

Barnsley Schools

Extended Phase 1 Report

(*DEARNE HIGH SCHOOL*)
EXTRACT.

This Report has been prepared
under the Framework of BS EN
ISO 9001:2000

Approved for issue:

Date: _____

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1.1 Introduction

RPS was commissioned by Barnsley District Council to undertake an initial ecological assessment for ten schools in the Barnsley region. At all schools the application sites comprised a series of buildings and their associated grounds and playing fields. The buildings date from between the late 1850's to the modern day. Field surveys in the form of extended Phase 1 habitat surveys were undertaken during July and August 2006. An updated survey of Dearne High School was carried out in October 2007 due to the addition of an adjoining piece of land to the development footprint.

Most of the schools are located within predominantly urban areas, with woodland or farmland associated with some of the sites. Trees, scrub or patches of woodland are found within or bordering the grounds and playing fields of all of the sites. The ten schools surveyed were as follows:

- **St.Michaels School;**
- **Edward Sheerien School;**
- **Kingstone School;**
- **Holgate School;**
- **Penistone Grammar School;**
- **Darton High School;**
- **Greenacre Special School;**
- **Dearne High School;**
- **The Springwell Centre, and;**
- **Kirk Balk School.**

1.2 Assessment Methodology

Extended Phase 1 Survey

The survey followed Phase 1 habitat survey methodology (JNCC, 1993) and was extended to assess faunal potential. This involves walking the whole site, mapping and describing different habitats (for example: woodland, grassland, scrub); evidence of fauna and faunal habitat is also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the *Guidelines for Baseline Ecological Assessment* (IEA, 1995).

1.3 Baseline Conditions

Desk Study

The desk study exercise was undertaken during July and August 2006. The consultees and their responses are shown below in **Tables 1 & 2**. The desk study, using a 2km area of search around each site, involved contact with a number of key data holders including:

English Nature

Sheffield Wildlife Trust

The Environment Agency

Barnsley Metropolitan Borough Council

Sheffield Biological Records Centre

Rotherham Biological Records Centre

Local Bat Recorder (Eric Bennett)

Local Bird Recorder (John Wint)

Barnsley Bird Study Group (Christine McKee)

South Yorkshire Badger Group

An updated desk study took place during October 2007 to include a 2km radius of the additional land at Dearne High School.

Table 1 Summary of consultation

Consultee	Responded	Issues Highlighted
English Nature & MAGIC Website	11/08/06	No Special Areas of Conservation (SAC) or Special Protection Areas (SPA) with 5km of any of the application sites. No Sites of Special Scientific Interest (SSSI) within 2km of any of the application sites. 1 LNR located within 2km of Kingstone, Holgate and the Springwell Centre.
Environment Agency	07/09/06	Multiple records of otter, water vole and white-clawed crayfish within search area of several schools.
Sheffield Wildlife Trust	09/08/06	Do not hold any records for this area. Suggested that Barnsley Council be contacted.
Barnsley Metropolitan District Council	03/08/06	Multiple records of locally designated sites within search area of several schools.
Sheffield Biological Record Centre	02/08/06	Do not hold any records for the Barnsley area.
Rotherham Biological Record Centre	09/08/06	Do not hold any records for the Barnsley area.
South Yorkshire Badger Group	30/08/06	Records of badger activity from within 1km of three schools (Penistone Grammar School, Darton School and Greenacre Special School).
Local Bat Recorder	10/08/06	Multiple records of bats within search area of several schools.
Local Bird Recorder	02/08/06	Does not hold data for the search areas. Suggested that Barnsley Bird Study Group be contacted.
Barnsley Bird Study Group	N/A	Did not respond.

