

SECTION 1 - INTRODUCTION

1.0 INTRODUCTION

1.1 BACKGROUND

The Landscape Agency was commissioned in October 2006 to prepare a Conservation Management Plan (CMP) for Pittville Park in Cheltenham (See fig 1.3). This document has been written to satisfy the terms required to secure grant aid via the Heritage Lottery Fund to part-fund the conservation, repair, restoration and enhancement of the historic park at Pittville. The plan also sets out proposals to enhance the ecology of the site and enable greater interpretation of the site for park visitors.

This conservation management plan aims to:

- assess the historic, wildlife and landscape elements of the park at Pittville;
- set out a programme of work (detailed up to RIBA Stage C) required to achieve the restoration and enhancement objectives, which can be used in an application for funding via the Heritage Lottery Fund (or equivalent).

The document aims to be an informative and user-friendly plan setting out the historical, landscape and ecological aspects of the park. It analyses and priorities features for restoration, sets out opportunities for enhancement and also forms a reference source to help planning and management decisions for the future.

This CMP makes up part of a wider submission to the Heritage Lottery Fund; This CMP should be read in conjunction with the following documents:

Pittville Park Training Plan, Access Plan and Audience Development Plan

Pittville Park Business Plan

Pittville Park 10 year Management and Maintenance Plan

1.2 LANDSCAPE BRIEF

The objective of this report is to provide a Conservation Management Plan (CMP) that will set out a framework for the historic restoration and development of the park at Pittville. The plan assesses the archival development of the site, its current condition in terms of vegetation and trees, hydrology, ecology, as well as access, views and ongoing management and maintenance.

The plan also proposes new intervention based on proposals worked up by The Landscape Agency as a result of an assessment of current issues within the park.

The vision for the park at Pittville is to restore and repair the significant historic structure of the site alongside a programme of renewal and enhancement of the landscape features and to provide a parkland setting accessible for all.

1.3 LOCATION

Pittville Park lies approximately 1.22 miles (1.96km) to the north of the central area of the spa town of Cheltenham, in the county of Gloucestershire. Gloucester lies 10 miles (15km) to the

south west, Tewkesbury, 10 miles (15km) to the north and Stroud, 21 miles (35 km) to the south west. The M5 motorway runs directly to the west. There is a small river, the Chelt, which runs through Cheltenham and the River Severn runs to the west of the town. (See Fig 1.1 and 1.2)

Pittville was founded by Joseph Pitt in the early nineteenth century and has some of the best examples of Regency and Victorian housing in the town.

Cheltenham is located on the fringe of the Cotswolds with Cleeve Common to the north east and Leckhampton Hill to the south east forming part of the Cotswold escarpment. Views of this escarpment from Pittville Park contribute significantly to its character and setting.

The park at Pittville is divided by the A435 Evesham Road which runs north-south through the area. To the east of the road is the original Pittville Park while to the west the Marle Hill annex was incorporated into Pittville Park in 1892. Today the park extends to approximately 34 hectares and is made up of gently sloping parkland surrounding the two man made lakes which were established in the lowest part of the valley after the damming of Wymans Brook. (see section 2 Landscape History)

1.4 DESIGNATIONS

Pittville Park is registered as Grade II on the National register of Parks and Gardens of Special Historic Interest in England and is located within the Cheltenham central conservation area, designated in 1973 by Gloucester County Council. (See Fig 1.3)

Significant buildings surround the park to the east of the A435 Evesham Road, many of which are listed on the National Register of Listed Buildings. The Pump Room to the north east of the park is listed as Grade I on the National Register.

1.5 LANDSCAPE CHARACTER

The Countryside Agency (formally the Countryside Commission) with English Nature produced the Character of England map in 1996, combining English Nature's Natural Areas and the Countryside Agency's Character Areas into a map of 159 Joint Character Areas for England.

Cheltenham is located in the region classified in the 'Character of England map' as falling within character area 106 – Severn and Avon Vales.

The characteristics typical of this landscape type are:

- Diverse range of flat and gently undulating landscapes, united by broad river valley character;
- Riverside landscapes with little woodland, often very open;
- Variety of land uses from small pasture fields and commons in the west to intensive agriculture in the east;
- Distinct and contrasting vales: Evesham, Berkeley, Gloucester, Leadon and Avon;
- Many ancient market towns and large villages along the rivers;
- Nucleated villages with timber frame and brick buildings;

- Prominent views of hills – such as the Cotswolds, Bredon and the Malverns – at the edges of the character area.

