

**RPS**

**St Michael's, Barnsley**

Updated Extended Phase I Habitat Survey

For

**Barnsley Metropolitan Borough Council.**

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Project Ref: DLE1940  
Date: September 2009

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# CONTENTS

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|                                             |           |
|---------------------------------------------|-----------|
| <b>1. INTRODUCTION</b>                      | <b>1</b>  |
| 1.1 Background                              | 1         |
| 1.2 Scope                                   | 1         |
| <b>2. METHODOLOGY</b>                       | <b>2</b>  |
| 2.1 Desk study                              | 2         |
| 2.2 Field survey                            | 3         |
| <b>3. RESULTS</b>                           | <b>4</b>  |
| 3.1 Desk study                              | 4         |
| 3.2 Field survey                            | 7         |
| 3.3 Protected/notable species               | 9         |
| <b>4. EVALUATION</b>                        | <b>12</b> |
| <b>5. RECOMMENDATIONS &amp; CONCLUSIONS</b> | <b>13</b> |
| <b>6. REFERENCES &amp; BIBLIOGRAPHY</b>     | <b>14</b> |

## APPENDICES

Figure 1 – 2009 Updated Phase I Habitat Map.

Figure 2 – Original 2007 Phase I Habitat Map (for reference).

# 1. Introduction

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## 1.1 Background

- 1.1.1 **Barnsley Metropolitan Borough Council (MBC) commissioned RPS Planning and Development Limited to undertake an extended Phase I habitat survey of school buildings and associated grounds at the St Dominic's school site in Barnsley. This survey and report forms part of an overall update of an original Phase I survey that was undertaken by RPS in 2007 at the St Michael's site (of which, St Dominic's is a part of).**
- 1.1.2 **The site is centred on OS Grid Reference: SE 359 091 and is part of a larger complex that has St Michael's School to the west/ south west and Edward Sheerien's School to the north east. The original Phase I survey that was undertaken by RPS in 2007 evaluated St Michael's and Edward Sheerien's but the site proposals and therefore the evaluation did not include the St Dominic's school and grounds at that time. This 2009 Phase I survey evaluates the St Dominic's site in detail.**
- 1.1.3 **The current development proposals involve the demolition of all three sets of school buildings and the construction of a new school within the same footprint.**
- 1.1.4 **No changes are considered to have occurred at St Michael's or Edward Sheerien's since the 2007 report. Conclusions and recommendations for those areas remain unchanged.**

## 1.2 Scope

- 1.2.1 The ecological appraisal comprises three sections, which collectively form an ecological profile of the site:
1. an evaluation of conservation status based on a desktop review that summarises information collated on protected species records and nature conservation designations in the area;
  2. **an appraisal of the site's habitat composition and floristic abundance, which is derived from a walkover survey; and,**
  3. a protected species audit that evaluates the likelihood of protected, or otherwise notable species, occurring on the site.

## 2. Methodology

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The extended Phase I habitat survey was undertaken with reference to the Institute of Environmental Assessment's 'Guidelines for Baseline Ecological Assessment' (IEMA, 1997) and the **Joint Nature Conservation Committee's Handbook for Phase I Habitat Survey** (JNCC, 1997). In accordance with these guidelines the survey comprises a desk study and field study, as described below.

### 2.1 Desk Study

- 2.1.1 The desk study component comprises consultation with statutory and non-statutory nature conservation organisations. The aim of this exercise is to supplement the field survey results by collating and reviewing ecological information relevant to the site and the local area. Records of protected species and sites of importance for nature conservation, e.g. Sites of Special Scientific Interest (SSSI) are obtained, where available, in order that any potential impact from the development proposals on protected species and designated sites can be assessed.
- 2.1.2 Information was requested for the site itself and for a 2 km radius around the site in line with standard guidelines (IEMA, 1997). Based on the location and nature of the site, information was requested from the following organisations:
- Barnsley MBC (record centre);
  - Rotherham Biological Record Centre;
  - Eric Bennet - Local Bat Recorder;
  - John Wint, South Yorkshire Bird Group; and
  - Monica Ward, South Yorkshire Badger Group.
- 2.1.3 The Biodiversity Action Plan (BAP) for Barnsley was also reviewed in order to assess which species and habitats have been highlighted as requiring positive conservation action to maintain and enhance their ecological value and integrity within the regional boundary. The potential impact on any of these species or habitats by the development proposals is assessed in order to assist with achieving the action plan targets for their protection.