NBN Gateway	N/A	Historical record of grass snake from within 1km of Dearne site (1975). SE 4504.
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Table 2 Summary of responses

Statutory Wildlife Sites	
There are no Statutory Wildlife Sites within the search areas	
Non-statutory Wildlife Sites	
LNR - Worsborough Park	SE 347 032 (<2km from The Springwell Centre)
LNR – Dearne Valley Park	SE 356 072 (2km from St. Michaels and Edward Sheerien)
Locally Designated Sites	
Old Mill Lane Culvert Bat Roost	SE 351072 (2km from St. Michaels and Edward Sheerien)
Royd Moor Reservoir	SE 222 048 (<2km from Penistone)
Scout Dyke Reservoir	SE 233 048 (<2km from Penistone)
Faithwaite and Lowe Wood	SE 315 035 (<2km from Kingstone and Holgate)
Wombwell Wood	SE 378 025 (<2km from Kirk Balk)
Short Wood and Hay Green	SE 353017 (1.5km from Kirk Balk)
Elsacar Reservoir	SK 382 994 (2km from Kirk Balk)
Protected Species	
WCA Schedule 5 animals	
Bats	
Pipistrelle bat (<i>Pipistrellus pipistrellus</i>)	Multiple bat records at: Greenacre/Holgate/Kingstone SE 318 048 (1.5km from the site) SE 349 047 (1.5km from the site) SE 340 068 (1.5km from the site)

	Penistone SE 233 034 (1km from the site) SE 248 038 (<1km from the site) SE 249 039 (<1km from the site) SE 247 036 (<1km from the site) SE 248 036 (1km from the site) Darton SE 300 105 (1km from the site) Dearne SE 457 051 (1.5km from the site) SE 465 040 (500m from the site) Kirk Balk SE 345 011 (2km from the site) St Michaels/Edward Sheerien/The Springwell Centre SE 358 072 (2km from the site) SE 367 100 (1km from the site) SE 379 082 (2km from the site)
Brown Long-eared bat (<i>Plecotus auritus</i>)	Records for: Greenacre/Holgate/Kingstone SE 321 062 (1.5km from the site) Penistone SE 248 059 (1.5km from the site) Darton SE 299 105 (<1km from the site)
Leisler's bat (<i>Nyctalus leisleri</i>)	Records for: Greenacre/Holgate/Kingstone SE 325 073 (1.5km from the site)

	SE 339 073 (1.5km from the site) SE 336 074 (1.5km from the site)
Myotis bat (<i>Myotis sp.</i>)	Records for: Penistone SE 234 050 (1.5km from the site) Darton SE 295 089 (<1km from the site)
Brandts bat (<i>Myotis brandtii</i>)	Records for: Penistone SE 247 036 (<1.5km from the site)
Whiskered bat (<i>Myotis mystacinus</i>)	Records for: Penistone SE 247 036 (<1.5km from the site)
Noctule bat (<i>Nyctalus noctula</i>)	Records for: Kirk Balk SK 3899 (1.5km from the site)
Daubenton's bat (<i>Myotis daubentonii</i>)	Records for: Kirk Balk SE 351 072 (1km from the site) SE 378 063 (2km from the site) St Michaels/Edward Sheerien/The Springwell Centre SE 351 072 (2km from the site)
Natterer's bat (<i>Myotis nattereri</i>)	Records for: Kirk Balk SE 378 063 (1km from the site) Darton SE 303 080 (<1km from the site)

Badgers	Badger activity from within 1km of Penistone Grammar School, Darton School and Greenacre Special School. No grid references. Badger activity not noted from within school grounds.
Otters	Otters on Lower River Dearne and River Dearne, Worsborough Reservoir and River Don and Scout Dike Reservoir and Dike. No grid references.
Water voles	Water voles on River Dearne, Dodworth Dyke, House Carr Dyke, West Moor Dyke and Hound Hill Dyke. No grid references.
White-clawed crayfish	White-clawed crayfish on Cawthorne Dyke, River Dearne. Small populations on River Don and Scout Dike Reservoir and Dike. No grid references.