Cheltenham Borough Council have made an assessment of the character of all the conservation areas within their district and Pittville Park is within the boundary of the Pittville Character Area.

The key characteristics of this area which relate to the landscape of Pittville Park are

- The extensive open green spaces and the well established tree-lined streets for the structure of Pittville's character and appearance and the setting of buildings;
- Pittville Park creates a parkland setting for the character area and takes up approximately 50% of the total space of the character area;
- The pattern and layout of streets, the spaces between the buildings and the mass and style of the buildings and use of quality building materials complement each other. They combine together to give elegance and spaciousness;
- The character area contains over 150 statutory listed buildings and some locally listed buildings and structures, allowing it to have a rich architectural and historic interest;
- Pittville character area contains the Grade 1 listed Pittville Pump Room which dates from 1825.

Taken from Cheltenham Borough Council Local Development Framework, Pittville Character Area appraisal and management plan draft document. March 2008.

1.6 SITE CONTEXT

Pittville Park, along with its associated squares and crescents is under the ownership and management of Cheltenham Borough Council and lies within the town's central conservation area, which was designated by Gloucester County Council in May 1973 and extended by Cheltenham Borough Council in August 1987. This conservation area is an area of special architectural or historic interest, with a character which is considered to be necessary to preserve. This conservation area is given protection under the Planning Act of 1990 (Listed Buildings and Conservation Areas) and Planning Policy Guidance 15 (PPG15) sets out national policy in relation to such areas and a framework for future planning guidance.

Cheltenham Borough Council have made an assessment of the character and appearance of all its conservation areas, with regards to PPG15 and have produced a Local Development Framework which includes character area appraisals and management plans to guide future development. These documents are still in draft form and are undergoing a period of public consultation before their adoption as a Supplementary Planning Document which will be used alongside the Local Plan when considering planning applications and future management of the area.

Specific areas within Cheltenham are undergoing regeneration within the town's Civic Pride Project, which aims to improve areas of public realm within the town. The boundary area for this project falls within a limited area of the Pittville Character Area.

The Pittville Character Area is based upon the boundaries of Joseph Pitt's planned estate, along with open green space to the west which forms the Approach Golf Course and Pittville

Park. Surrounding residential areas which have special characteristics are also included into this area.

1.7 METHODOLOGY

- 1.7.1 The study was carried out between October 2007 and April 2008.
- 1.7.2 The study area extends to 34 hectares. (See Fig 1.3)
- 1.7.3 The Conservation Management Plan has been prepared in line with the Heritage Lottery Fund's recommended guide set out in the *Conservation Plans for Historic Places, 1998*.
- 1.7.4 The first part of the study includes a general landscape survey identifying the type and condition of existing vegetation, built landscape features and views.
- 1.7.5 The detailed landscape history, written by Steven Blake, has been based on a detailed review and assessment of the Pittville Park archive kept in Cheltenham Record Office. Additional research was undertaken at the Public Record Office in Gloucester.
- 1.7.6 A detailed ecological overview was completed in March and April 2008 by The Environmental Research and Advisory Partnership (ERAP) and is included within this report and at Appendix 2.
- 1.7.7 A base plan for this project was provided by Cheltenham Borough Council.
- 1.7.8 An overview of the hydrology within the site was completed in April 2007 by Halcrow and is included at Appendix 4.
- 1.7.9 The report divides into six chapters and is accompanied by a corresponding volume of appendices. Section 2 describes the landscape history of the site, whilst section 3 describes the current condition of the site looking in detail at issues including the ecology and arboriculture on site. For ease of description and in order to make the plan more practical and easier to follow the site has been divided into character areas. Section 5 contains detailed descriptions of the vulnerability and issues of the park and Section 6 contains proposals area by area.
- 1.7.10 The nine character areas are as follows: (See Fig 1.3)
- Character Area 1: Pump Room Lawns
 - Character Area 2: Upper Lake
 - Character Area 3: Pittville Lawns
 - Character Area 4: Agg Gardner
 - Character Area 5: Lower Lake
 - Character Area 6: Marle Hill
 - Character Area 7: Agg Gardner West
 - Character Area 8: Squares and Crescents
 - Character Area 9: Pittville Gates

- 1.7.11 The site plan indicates the location of all the existing site features discussed in the report.
- 1.7.12 A masterplan and work schedule have been prepared in Section 6, setting out the proposed works to the site. The masterplan relates to historic landscape restoration works, as well as proposed new interventions worked up by The Landscape Agency after a process survey, analysis and in consultation with stakeholders.

