



**Central Swimming Pool, Battle Road,
Reading, Berkshire RG1 7NU**

Ecological Impact Assessment

February 2018

on behalf of Reading Borough Council

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1 Introduction

1.1 Site Description

Reading Central Swimming Pool (referred to within this report as “the site”) is located to the south side of Battle Street, at its junction with Bedford Road, within the town of Reading, Berkshire. The Ordnance Survey grid reference for the site SU 7066 7350.

The site includes a building and an area of hard-standing located to the building’s western side. The building, which houses the swimming pool and associated facilities, has an arrangement of flat-roofed sections of varying height and is constructed from a mixture of brick and concrete panels. The building is believed to date from the mid-20th Century.

Areas of tarmacked hard-standing to the western side of the building serve as a car park. A smaller area of hard-standing is present to the east of the building and serves as a bin storage/service area. The site is marked by brick walls along its eastern boundary and most of its southern boundary. The northern boundary is formed by the pavement of Battle Street, while the western site boundary is marked by walls and garden fences of adjacent residences.

The site is situated in an urban environment and is surrounded by roads and built development within the town of Reading, including residential, commercial and industrial areas. The River Thames, and associated habitats, are located approximately 1km to the north of the site.

1.2 Proposed Works

There is a proposal to demolish the existing building.

1.3 Aims of Study

The aims of this study are to describe and evaluate the habitats present within the site and to assess the potential for the site to support protected and notable species. The report discusses the likely impacts of the proposed demolition of the building on the ecology of the site, on valued habitats and on protected/notable species. The study also makes recommendations for appropriate mitigation measures and habitat enhancement with regard to habitats and species. The need for further ecological survey work is discussed in light of the impact assessment.

One specific aim of this study is to survey the building for bats and/or evidence of bats. The study assesses the overall potential of the building to support roosting bats and discusses the likely impact on bats and their habitats as a result of the proposed demolition of the building. The requirement for further bat surveys is discussed in light of the impact assessment on bats, as well as the potential need for a European Protected Species (bat) Mitigation Licence.

2 Methodology

2.1 Desk Study

The Thames Valley Environmental Records Centre (TVERC) was contacted to gather records that it holds for protected and notable species, of nature conservation importance from within a 1km radius of the site.

The Multi-Agency Geographic Information for the Countryside (www.magic.gov.uk) website was searched for information regarding internationally protected sites (e.g. Special Areas of Conservation) within 5km of the site and statutory sites of nature conservation importance (e.g. Sites of Special Scientific Interest) within a 1km radius.

Other Internet resources interrogated as part of the desk study include:

- The Ordnance Survey - www.ordnancesurvey.co.uk
- Bing Maps - www.bing.com/maps
- Old Maps - www.old-maps.co.uk
- Google Earth - www.earth.google.co.uk

Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, the UK Post-2010 Biodiversity Framework (formerly the UK Biodiversity Action Plan) and the Reading Biodiversity Action Plan (BAP) were also consulted to gather information pertaining to priority habitats and species for conservation action at the national and local level.

Aerial photography interpretation was used to place the study sites into an ecological context and to provide information on the nature of the habitats beyond the site boundary. The information gathered is used to put the site into an ecological context and to provide a baseline to the habitat assessment.

2.2 Extended Phase 1 Habitat Survey

An extended Phase 1 Habitat Survey was undertaken on 25th January 2018 by Owen Crawshaw BSc *GradCIEEM*. A walkover of the site was conducted, and a description of the habitats present was prepared using standard Phase 1 Habitat Survey methodology (JNCC 2010).

Target notes were also prepared on features of particular ecological interest within the site and an assessment was made of the site's potential to support protected and notable species (such as species listed under Section 41 of the NERC Act 2006).

The survey included observations and recording of invasive plant species (plant species listed on Schedule 9 of the Wildlife & Countryside Act 1981) such as Japanese knotweed *Fallopia japonica*.

2.3 Initial Bat Survey & Roost Assessment

An initial bat survey and bat roost assessment was undertaken on 25th January 2018 by Owen Crawshaw BSc *GradCIEEM*. Mr Crawshaw holds a licence from Natural England to survey for bats within all counties of England (WLM-A34-Level 1 2016-26589-CLS-CLS) and has over three years of experience in undertaking bat surveys.

A detailed survey of the building was undertaken using a 1 million candle-power torch and close-focusing binoculars in order to look for bats and/or evidence of bats and to assess the potential of the building to support roosting bats. The elevations of the building were inspected for evidence of bats including, bat droppings, urine stains, feeding remains (such as moth wings) and characteristic fur staining around access points.

Notes were made on the relative freshness, shape and size of bat droppings and the location and quantity of any feeding remains. 'Clean' gaps and crevices within the structure of the building were looked for as this can indicate where bats may have gained access to the interior spaces and the fabric of the walls.