English Nature Natural Area

English Nature's Natural Areas are sub-divisions of England, each with a characteristic association of wildlife and natural features. Each Natural Area has a unique identity resulting from the interaction of wildlife, landforms, geology, land use and human impact.

Each Natural Area includes specific habitats highlighted as being of national and local significance.

The study area is located within the Coal Measures Natural Area.

Coal Measures

This Natural Area has the following habitat of national significance:

Earth heritage.

The Natural Area also has the following habitats of local significance:

Acid grassland;

Fen, marsh and swamp;

Lowland heathland;

Neutral grassland;

Rivers and streams;

Standing open water and canals, and;

Wet woodland.

This Natural Area is characterised by dense populations centred on a number of towns and cities that developed largely as a result of the underlying coalfields. These are deposits of shales and sandstones of late Carboniferous age (c. 320-295 million years old), which were deposited in equatorial swamps. Peat accumulated in these swamps and has subsequently been converted to coal.

The topography of the Natural Area is gently undulating and the network of towns and cities is characterised by a matrix of acidic ancient and secondary woodlands, valley wetlands, neutral and acid grasslands, and mixed agriculture. Canals, mill-ponds and natural rivers are also important features.

Local Biodiversity Action Plan (LBAP)

The Barnsley Biodiversity Action Plan (BAP), produced by the Barnsley Biodiversity Trust, provides a practical plan for the conservation and enhancement of wildlife and habitats in the Borough including the study area. The BAP identifies priorities for nature conservation in Barnsley, comprising action plans for 19 species and 18 habitats.

Species Action Plans include:

Bluebell, Otter, Pipistrelle Bat, Brown Hare, Water Vole, Great Crested Newt, White-Clawed Crayfish, Glow Worm, Barn Owl, Bittern, Corn Bunting, Grey Partridge, Lapwing, Linnet, Little Ringed Plover, Skylark, Song Thrush, Tree Sparrow and Twite.

Habitat Action Plans include:

Upland Oak Woodland, Upland Mixed Ash Woodland, Wet Woodland, Parkland, Ancient & Species-Rich Hedgerows, Cereal Field Margins, Floodplain Grazing Marsh, Lowland Meadows, Lowland Dry Acidic Grassland, Lowland Heathland, Upland Heathland, Rush Pasture, Reedbeds, Ponds & Canals, Running Water, Standing Water, Urban Built-Up Areas and Post-Industrial Derelict Degraded Land.

Results from Desk Study

Habitats

There are no European Designated Sites (SAC/SPA) from within 5km of any of the school sites. There are no Statutory Designated Sites (SSSI) from within 2km of any of the school sites.

Worsborough Park LNR (2km south of Kingstone, Holgate and Greenacre Schools) and Dearne Valley Park (2km south west of St. Michaels and Edward Sheerien) are within 2km of some of the school sites. Other locally designated sites within 2km of the school sites include Old Mill Lane Culvert Bat Roost (2km from St. Michaels and Edward Sheerien), Royd Moor Reservoir (<2km from Penistone), Scout Dyke Reservoir (<2km from Penistone), Faithwaite and Lowe Wood (<2km from Penistone), Wombwell Wood (<2km from Kirk Balk), Short Wood and Hay Green (1.5km from Kirk Balk), Skiers Spring Wood (1km from Kirk Balk) and Elsecar Reservoir (2km from Kirk Balk).

None of the school habitats have national or local significance according to English Natures Natural Area profile for Coal Measures. Of the habitats listed within the Barnsley Biodiversity Action Plan (BAP), only small stretches of species-rich hedgerows were encountered, at Holgate School, and one within the grounds of Kirk-Balk School.

Protected Species

The following species, identified from the desk study, are listed within the Barnsley Biodiversity Action Plan (BAP) and have associated Species Action Plans: otters, water voles, white-clawed crayfish and pipistrelle bats.