1.8 INTRODUCTION TO THE ECOLOGICAL SURVEY

1.8.1 Summary

- 1.8.1.1 This Ecological Survey and Assessment report has been prepared to provide an appraisal of the existing and potential features of ecological interest at Pittville Park, Cheltenham.
- 1.8.1.2 The baseline ecological information has informed the preparation of suggestions for inclusion in the Conservation Management Plan for the improvement of the Park. The main objective of the proposals being the *conservation and enhancement of the biodiversity at the Park*.
- 1.8.1.3 The Study has involved the collation and review of existing ecological survey information and the completion of a survey of the flora and fauna at the site in March and May 2008.
- 1.8.1.4 The evaluation of the identified parkland habitats, flora and fauna has identified the following features of interest: -
- i. UK BAP habitats and Gloucestershire BAP Priority Habitats including Standing Open Waters and Wood-pasture, Parkland and Veteran Trees.
 - ii. Protected Species in the form of abundant Bat foraging activity and possible bat roosts
 - iii. Breeding UK BAP Priority Species of bird (6 species recorded, at least 3 confirmed breeding in the Park).
- 1.8.1.5 The surveys have demonstrated that the focus/concentration of wildlife and biodiversity in the Park is associated with the lakes. The lake habitats are a good source of biodiversity within the urban environment and create a wildlife corridor. Whilst the lakes and the surrounding habitats can be enhanced there are opportunities to improved the habitats in the wider parkland and create habitat connectivity to the more remote areas of the Park.
- 1.8.1.6 This informative and comprehensive report provides relevant information to contribute to a Conservation Management Plan specific to the biodiversity present and resources available at Pittville Park namely:-
- i. Guidance and advice on the relevant wildlife legislation and mandatory activities to be implemented/considered prior to any works.
 - ii. Practical and achievable suggestions and targets for the conservation and enhancement of biodiversity in each Character Area with reference to the UK and Gloucestershire Biodiversity Action Plans (BAP's).

- iii. The exploration of possible solutions to known issues at the Park which have had an adverse impact on the ecology (such as litter, vandalism and poor water quality).
- iv. Specific guidance with regard to the known features of ecological interest.
- v. The suggestion of future and long-term projects including schemes that could involve the local community.
- vi. All recommendations take into account the use of the site as open, public parkland.

1.8.2 Introduction and Background

Introduction and Objectives

1.8.2.1 The Environmental Research and Advisory Partnership (ERAP) was commissioned to carry out an ecological survey and assessment of the land at Pittville Park by The Landscape Agency on behalf of their client (Cheltenham Borough Council).

1.8.2.2 The site covers an area of approximately 34 hectares which is currently maintained by the Cheltenham Borough Council. The site comprises the following 10 character areas (See Fig 1.3): -

1. Pump Room Lawns
2. Upper Lake
3. Pittville Lawns north (3a), Pittville Lawns south (3b)
4. Agg Gardner
5. Lower Lake
6. Marle Hill West (6a), Marle Hill Centre (6b), Marle Hill East (6c).
7. Agg Gardner West
8. Squares and Crescents: Wellington Square (8a), Clarence Square (8b), Pittville Crescent North (8c), Pittville Crescent South (8d)
9. Pittville Gates

1.8.2.3 The objectives of the survey were as follows: -

- The completion of a data search for records of designated sites, protected species, habitats and other wildlife within the site and the wider area, up to a distance of 1 kilometre from the Application Site.
- The completion of a Phase 1 Habitat Survey (JNCC 1993) (See Fig 1.5) and inventory of the habitats within the park including the preparation of a detailed vegetation and habitat map of the entire site and the immediate surrounding area; the search for rare, locally distributed plants and invasive species and an estimate of the abundance and cover of individual species including the identification of constant plant species.
- An assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria (*A Nature Conservation Review 1977*).