The bat survey was undertaken according to best practice guidelines published by the Bat Conservation Trust (Collins, 2016) and the *Bat Workers Manual* (JNCC, 2012).

The study also takes into account the structure and ecological context of the building, including the following factors which may increase the likelihood of roosting bats being present:

- Age of the building (pre-20th Century or early 20th Century construction)
- Nature of construction; traditional brick, stone or timber construction
- Large and complicated roof void with unobstructed flying spaces
- Large (>20 cm) roof timbers with mortice/tenon joints, cracks and holes

- Entrances and gaps for bats to fly and crawl through
- Poorly maintained fabric providing ready access points for bats into roofs, walls; but at the same time not being too draughty and cool.
- Roof warmed by the sun, south-facing roofs in particular
- Weatherboarding and/or hanging tiles with gaps
- Undisturbed roof voids
- Buildings and built structures in proximity to each other providing a variety of roosting opportunities throughout the year
- Buildings or built structures close to good foraging habitat, in particular mature trees, parkland, woodland or wetland, especially in a rural setting.

Trees within the site were also assessed for their potential to shelter roosting bats. The survey was undertaken from ground level, with trees inspected for potential roost features.

Potential roost features (PRFs) that may be used by bats include (Collins 2016):

- woodpecker holes;
- rot holes;
- hazard beams:
- other vertical or horizontal cracks and splits (such as frost cracks) in stems or branches;
- partially detached bark;
- knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar;
- man-made holes (e.g. cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems;
- cankers (caused by localised bark death) in which cavities have developed;
- other hollows or cavities, including butt-rot;
- double leaders forming compression forks with included bark and potential cavities;
- gaps between overlapping stems or branches;
- partially detached ivy with stem diameters in excess of 50mm; and bat, bird or dormouse boxes

The following criteria are used for as guidelines for assessing the potential suitability of buildings and trees for bats (Collins, 2016):

Table 1. Criteria for the assessment of buildings and trees for roosting bats (Collins 2016).

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after the presence is confirmed).

Suitability	Description of Roosting Habitats
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitats.

In addition to the bat survey, the buildings were checked for evidence of nesting birds including old birds' nests, bird droppings, feathers and eggs.

2.4 Badger Survey

A badger survey was undertaken on 25th January 2018 by Owen Crawshaw *BSc GradCIEEM*. The site was surveyed for badger setts and evidence of badger activity in accordance with standard methodology (Harris, Creswell & Jeffries, 1989).

The survey involved a walkover to look for active and inactive badger sett entrances and evidence of badger activity including trackways, footprints, latrines/dung pits, badger hairs and foraging scrapes.

Where access permitted, the badger survey included areas up to 30m from the site boundary.

2.5 Evaluation Methodology

The evaluation of habitats follows the geographic frame of reference presented within the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal* (CIEEM 2016). The Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines recognise that ecological evaluation is a 'complex and subjective process' but provides key considerations to apply when 'applying professional judgement to assign values to ecological features and resources'.

These include consideration of geographic frame of reference; site designations and features; biodiversity value; large populations or important assemblages of species; potential or supporting value; social value and economic value.

Focusing on assessments of biodiversity value, there are various characteristics that can be used to identify ecological resources or features that are likely to be important in terms of biodiversity. These include:

- Rare or uncommon species in the local, national or international context;
- Endemic or locally distinct sub-populations of a species;
- Species on the edge of their distribution;
- Notably large populations of animals or concentration of animals considered uncommon or threatened in a wider context;
- Species, rich assemblages of plants or animals;
- Ecosystems and their component parts, which provide the habitats required by the above species, populations and/or assemblages;
- Plant communities (and associated animals) considered typical of valued natural/semi-natural vegetation types; and
- Habitat diversity, connectivity and/or synergistic associations.

In this report, habitats are assigned to a value relating to their geographic frame of reference, using the following scale:

- International
- UK
- National (England)
- Regional (South East)
- County (Berkshire)
- District (Borough of Reading)
- Local (Reading Town Centre)
- Immediate zone of influence of the site (Site)
- Negligible

Regarding protected and notable species, an assessment of habitat suitability and potential presence of species has been undertaken, given the results of the desk study and field survey.

3 Results & Discussion

3.1 Sites of Nature Conservation Importance

A summary of sites of nature conservation importance that are present within a 1km radius of the site is given below; please refer to Appendix 3 for full citations of these designated sites. Species records are discussed within Section 3.3, alongside the results of the field survey.

3.1.1 Statutory Sites

There are no statutory sites of national conservation importance, such as Sites of Special Scientific Interest, within a 1km radius of the site.

There are no statutory sites of international conservation importance, such as Special Areas of Conservation, within a 5km radius of the site.

3.1.2 Non-statutory Sites

The site does not form part of a Local Wildlife Site, and there are no Local Wildlife Sites adjacent to the site boundary.