## 2.2 Field Survey

- 2.2.1 A field survey of the site was undertaken on the 18<sup>th</sup> August 2009 by Helen Lloyd AIEEM, an experienced ecologist. The aim of such field surveys is to establish the ecological value of the site and to evaluate the potential impact of any future development proposals on the nature conservation features of this site.
- 2.2.2 An extended Phase I habitat survey was undertaken for the whole site, following the guidelines recommended by the Joint Nature Conservation Committee (JNCC) and the Institute of Environmental Assessment (IEMA). The Phase I survey aims to identify habitat types and species present at the time of survey, and also assesses the potential of the habitats and features present to support other protected or notable species.
- 2.2.3 According to IEMA 1997, Phase I surveys can be undertaken all year round to support and verify the findings of the desk study. Although certain protected species surveys need to be undertaken during particular seasons, it is possible through a Phase I habitat survey to identify any potential habitats on site where protected species may be present. In the event that suitable habitats are identified, it will be necessary to undertake further seasonal surveys to investigate the potential for protected species fully. However, in the event that no suitable habitats for protected species are identified on site, a Phase I habitat survey is sufficient to determine the potential impacts associated with a proposed development.
- 2.2.4 The dominant plant species are recorded and habitats classified according to their vegetation types. These are presented in the standard Phase I habitat survey format with habitat descriptions and habitat maps (see Figure 1). Due to the low diversity of habitats on site, descriptions are included within the main text. The presence (if any) of noxious and invasive species such as Japanese knotweed (*Fallopia japonica*) and giant hogweed (*Heracleum mantegazzianum*) were also investigated during the field survey.

### Limitations to Survey

- 2.2.5 The survey was undertaken during optimal conditions. No limitations to the survey were identified.

### 3. Results

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#### 3.1 Desk Study

- 3.1.1 Statutory and non-statutory consultees, as listed below, were contacted for relevant biological records for the site itself and within a 2 km radius from the centre of the site. Table 1 summarises the responses received. Where responses are yet to be received, these will be passed on to the client when obtained, together with any comments on their relevance to the assessment of the site.

**Table 1: Summary of Consultations**

| Consultee                          | Response Date       | Comments                                                                                                           |
|------------------------------------|---------------------|--------------------------------------------------------------------------------------------------------------------|
| Barnsley MBC (record centre)       | 02.09.09            | Citations and boundary maps for 3 Natural Heritage Sites and 1 candidate NHS site within the search area supplied. |
| Rotherham biological record centre | 03.09.09            | Only deals with Rotherham area. Directed towards Barnsley Biodiversity Trust as possible supplier of records.      |
| Local Bat recorder                 | 07.09.09            | Thirteen bat records supplied.                                                                                     |
| South Yorkshire bird group         | 03.09.09            | Request letter passed on to relevant person.                                                                       |
| South Yorkshire badger group       | No response to date |                                                                                                                    |