Bats

Records exist for bat roosts from within 2km of all the schools. Three species were recorded from within 2km of Darton (natterers, brown long-eared, pipistrelle), and Greenacre, Holgate and Kingstone Schools (pipistrelle, leislars, brown long-eared). Two/three species were recorded from within 1.5km of Penistone (pipistrelle, brandts/whiskered). Two species were recorded from within 1.5km of Kirk Balk Schools (noctule, pipistrelle). One species was noted from within 2km of St. Michael, Edward Sheerien and the Springwell Centre (pipistrelle), and one species from within 0.5km of Dearne School (pipistrelle).

Badgers

The South Yorkshire Badger Group noted badger activity from within 1km of Penistone Grammar School, Darton School and Greenacre Special School. Badger activity was not noted from within the grounds of any of these schools.

Otters

Otters were noted by the Environment Agency to be on the Lower River Dearne and River Dearne, Worsborough Reservoir and River Don and Scout Dike Reservoir and Dike. No specific grid references were given. These records are only relevant to Penistone Grammar School, as it is the only school with grounds adjacent to a significant water course (Scout Dike Reservoir and Dike).

Water voles

Water voles were noted by the Environment Agency to be on the River Dearne, Dodworth Dyke, House Carr Dyke, West Moor Dyke and Hound Hill Dyke. No grid references were given. These records are only relevant to Penistone Grammar School and Dearne High School, as they are the only schools with grounds adjacent to a water course (Scout Dike Reservoir and Dike and Far Moor Dike respectively).

White-clawed crayfish

White-clawed crayfish were noted by the Environment Agency to be on Cawthorne Dyke and the River Dearne. Small populations were also on the River Don, and Scout Dike Reservoir and Dike. No grid references were given. These records are only relevant to Penistone Grammar School.

Birds

Despite approaching the Local Bird Recorder and Barnsley Bird Study Group, no desk study records were obtained for birds for the search areas. However, the majority of schools are within urban settings, and none were found to contain any rare or unusual habitats during the Phase 1 habitat survey. As a result it is considered very unlikely that they would contain breeding Schedule 1 species of birds, or significant assemblages of nationally or locally important species.

2007 update

No additional biological records were supplied following the updated desk study in 2007.

Extended Phase 1 Habitat Survey

Habitat descriptions

This section has been divided into two main sections, those from the field survey of the school grounds and those from the buildings.

Field survey - general

Figures 1-9 in Appendix 1 are Phase 1 habitat plans for the study sites. All the sites comprise school buildings, hardstanding, playing fields and, in some cases, areas of boundary tree planting, scrub and woodland patches. Mature trees can also be found within the hardstanding or between buildings on some of the sites.

Summary description for school sites

Hardstanding:

All the schools have considerable areas of hardstanding, for use by the children during breaks, or for sporting activities. None of these areas were considered to have any ecological interest.

Playing fields:

All the playing fields have vegetative compositions typical of amenity grasslands. They are all sown and species poor. Perennial rye-grass (*Lolium perenne*) dominates with annual meadow-grass (*Poa annua*) in abundance. A few associated but less common species include daisy (*Bellis perennis*), dandelion (*Taraxacum* sp.), white clover (*Trifolium repens*) and creeping buttercup (*Ranunculus repens*).

Trees:

Most of the schools have mature and semi-mature native or amenity trees on-site. In some cases these trees are clearly planted and are scattered between the buildings. There are mature trees at some sites including specimens with dense growths of ivy, cracks, die back and rot around limb breaks. It is possible that some trees are used as occasional summer roosts for bats, and therefore all appropriate trees were assessed for their potential value as bat roosts. Many of the trees are also of considerable benefit to nesting birds.

Scrub and tall ruderals:

Patches of amenity or native scrub and tall ruderals were located on the fringes of amenity grasslands in most of the schools surveyed.

Woodland:

Woodland habitats can be found within the grounds of three schools:

Penistone Grammar School;

Darton School, and;

Greenacre School.