- The search for and assessment of all habitats for statutorily protected species including Badger, bat species, Great Crested Newt and Water Vole.
- The survey and assessment of the habitats within the site for breeding and visiting bird species and invertebrates including butterflies.
- The use of the baseline information to suggest possible methods of improving and enhancing the nature conservation interests at the site, including the possibility of habitat creation.
- The suggestion of appropriate management practices to enhance the nature conservation interests at the site and ensure the conservation and future protection of all features of wildlife and ecological interest.
- The identification of any further surveys or precautionary surveys that may be required prior to the commencement of prescribed management activities.

Background: Review of previous biodiversity studies carried out at Pittville Park

Cheltenham Borough Council – Biodiversity Audit 2006

- 1.8.2.4 In October 2006 a Biodiversity Audit was commissioned by Cheltenham Borough Council. The audit covered the whole Cheltenham Borough. The main aim of the audit was to inform the Local Development Framework (LDF) and the council's Green Space strategy for the Borough. The audit involved a desk study, an Extended Phase 1 Habitat Survey and a review of the desk study and field surveys in relation to the UK and Gloucestershire BAPs.
- 1.8.2.5 The audit was generic as it covered 132 sites across the whole borough. The biodiversity value of all areas of open space within the Borough was determined in accord with the following methods: -
- 1.8.2.6 The biodiversity quality of each site is related to those criteria outlined in Table 1.2. This grading system is qualitative and is not representative of any nationally accepted regime, however, it has proved useful within similar projects to inform the allocation of resources for biodiversity enhancement for each site.

Biodiversity Quality	Description/Rationale
A	Large site with moderate/high existing biodiversity value OR small site with high existing biodiversity value
B+	Large site with low/moderate existing biodiversity value and with moderate/high potential biodiversity OR small site with moderate existing biodiversity value
B	Moderate site with low/moderate existing biodiversity value
C	Small site with low biodiversity value and minimal potential biodiversity

Table 1.2: Biodiversity Gradings for Open Space Sites within Cheltenham Borough (extracted from Biodiversity Audit, Cheltenham Borough Council (October 2006)).

1.8.2.7 The biodiversity value of a site has taken the following into consideration:

- Frequency of the habitat at Local and National level
- Spatial extent of the habitat at Local and National level
- Conservation designations of the habitats at Local and National level
- Species diversity within the site
- Presence of Local and National BAP species
- Presence of other notable species.

1.8.2.8 The following sites included in the biodiversity audit also fall within the Pittville Park site: -

Site	Reference number in biodiversity audit	CBC Open Space Category	Assessed biodiversity quality
Clarence Square	13	Parks and gardens	C (poor)
Pittville Crescent	41	Parks and gardens	C (poor)
Pittville Park	42	Parks and gardens	B+
Wellington Square	58	Parks and gardens	C (poor)

1.8.2.9 An extract from the Biodiversity Audit (October 2006) for each of the sites is presented in **Appendix 1**.

1.8.2.10 Following the audit a series of generic and broad management prescriptions were described for the habitats recorded across the sites assessed as part of the biodiversity audit. The prescriptions focused on the management for biodiversity and nature conservation and have been expanded in section 5.0 of this report to ensure the proposals are more specific to Pittville Park.

Pittville Lakes Restoration

1.2.8 Since winter 2003-04 a long-term restoration programme for Pittville Lakes has been implemented. This programme has involved: -

1. In 2002, baseline aquatic surveys of the aquatic invertebrates and the marginal macrophytes (plants) were undertaken by Aquascience. The surveys informed the following conclusion '*The aquatic invertebrate surveys and algal profiles from 2002 indicated that Pittville lower lake was a eutrophic standing water with a high degree of siltation and associated ecological issues at that time (Aquascience, 2002).*'
2. Over winter 2003-04 the Upper Lake and the residium were de-silted (Phase I).
3. A second survey of the invertebrates and macrophytes was undertaken in 2004. The survey concluded '*The 2004 environmental survey results indicated some*

signs of a return to the ecological status recorded by the Environment Agency in 1999 but they still highlighted a highly organically enriched environment (Aquascience, 2004).

4. In 2005 the Lower Lake was de-silted (Phase II).
5. In 2007, a post project appraisal of the condition of the lakes was undertaken by Aquascience. Six sample sites (sites A-F) were selected and the aquatic invertebrates and marginal macrophytes were sampled and recorded. The 2007 report makes the following statements: -

'The ecological data indicated an improvement in the biological water quality through the lakes between 2002 and 2007 as a result of the de-silting exercises.' (an increase in the actual mean BMWP¹ from 30 in 2002 to 47 in 2007).