Table 2: Designated Sites and Protected Species Records

| European Designated Sites                                          |              |                    |                                                                                                                           |                       |                  |
|--------------------------------------------------------------------|--------------|--------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|
| There are no European designated sites within 10 km of the site.   |              |                    |                                                                                                                           |                       |                  |
| Nationally Designated Sites                                        |              |                    |                                                                                                                           |                       |                  |
| There are no nationally designated sites within 10 km of the site. |              |                    |                                                                                                                           |                       |                  |
| Locally Designated Sites                                           |              |                    |                                                                                                                           |                       |                  |
| There are five locally designated sites within 2 km of the site.   |              |                    |                                                                                                                           |                       |                  |
| Dearne Valley Park - Local Nature Reserve (LNR)                    |              |                    | Approx 2 km south of the site.                                                                                            |                       |                  |
| Carlton Marsh – LNR and NHS                                        |              |                    | Approx 2 km east of the site.                                                                                             |                       |                  |
| Barnsley Canal – Natural Heritage Site (NHS)                       |              |                    | SE 370 125. Important for standing water and swamp habitat and <i>Myriophyllum verticillatum</i> (nationally rare plant). |                       |                  |
| Old Mill Lane Culvert - NHS                                        |              |                    | SE 351 072. Important roost site for <b>Daubenton's bats</b> .                                                            |                       |                  |
| Barnsley Canal at Wilthorpe - NHS                                  |              |                    | SE 336 084. Mosaic of habitats, rich in entomology.                                                                       |                       |                  |
| Protected Species                                                  |              |                    |                                                                                                                           |                       |                  |
| Wildlife & Countryside Act (WCA) Schedule 5 animals                |              |                    |                                                                                                                           |                       |                  |
| Bats                                                               |              |                    |                                                                                                                           |                       |                  |
| 6 records less than 10 years old:                                  |              |                    |                                                                                                                           |                       |                  |
| SE 358 072                                                         | Indet        | Pipistrelle        | 20+                                                                                                                       | House, Monk Bretton   | 12.07.02.        |
| SE 352 085                                                         | Indet        |                    | Dr                                                                                                                        | House, Smithies       | 12.06.04.        |
| <b>SE 357 118</b>                                                  | <b>Indet</b> | <b>Pipistrelle</b> | <b>1 – 2</b>                                                                                                              | <b>House, Royston</b> | <b>16.06.05.</b> |
| SE 354 118                                                         | Indet        |                    | +Dr                                                                                                                       | House, Royston        | 02.08.00.        |
| SE 360 070                                                         | Indet        | Pipistrelle        | Dr                                                                                                                        | House, Monk Bretton   | 01.07.09.        |
| SE 367 100                                                         | Indet        |                    | Present                                                                                                                   | Tunnel,railway        | 2004.            |
| WCA Schedule 1 birds                                               |              |                    |                                                                                                                           |                       |                  |
| No records supplied to date                                        |              |                    |                                                                                                                           |                       |                  |
| Other Notable species e.g. Red list or BAP priority species        |              |                    |                                                                                                                           |                       |                  |
| No records supplied to date                                        |              |                    |                                                                                                                           |                       |                  |

**NB – All distances are approximate****Biodiversity Action Plan for Barnsley**

- 3.1.2 The application site lies within the area covered by the Biodiversity Action Plan (BAP) for Barnsley. This plan aims to highlight those habitats and species within the Barnsley area that require positive conservation action in order to maintain and enhance their ecological value and integrity. There are no habitats included within the plans that have been produced as part of the Barnsley BAP that may be relevant to the site. However there are two species with biodiversity action plans which may be relevant to the site, these are:

- ☐ song thrush (*Turdus philomelos*); and,
- ☐ tree sparrow (*Passer montanus*).

**Desk Study Summary**

- 3.1.3 The desk study revealed that there are no internationally or nationally designated sites within 10 km of the application site.
- 3.1.4 There are five locally designated sites within 2 km of the site.
- 3.1.5 Where desk study responses have not yet been received, they will be forwarded on to Barnsley MBC along with comments on their implications, where necessary. However, any additional outstanding data is unlikely to affect the conclusions of this report.

**3.2 Field Survey**

- 3.2.1 A Phase I habitat survey was undertaken in order to identify the habitat types present within the proposed development site and any habitats or features of ecological importance, which may be directly or indirectly affected by the proposals. A Phase I habitat map can be found in Figure 1.

**Site Context**

- 3.2.2 The area surveyed is situated towards the back of the schools complex (furthest away from Carlton Road). It comprises two main buildings with a smaller one acting as a nursery. Hard-standing and amenity grass typical of school grounds are also present. Carlton Road with residential housing lies south west to north west beyond the other schools. Industrial buildings lie to the north east/ south east beyond amenity grassland fields.

**Habitat Descriptions**

3.2.3 The Phase I survey identified the following habitats (listed in descending order of dominance) within the development site:

- ☐ buildings and hard standing;
- ☐ amenity grassland;
- ☐ scattered trees/ scrub; and
- ☐ introduced shrub.