Hedgerows:

Species-rich or species-poor native hedges can be found lining the grounds of:

Kingston School;

Holgate School;

Dearne School;

Penistone Grammar School;

Darton School, and;

Kirk Balk School.

Ponds & wetlands:

School ponds were noted within the grounds of the following schools:

Penistone Grammar School;

Kingston School, and;

Darton School.

Greenacre Special School (Phase 1 Habitat Base Map No.6)

Greenacre School is located within an industrial/urban setting, very close to Kingstone & Holgate Schools. Local industry can be found to the north, and housing is to the south and west. Playing fields border the southern and eastern margins of this school.

In general, this school does not have any unusual habitats or species. However, scrub woodland can be found to the west of the site, which may be of value to badgers (TN 1). Whilst no evidence of badgers was seen during the initial Phase 1 survey, the presence of badgers cannot be ruled out without a full survey. This woodland is surrounded by large stands of tall ruderal vegetation, with little ecological value.

Elsewhere across the grounds, a variety of broadleaved trees and shrubs can be found lining the northern and eastern borders of the amenity football pitch (TN 2). Whilst there are no mature trees of note within these borders, there are a wide variety of native species including willow, hawthorn, elder, English oak, birch, rowan, aspen, field maple, guelder rose, elm and cherry. These offer considerable bird-nesting potential, and should be retained if possible within the landscape design plans.

Dearne High School (Phase 1 Habitat Base Map No.7)

Dearne School is within the town of Goldthorpe, located 11 miles to the east of Barnsley. It is in a predominantly urban setting, with housing to the north and west. Open fields can be found to the east, and two fishing reservoirs are in close proximity to the southern border of this school.

This school does not contain any rare or unusual habitats. Amenity grasslands, with tall ruderal herbs and occasional scrub fringing the edges, dominate the majority of the grounds. A wet ditch/stream was found to the far southwest (TN 02), but this was outside the application site. Beyond this were two large reservoirs, which may warrant further study for great crested newt potential.

Hedgerows line many of the nearby fields, but none were within the boundaries of the school. A single hedgerow was found within the site, adjacent to the caretakers house (TN 01). This gappy hedgerow, whilst containing a variety of native and introduced species, was not considered to have particular ecological value.

2007 Update

In October 2007 the site boundary of the Dearne High School development was extended and an additional piece of land, to the south east of the original site boundary was surveyed. Phase 1 Habitat Base Map No.7 has been amended to show the updated site boundary and the habitats present within it.

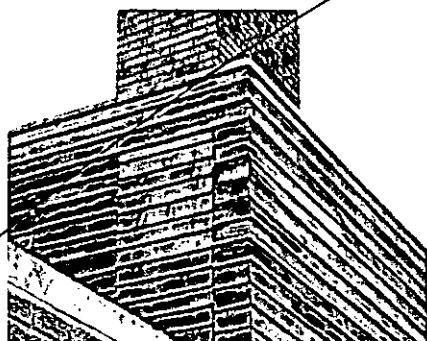
The additional land is a disused tip approximately 2 ha in size. The surrounding land is predominantly arable with Far Moor Dike forming the southern boundary of the site. The dike contained little water at the time of survey and was heavily littered. It is considered an unsuitable habitat for protected riparian species such as water voles and otters and no evidence of these species was seen during the survey.

Habitats present within the site include semi-improved neutral grassland, dense scrub, tall ruderal herbs, scattered trees and ephemeral vegetation. Some stands of Japanese Knotweed (*Fallopia japonica*) were noted towards the south east corner of site and just beyond the site boundary (TN03). Japanese knotweed is listed in Schedule 9 of the Wildlife and Countryside Act (1981), as amended, as a controlled weed. This makes it an offence to cause knotweed to grow elsewhere by incorrect handling and removal. A management strategy will be required for appropriate removal methods from the site.