'There were no marked differences in the marginal flora composition and distribution between the Aquascience 2002 and 2007 survey sites.'

'An improvement in the aquatic biodiversity could be expected 18 months to 2 years post-installation of floating bio-plateaus at Pittville lakes and it would be prudent to ensure that monitoring monies are made available for measuring the success of this final ecological restoration phase in August - September 2009.'

'It should also be noted that the majority of the waterfowl recorded in 2002 were still present during the 2007 ecological surveys.'

'Biological quality of the water had improved and there had been no blue-green algae blooms reported to date after the de-silting operations.'

6. In order to build on the success of the de-silting operations in improving the water quality of the lakes Cheltenham Borough Council has installed two floating plant islands into the feeder stream and lakes to slow down silt incursion and further enhance aquatic biodiversity.

¹ = BMWP = Biological Monitoring Working Party = is a procedure for measuring water quality using species of macro invertebrates as biological indicators.

1.8.3 Methodology

Research and Data Search

- 1.8.3.1 The following groups/organisations were contacted and a request was made for existing ecological information for the site: -

2. Magic (Multi-Agency Geographical Information System)
3. Gloucestershire Centre for Environmental Records
4. Gloucestershire Wildlife Trust
5. Gloucestershire Bat Group
6. County Bird Recorder for Gloucestershire

- 1.8.3.2 Relevant information obtained from the data search is integrated throughout this document.

- 1.8.3.3 Background information was also obtained from the 'Friends of Pittville Park' website (www.friendsofpittville.org). A tree report prepared by Cheltenham Borough Council (dated June 2007) was also consulted.

2008 Site Visit

- 1.8.3.4 Surveys of the Pittville Park area were carried out by experienced and qualified ecologists. All surveys were carried out in accord with recognised standard techniques (in accord with the Institute of Ecology and Environmental Management (IEEM) Survey Guidelines) and at suitable times of year.
- 1.8.3.5 Pittville Park and the local area were initially visited on the 4th March 2008 during dry and sunny weather conditions with a maximum daytime temperature of 4°C. A second visit was made on the 22nd May 2008 during dry but overcast conditions with a maximum daytime temperature of 21°C. All weather conditions were considered to be suitable for the scope of surveys conducted.
- 1.8.3.6 The survey was carried out by Miss Victoria Allen B.Sc. (Hons), M.Sc. MIEEM. Miss Allen was assisted by Mr Chris Swindells (an experienced ornithologist) on the 22nd May 2008.

Vegetation and Habitats

- 1.8.3.7 Vegetation and habitat maps of the site are presented in **Figs 1.4 and 1.5**. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC 1993) with minor adjustments to illustrate and examine the habitats with greater precision. Target notes have been added to the plan in **Fig 1.5** and **Table 1 Appendix 2**.
- 1.8.3.8 The principal and constant plant species of the habitats of interest at the site were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system where D = dominant, A = abundant, F = frequent, O = Occasional and R = rare, this being a widely used and accepted system employed by ecological surveyors.
- 1.8.3.9 All stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is widely used by Natural England and other wildlife organisations as well as ecological consultants to provide a scientific basis for the description and evaluation of habitats. The NVC provides a reliable framework for nature conservation and land-use planning.
- 1.8.3.10 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* and indicators of important and uncommon plant communities. All plant nomenclature follows Stace (1991).
- 1.8.3.11 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981*, namely Japanese Knotweed and Giant Hogweed.

Surveys for Protected Species and other Wildlife

1.8.3.12 All wildlife including mammals and birds observed during the survey was recorded. Searches were carried out for the presence and evidence of all protected species and all habitats were assessed for their potential to support protected species and other wildlife including UK BAP Priority Species.

Badger

1.8.3.13 A thorough Badger survey was conducted in accord with the methods described in the '*Species Conservation Handbook – Badgers*' published by English Nature (now Natural England). This included searching for signs of Badger throughout the whole of the site and the immediate surrounding land. Spring and early summer are within the recommended time period for the completion of a Badger survey.

1.8.3.14 The search included detailed examination of the site for the following signs of Badger activity: -

- 'D' shaped sett entrances at least 25 cms wide and wider than they are high with large spoil mounds
- Bedding at sett entrances (this includes grass and leaves)
- Scratching posts on shrubs and trees close to a sett entrance
- The presence of Badger hairs which are coarse, up to 100mm long with a long black section and a white tip
- Pit latrines and footprints
- Trampled pathways through vegetation and beneath fences.