#### ***Buildings and Hard Standing***

3.2.4 The entrance onto the site is located to the north, with tarmac hard standing leading down to the reception entrance on the west side of the main building. This building is of brick construction with many large plate glass windows. There are two east to west orientated sections to the building with flat roofing at either end, and north to south pitched roofing in the central section. The top edges of the buildings have barge boards along them with roofing felt then hung over from the roof edge and attached along the boards. All of the barge boards are in good repair, apart from the south facing section where rot and splitting has begun to set in.



**Photograph A – Flat roof section**

(looking south west).



**Photograph B – Pitched and flat sections**

(looking north west).

3.2.5 To the southwest of the reception building is the second school building. This is orientated east to west and also has flat roofing with barge boards and overhanging roofing felt. This is all in good repair.

3.2.6 The smaller nursery building is located to the north west of the second school building. This appears to be a more recent addition to the site, consisting of yellow brick rather than red, and appears to be more recently constructed. It has a pitched roof of ridged tiles.

3.2.7 A rectangular grey tarmac playground area with crayon sculptures is located to the south of the buildings.

#### ***Amenity grassland***

- 3.2.8 There is a large amenity grassland area to the south of the buildings and playground, with an **embankment on the west leading up onto the amenity grass pitch of St Michael's school**. Sward height is short with typical grassland species of perennial rye grass (*Lolium perenne*) dominating. Creeping buttercup (*Ranunculus repens*), common daisy (*Bellis perennis*) and dandelion (*Taraxacum officinale*) are also present.
- 3.2.9 Seven smaller areas of amenity grassland surround the north, east and west sides of the buildings. These are short to medium sward, with low diversity, especially towards the front of the reception and nursery buildings.
- 3.2.10 To the east of the main building, a small area of amenity grass has been fenced off in the past and allowed to grow rank. Within this area, and for 1 -2 m south east of it, species diversity is much higher. Species include coltsfoot (*Tussilago farfara*), common ragwort (*Senecio jacobaea*), broadleaf dock (*Rumex obtusifolius*), creeping bent (*Agrostis stolonifera*), creeping buttercup, false oat grass (*Arrhenatherum elatius*), ribwort plantain (*Plantago lanceolata*), mugwort (*Artemisia vulgaris*) and stinging nettle (*Urtica dioica*). This area also includes a small, man made pond. It has been neglected and the water level is low, although a couple of aquatic plant species are present.



**Photograph C** – rank grassland with small pond.

#### **Scattered Trees / Scrub**

- 3.2.11 cattered mature cherry (*Prunus* sp.), sycamore (*Acer pseudoplatanus*), silver birch (*Betula pendula*) and whitebeam (*Sorbus aria*) are present across the site. A line of six semi-mature trees run along the top of the amenity grass embankment. Species present here include apple (*Malus* sp.), field maple (*Acer campestre*), cherry, rowan (*Sorbus acuparia*) and silver birch.
- 3.2.12 Diverse dense scrub species intermingled with scattered trees occur behind the east boundary fenceline. Species include hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), oak (*Quercus* sp.), dogwood (*Cornus sanguinea*), dogrose (*Rosa canina*), beech (*Fagus sylvatica*), sycamore, alder (*Alnus glutinosa*) and rowan.



Photograph D – Scattered trees in-front of fence line with scrub behind.

#### ***Introduced Shrub***

- 3.2.13 There are two noticeable walled areas of native and non-native introduced shrub on site, in-between the south side of the main building and the playground.

#### ***Invasive Species***

- 3.2.14 No invasive plant species e.g. Japanese knotweed (*Fallopia japonica*) were found on site.

### **3.3 Protected / Notable Species**

- 3.3.1 Protected species are those with statutory protection measures, either as:

- ☐ listed on Schedules of the Wildlife and Countryside Act 1981 (as amended);
- ☐ covered under the Protection of Badgers Act 1992; or
- ☐ listed on Annexes of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (implemented by the Conservation Regulations 1994 (as amended)).

