scotland current use is defined as, "*any sett within an occupied badger territory regardless of when it was last used.*"

Fines of up to £5,000 plus up to six months imprisonment, for each illegal sett interference, badger death or injury can pertain. The legislation does, however, recognise the need for a range of legitimate activities to be carried out and authorised sett disturbance or destruction can be carried out under licence for the purposes of development (amongst others) if certain conditions are met.

Survey Methodology

Suitable habitats were searched for evidence of badgers including setts, snuffle holes, runs and presence of hair on push-throughs under fences. Where access permits, searches were extended to look for evidence of badger setts within 50m of the site.

• Birds

Protective Legislation

All wild birds, their occupied nests and eggs are protected by the Wildlife & Countryside Act 1981 (as amended).

'Schedule 1' birds are species which are afforded special protection within the Wildlife & Countryside Act (as amended). It is illegal to intentionally or recklessly disturb any Schedule 1 species while it is nest building or is at (or near) a nest with eggs or young; or disturb the dependent young of such a bird.

Survey Methodology

The survey was undertaken outside of the breeding season so only habitats suitable to support breeding birds were identified.

• Bats

Protective Legislation

All bats and their roosts are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are also included in The Conservation of Habitats and Species Regulations 2010 and are therefore considered to be a European Protected Species (EPS). Further enforcement has been provided by The Countryside and Rights of Way Act 2000. This means that it is illegal to:

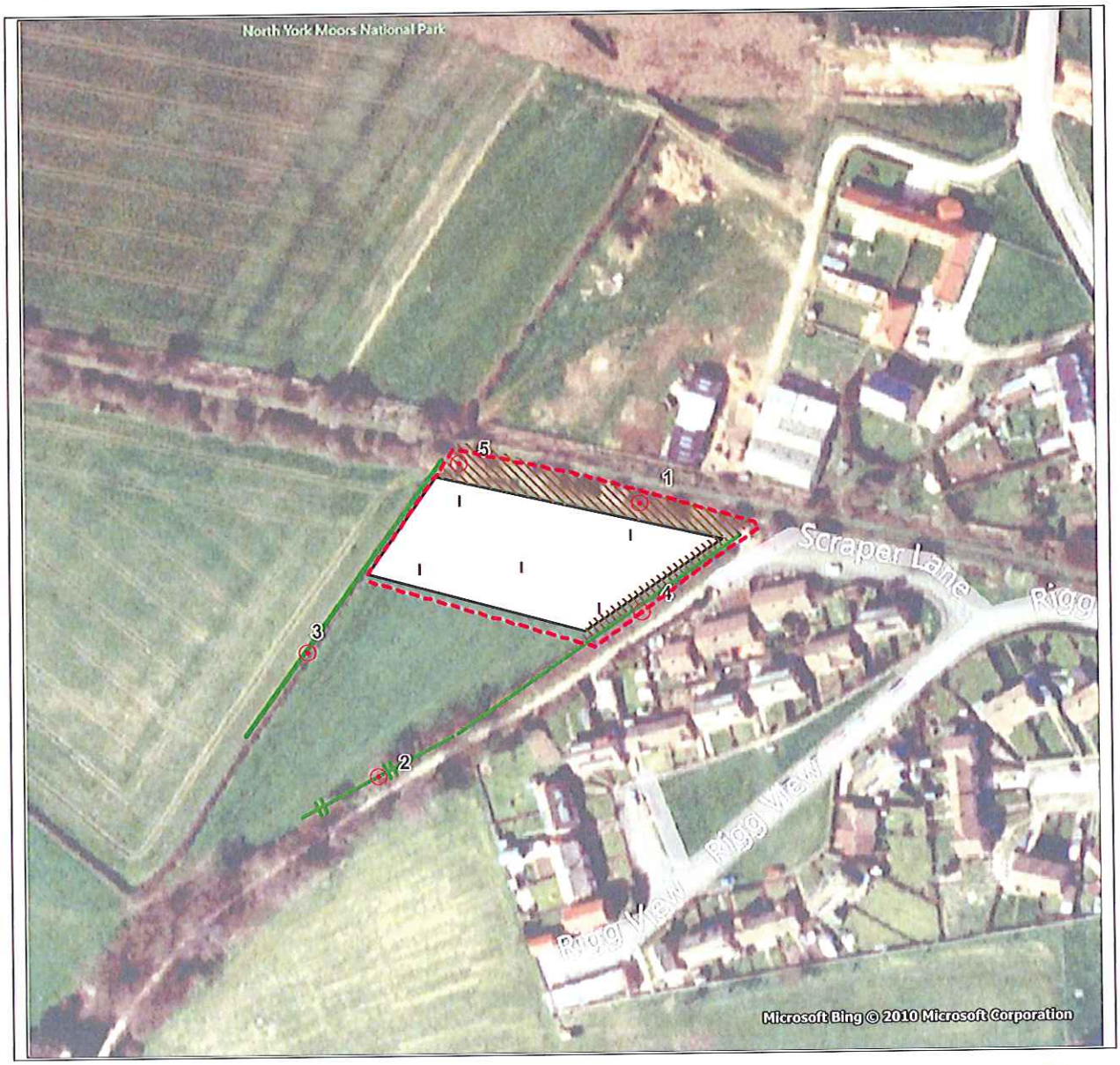
[1] http://www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

- intentionally or deliberately kill, injure or capture (take) bats;
- deliberately disturb bats (whether in a roost or not);
- damage, destroy or obstruct access to bat roosts;
- possess or transport a bat or any part of a bat, unless acquired legally; and
- sell, barter or exchange bats, or parts of bats.

Survey Methodology

A small brick built tunnel is present on-site and several trees are present near the development site. A ground based visual assessment to identify the potential for roosts to be present in such trees was undertaken looking for features such as cracks, splits, loose bark, rot holes, woodpecker holes and the presence of ivy. Trees were surveyed according to the standard tree assessment guidelines (BCT, 2007)

Appendix B – Phase 1 Survey Map and Target Notes



Development boundary

Tall ruderal

Species poor intact hedgerow

Species poor gappy hedgerow with trees

Improved grassland

Number	Note
1	Tall ruderal vegetation on railway embankment with relic hawthorn hedgerow indicated by line of mature hawthorn trees
2	Gappy area of hedge with mature trees, medium to low (roost potential category 2b) potential for roosting bats (BCT,2007).
3	Intact species poor hedgerow dominated by hawthorn.
4	Intact species poor hedgerow with tall ruderal vegetation beneath.
5	Small brick built tunnel under railway line.

Note; Phase 1 habitats are mapped within the development site boundary. Habitats outside the development site are not mapped; but the area covered by the extended phase 1 survey (for protected species signs) is shown by red dashed line.