Bat Species

1.8.3.15 All habitats were assessed for their potential to support roosting and foraging bats. This involved briefly searching for features including suitable cavities, crevices, droppings and staining on trees and buildings using binoculars.

1.8.3.16 On the evening of the 22nd May 2008 a nocturnal bat survey was carried out with the main objective of recording the extent of bat foraging and commuting activity present at the site at the time of year.

1.8.3.17 The survey involved two surveyors walking transects around the site from 20 minutes before sunset (survey started 2045 BST, sunset = 2105 BST) for a period of one and half hours. Heterodyne bat detectors (Batbox Duet) were used to determine the presence of bat activity. The bat detector was set at a frequency of 45 kHz but the frequency division feature on the Duet Bat detector was also used (with headphones) to ensure other bat species which echolocate at different frequencies (e.g. Noctule at 25 kHz) were detected.

1.8.3.18 Transects were walked through the whole site within the survey period. The surveyor paused for a periods of up to 5 minutes at features of interest which had been identified during the day light survey to be of potential value to either roosting or foraging bats.

Other Mammals

- 1.8.3.19 All evidence of the presence of other mammals including Fox, deer species and Grey Squirrel were recorded.

Bird Surveys

- 1.8.3.20 All birds noted/observed at the site in April and May 2008 were recorded with an estimate of their abundance (See **Table 2, Appendix 2**).
- 1.8.3.21 All habitats were assessed for their potential to support breeding, feeding and wintering birds.

Amphibians and Reptiles

- 1.8.3.22 All habitats within the site were assessed for their potential to support species of amphibian and reptile.
- 1.8.3.23 On the 22nd May 2008 a torchlight survey for amphibians was conducted at the Upper Lake and the Lower Lake. The torchlight survey was carried out by Miss Victoria Allen under survey licence number 20081217.
- 1.8.3.24 The survey involved walking around the margins of the lakes after dark and shining a torch into the water. All species of amphibians were recorded including sex and age, where possible.

Invertebrates

- 1.8.3.25 All habitats were assessed for their suitability to support species of invertebrate including butterflies, dragonflies and damselflies.

Survey limitations

- 1.8.3.26 The aim of the Phase 1 Habitat Survey is to identify any areas of ecological interest, to determine the areas of the site where conservation efforts should be concentrated and to determine whether there are any wildlife constraints on the completion of works. Whilst the Phase 1 Habitat Survey of Pittville Park carried out in March and May 2008 is comprehensive and has collated a vast amount of information it is important to recognise the limitations of a short survey with one year. All identified limitations are listed below.

Vegetation and habitats

- 1.8.3.27 Most flowering plants and grasses are evident at this time of year. Although most plants can be identified throughout the year, late summer flowering plants may possibly have been overlooked or their frequencies and abundance underestimated.
- 1.8.3.28 This is where the NVC is a very useful tool as provided the constant plant species are identified and the vegetation can be classed in accord with the NVC a prediction can be made with regard to the other plants species are expected to be present in other seasons.

1.8.3.29 Local areas of Pittville Park are planted with garden plant species and exotic varieties. Non-native plant species have not been identified.

Bat survey

1.8.3.30 The nocturnal bat survey provides a brief insight into the bat activity present at the site only. As bats typically move roosts throughout the active season the activity and species present at the site will vary between April and September (the main bat active season).

1.8.3.31 Brown Long-eared Bat echolocate very quietly and are not always audible on a bat detector, it is possible that during the brief survey, this species may have been missed. The transect survey carried out is suitable for the detection of activity of Noctule, *Myotis* species and *Pipistrelle* Bat species.

1.8.3.32 Internal inspections of the buildings for evidence of bat activity were not carried out

Evaluation Methodology

1.8.3.33 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described by Ratcliffe (1977) and the Nature Conservancy Council (1989). These are; size (extent), diversity, naturalness, rarity, fragility, typicalness, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.

1.8.3.34 Government advice on wildlife, as set out in *Planning Policy Statement: Biodiversity and Geological Conservation* (PPS9) has been taken into consideration. *The EC Habitats Directive*, *The UK Biodiversity Steering Group Report* (1995) and *The Gloucestershire Biodiversity Action Plan* have been taken into account in the evaluation of the site.