- 3.3.2 Notable species are those that are not specifically protected by the statutes mentioned above, but are nevertheless important in a national, regional or local context. This includes species within BAPs and those that are regionally or locally scarce/ rare.

#### **Records of protected species**

- 3.3.3 No records of protected species on site, or within 2 km of the site, have been supplied to date.

### Potential for protected Species

- 3.3.4 The field survey identified potential presence and/ or suitable habitat for one protected species. All species are discussed below:

#### Great Crested Newt (GCN) (*Triturus cristatus*)

- 3.3.5 There is one small man made pond on site. It is approximately 4 m x 2 m with a low level of water and very limited aquatic vegetation. There are no other water bodies within 500 m of the site (500 m is the accepted distance that GCN are considered to travel to reach a breeding pond). The pond is considered unsuitable and isolated for GCN, therefore GCN are not considered to be present on site.

#### Bats

- 3.3.6 The majority of buildings on site have flat roofs with no roof void, which bats prefer to utilise. The roofing felt along all edges of the buildings appears in good repair and intact, offering no gaps/ crevices for bats to enter the buildings. One section of barge boarding on the south side of the main building is rotten and splitting in one area, but it does not lead into a roof space. It is considered to have negligible potential to support roosting bats. The nursery building does not have cracks/ crevices for bats to utilise. Overall bat roost potential for the buildings is considered to be negligible.
- 3.3.7 None of the mature trees on site have features such as cracks or loose bark that would have potential to support roosting bats. The scrub line along the eastern boundary may provide limited foraging potential for bats, but the expanse of open amenity grassland surrounding it is not desirable to bats and therefore potential is considered to be negligible.
- 3.3.8 No further surveys will be necessary.

#### Reptiles

- 3.3.9 There is a lack of suitable basking and foraging habitat on site and a lack of connectivity with other suitable areas. Due to this and the urban nature of the surrounding area, reptiles are unlikely to be on site. No further surveys are considered necessary.

#### Water Vole (*Arvicola terrestris*)

- 3.3.10 The pond on site is unsuitable and there are no other water bodies, therefore water vole are not considered to be an issue on the site.

Badger (*Meles meles*)

- 3.3.11 No habitat suitable to house a sett is present on site. No evidence of foraging was seen during the walkover of the site. No further badger survey work is considered necessary.

Nesting Birds

- 3.3.12 The grassland on site is too short to be suitable for ground nesting birds. However, the scattered trees and line of dense scrub along the eastern fence line have the potential to provide nesting opportunities for urban birds species including tree sparrow and song thrush listed in the Barnsley BAP.

## 4. Evaluation

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- 4.1 All of the habitats on the St Dominic's grounds are found to be common and are of low ecological value.
- 4.2 The walkover appraisal identified low potential for nesting urban birds and possible foraging bats on site, with the scrub along the eastern fenceline providing the most potential to support these species.
- 4.3 No other notable or protected habitats or species were observed during the survey. Consequently, the site is considered to be of very low ecological value.

## 5. Recommendations and Conclusions

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5.1.1 The potential species constraints to the development are listed below:

### **Nesting birds**

5.1.2 Common urban nesting birds have potential to be on site during the breeding season (March to September). To avoid any issues and mitigation requirements, it is recommended that vegetation clearance (including removal of grassland, scrub and trees) should take place outside of the bird-breeding season (i.e. works should take place between October and February inclusively).

### **Potential for enhancement**

5.1.3 The potential for enhancement exists in the detailed design of the proposed building and surrounding landscaping. Where possible, the retention of trees, scrub and areas of tall grassland should be considered in order to help minimise the impact of the proposed development. If the removal of the eastern fence line scrub is unavoidable, it is recommended that a similar species mix is replanted elsewhere within the new design if feasible.

5.1.4 Any planting scheme should consider the use of an appropriate native species mix to enhance the habitat for wildlife. RPS can provide advice on appropriate species mixes, sourcing of seed or plants, seasons for planting and management.

## 6. References and Bibliography

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## Figure 1

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### 2009 Updated Phase I Habitat Survey Map

## Figure 2

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**Original 2007 Phase I Habitat Survey Map**