There are a number of semi-mature trees concentrated around the edges of the site. There are a variety of native species including hawthorn, elder, field maple, cherry, wild plum, domestic apple and sycamore. The trees were inspected for evidence of roosting bats. Whilst no evidence of bats was noted, they did offer considerable bird-nesting potential, and should be retained if possible within the landscape design plans.

Springwell Centre

A small school, dating from the 1960's. One potential bat roost was identified in the boiler room, where bat access is possible via loose barge boards. An internal inspection for evidence of bats is recommended for this building.



Dearne High School

The main building dates from the 1930's (Figure 1). There is one long two-storey building to the front of the school, joined to a parallel single-storey building of similar age at the rear, by several connecting corridors. These form three quads in between the parallel buildings.

The buildings are all redbrick, with sloping tiled roofs, and have wooden soffits. The frontage has one hole to the right of the main entrance, and some loose soffits (Figure 2). Running parallel and behind the single storey building is a modern structure of similar style, with a pitched roof of concrete tiles. All of these tiles are intact.

Figure 1: main building frontage



Figure 2: gaps in soffits



Within this building are three quads. The quad to the east has some bat potential, as roof tiles are missing, and gaps exist in soffits (Figure 3).

Figure 3: missing roof tiles in quad



The rear of the old building (facing the new block) has one area of loose soffits (Figure 4).

Figure 4: loose soffits at rear of main building



Facing the rear of the old building is a modern extension with evidence of perch roosting by an owl/raptor (droppings and pellets).

The caretakers house, a redbrick two-storey house with a pitched sloping roof has some bat potential, as there is loose brickwork in one corner (Figure 5). As a result, an internal inspection of this building, and of the other buildings with bat potential at this school, are recommended.

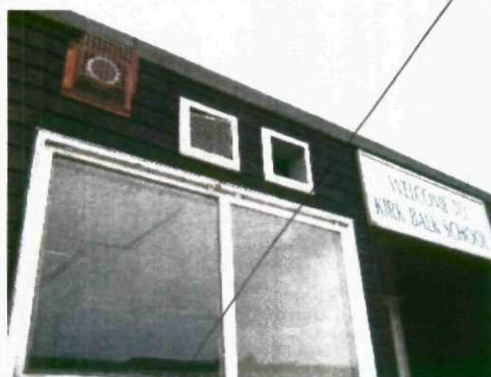
Figure 5: caretakers house



Figure 5: hole in fascia boards of main hall, eastern face



Figure 6: missing grills on vents, giving access to roof space in science block



It is recommended that internal inspections be carried out on all roof voids within the older buildings to the east, in order to look for evidence of bats.

1.4 Evaluation & Recommendations

All of the habitats found within the grounds of the ten schools were considered to be common and widespread. None of the sites contained any rare or unusual species, and none had habitats of high botanical interest. The features considered to have the highest wildlife value were the buildings (for bats), woodland (for badgers), hedgerows (for nesting birds) and mature trees (for nesting birds and possibly bats).

Bats

Some of the school buildings were considered to have good potential roosting opportunities for bats. If these buildings are included within development plans then a detailed bat survey including internal inspection of roof spaces, and emergence surveys should be undertaken.

Bats have been known to inhabit school buildings similar to those within this survey. In particular, the two pipistrelle species (*Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*) are often associated with modern post 1960's buildings. These crevice-dwelling bats do not need roof voids in order to roost, and can be found under loose barge boards, fascia boards and roof tiles in the summer months. The older buildings, with roof voids, may harbour the above bats, in addition to open-roosting species such as brown long-eared bats (*Plecotus auritus*).

The school buildings were surveyed for their potential to support roosting bats. This entailed searching for potential access points into crevices and roof voids. All these holes were scrutinised for evidence of use by bats, such as staining around holes, feeding remains, droppings and an absence of cobwebs.

Whilst no direct evidence of bats was seen during the initial surveys, they cannot be ruled out without undertaking internal inspections and emergence surveys. There were numerous potential holes identified that could have been in use by bats. Potential roosting sites have therefore been identified in the baseline survey, and these should form the basis of any additional further work. This additional work should therefore include internal inspections and any recommended emergence surveys.

Bat surveys

As a result of the findings of this report, bat surveys are recommended for most of the schools: Internal inspections should be carried out for all the accessible roof voids. These, in conjunction with more detailed external bat assessment of the suitable buildings, will determine the number of emergence surveys to be undertaken. Where no roof voids are present, emergence surveys alone are recommended.

Recommended internal inspections of roof voids

Holgate School (A-block, B-block, C-block & caretakers house);

Springwell Centre (boiler room);

Dearne School (main building, new building, caretakers house);

Penistone Grammar School (all sixth form buildings, Wierfield, C-Block, Fulford);

Darton School (poplar tree; endoscope inspection);

Kirk Balk School (English/Special Needs and Maths/Geography).

Recommended emergence surveys

Edward Sheerien School

Caretakers house (opposite boiler room);

Boiler room (opposite Caretakers house);

Technology (loose barge-boards).

Kingstone School

Caretakers house (hole in wall);

Water tower (hole in wall).

Springwell Centre

Boiler room fascia boards (but internal inspection may rule this out).

Penistone Grammar School

All sixth form buildings, Wierfield, C-Block, Fulford, as dictated by internal inspection.

Darton School

Dining room, south west and south east corner.

Kirk Balk School

English/Special Needs and Maths/Geography, as dictated by internal inspection;

Science block: missing grill.

If these surveys do reveal the presence of roosting bats then a suitable licence will need to be sought from DEFRA. The implications of the above with relation to the proposals are that where it is necessary during the construction to remove trees, buildings or structures in which bats roost, it must first be determined that this work is necessary and permissible, and if so that any necessary licenses are subsequently obtained from DEFRA. Licenses will only normally be issued in such cases if English Nature is satisfied that the works are permissible and that appropriate measures are being put into place to mitigate adverse effects.

In the event that bats were to be found within the buildings or any trees other than those mentioned above during demolition or felling, all work must stop immediately and advice must be sought from a qualified ecologist and English Nature. Emergency mitigation measures to rescue and provide alternative roosting for the bats found would need to be undertaken, which would require a licence from DEFRA.

Badgers

Badgers and their habitats are protected under the Protection of Badger Act (1992). Three schools (Darton, Penistone, and Greenacre) contained woodland within their grounds that were considered suitable badger habitat. Whilst no badger setts were found during the Phase 1 surveys, it was not possible to conduct a thorough search. Potential foraging badger activity was noted within the grounds of Darton School. More detailed badger surveys are therefore recommended for:

Darton School;

Penistone Grammar School, and;

Greenacre School.

Great crested newts (GCN)

GCN are protected under Schedule 5 of the Wildlife & Countryside Act, 1981 (as amended). They are also included in Schedule 2 of the Conservation (Natural Habitats) Regulations 1994.

Three schools contained ponds within their grounds (Penistone, Kingstone and, Darton). None of these ponds were considered particularly suitable for GCN. The pond at Darton is well established but contains stickleback fish (the two species do not tend to co-exist). The ponds at Penistone and Kingstone are small and unsuitable at present, as they are newly established. However, if development does not take place within the next two years these water bodies may need to be re-assessed. However, unless GCN are present in the area (awaiting desk study results), it is considered very unlikely that these ponds would be considered suitable as GCN natal ponds.

As GCN are able to migrate up to 500m from their breeding ponds, all water bodies within this distance were identified from OS maps. Schools with water bodies within this distance include Penistone Grammar School and Dearne School. Whilst these water bodies are not considered suitable from initial observations (they are large and appear to be stocked with fish), GCN suitability surveys are recommended in order to rule out this possibility.

Hedgerows:

One species-rich hedge was noted forming the southern boundary of Holgate School, and one within the grounds of Kirk-Balk School. Species-poor native hedges can be found lining the grounds of:

Kingstone School;

Holgate School;

Dearne School;

Penistone Grammar School;

Darton School, and;

Kirk Balk School.

Few of these hedgerows are considered to have high ecological value, other than to nesting birds. Most hedgerows encountered were species-poor and dominated by hawthorn. The only species-rich hedgerows were at Holgate and Kirk Balk schools. The Kirk Balk hedgerow was adjacent to a private dwelling and appeared to have been planted. The Holgate hedgerow was more natural, containing seven woody species. As it lines the southern border of a playing field, it is assumed that this hedge would not be affected by the development proposals.

All hedgerows are important to nesting birds. In addition, they form valuable wildlife corridors to species such as bats, which often use them as flight-lines. As a result, efforts should be made to retain all these native hedgerows within the landscape designs for the new schools.

Trees

The majority of trees identified during the Phase 1 survey were not considered to have high ecological value, other than to nesting birds. There were a few specimen trees that were considered to potential value to bats, in particular at Darton School (poplar), Kingstone School (oak, sycamore) and Penistone School (a number of mature trees). All these trees should be retained within the proposed landscape designs if possible. If not, they should be assessed for their potential to harbour bat roosts, prior to felling.

Vegetation clearance with regard to nesting birds

All birds, their nests and young are protected against death, injury or destruction by the Wildlife and Countryside Act 1981 (as amended). Nesting birds will occur within woodland, scrub and hedgerows. In order to avoid conflict with nesting birds it is recommended that all vegetation clearance, and building demolition take place outside of the bird-nesting season, which generally runs from March to August inclusive.

Invasive Plants

Japanese knotweed was found close to the boundary of the Holgate School grounds. Should it spread into the grounds by the time of development, it will require a management strategy.

Further stands of this species were recorded within the site boundary at Dearne High School. The legislation governing the control of Japanese Knotweed is particularly onerous. Under Schedule 9, Part II of the Wildlife and Countryside Act 1981 (as amended), it is an offence to "plant or otherwise cause to grow in the wild any plant which is included in Part II of Schedule 9". Additionally, the Environment Protection Act (EPA) 1990, & Duty of Care Regulations 1991, state that cut knotweed material and soil containing rhizomes must be disposed of as a controlled waste if it is to be removed from the site of origin. Soil containing rhizomes or roots is regarded as contaminated and, if taken off site, must be disposed of at a suitably licensed landfill site and buried to a depth of at least 5m.

An Invasive Plants Management Plan (IPMP) is required following the format recommended by the Environment Agency. It is normally necessary to discuss and agree treatment proposals with the Environment Agency.

1.5 Conclusions

Bats have been identified as the main ecological constraints to the proposed development of the ten schools. As a result, internal and emergence bat surveys have been recommended for the majority of the schools surveyed. In addition, badger surveys have been recommended for three schools, and great crested newt suitability surveys on land surrounding two of the schools. An Invasive Plant Management Plan is required for the handling and removal of Japanese knotweed at Dearne High School.

References

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Appendix 1

Figures 1-9 Phase 1 Habitat Plans for Barnsley Schools



- KEY**
- Buildings
 - Hard Standing
 - A Amenity Grassland
 - SI Neutral Grassland Semi Improved
 - SI Semi Improved Grassland
 - Scattered Trees
 - Scattered Scrub
 - Dense Scrub
 - Tall Ruderal
 - Introduced Scrub
 - Standing Water
 - Running Water
 - Wall
 - Ephemeral Vegetation
 - Bare Ground
 - Additional Survey Area

Dominant Species

Agrostis capillaris
Festuca ovina
Trifolium repens
Plantago lanceolata
Stellaria media



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TITLE

Phase 1 Habitat Survey

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M. Matthew

DATE

November 07

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