3.1.2.1 Holy Brook Local Wildlife Site

Holy Brook Local Wildlife Site (LWS) is located approximately 850m to the south-east of the site. The LWS is an example of a chalk stream (a habitat of principal importance as listed under Section 41 of the NERC Act 2006). A number of notable invertebrates have been recorded from the site and water vole *Arvicola amphibius* has been recorded in the central and western sections.

3.1.2.2 Cow Lane Depot Local Wildlife Site

Cow Lane Depot LWS is a triangular area of land located approximately 400m to the north-west of the site, within the railway network. The LWS contains a mosaic of habitats including woodland, grassland and standing water.

3.2 Habitats

The site comprises a building and areas of hard-standing. Some planted trees are associated with the area of hard-standing. Photographs of the site are presented in Appendix 1. A Phase 1 Habitat Plan is provided within Appendix 3.

3.2.1 Building

The building houses a swimming pool and associated facilities. For the purposes of this report, the building is described in seven sections (see Figure 1). The building is believed to have been constructed at some time during the middle of the 20th Century.



Figure 1. An aerial photograph of the building at the Central Swimming Pool, Reading. The different sections of the building are indicated and numbered; Section 1 to Section 7.

Section 1

Section 1 is arranged over a single storey and is constructed from brick. The western elevation contains glazed windows and a wooden-framed entrance porch; there is a service entrance at the northern elevation. Wooden bargeboards are present at the eaves, with wooden boxed eaves at the section's western end. The western part serves as a reception area, with changing facilities to the east. The section has a flat roof which is covered with a thermoplastic membrane.

Section 2

Section 2 is the largest and tallest section of the building, and houses the main swimming pool. The majority of the section is arranged over a single level, with a raised mezzanine floor and spectator seating along its northern side. The walls are constructed from concrete render panels, with a glazed window within its western elevation. There are strips of plastic panelling and glazed windows at the upper level of the northern elevation. Plastic boxed gutters are present at the eaves of the northern and southern elevations. The interior space has a false ceiling (suspended panels) with a void above measuring approximately 1.5-2m in height. The roof is pitched at a very shallow angle and is covered by a thermoplastic membrane.

A gap was observed on the exterior, at the section's south-eastern corner; the feature is present at the junction between a concrete wall pillar, the roof of the section and the boxed guttering (please refer to Figure 2 for a photograph of this feature).



Figure 2. Gap on the exterior of Section 2 of the Central Swimming Pool building, above a concrete pillar and below the guttering. This is the only external feature that was noted on the building.

Section 3

Section 3 serves as a plant room and is arranged over a single storey. The section contains water tanks and heaters to service the swimming pools. The walls are constructed from brick and there are four metal panels within the southern elevation.

Flat-roofed generator houses are present at the eastern and southern elevations and are constructed from brick, with flat roofs of bitumen roofing felt. The main roof is flat and covered in a thermoplastic membrane. A ventilation/service tower extends upwards from the main roof and is constructed from panels of corrugated sheet metal.

Section 4

Section 4 contains a smaller pool for diving. The eastern and western elevations are of brick, whereas the southern elevation of the section contains glazed windows separated by concrete pillars. Concrete render panels and corrugated metal sheeting are present below and above the windows, respectively. The flat roof is covered by a thermoplastic membrane.

Section 5

Section 5 houses a smaller children's pool and is arranged over a single storey. The walls are of brick construction and contain glazed windows at the western and southern elevations. The flat roof is covered by a thermoplastic membrane.

Section 6

Section 6 is arranged over a single storey and contains additional changing facilities. The walls are of brick construction. The flat roof is covered by a thermoplastic membrane.

Section 7

Section 7 is arranged over two levels and houses a number of staff offices. The walls are of brick construction. The flat roof is covered by a thermoplastic membrane.

The roofs of the building are almost all flat and covered with a thermoplastic membrane. There are no roof spaces, lots or attics within the building. Although there is a false (suspended) ceiling within Section 2, this space is not considered to be suitable for roosting bats.

Overall the building is in a very good state of repair, with solid brick and concrete render walls, glazed windows and intact eaves and window frames. Only one external feature was noted within Section 2 and this gap was thoroughly inspected during the survey. As a result of the above, the building is considered to be of **negligible ecological value**.

3.2.2 Hard-standing

Areas of tarmacked hard-standing are present to the western and southern sides of the building. An additional area of hard-standing is created by a slab of concrete paving to the east of the building.

Areas of hard-standing are of **negligible ecological value**.

3.2.3 Trees

Four trees are present within the car park to the western side of the building. These include one semi-mature cherry *Prunus* sp., two young crab apples *Malus* sp. and two young hornbeams *Carpinus betulus*.

The young/semi-mature trees are considered to be of **ecological value at the site level**. The trees are planted as part of the landscaping of the car park, and do not form part of a wider habitat network.

3.2.4 Ruderal Vegetation

Small areas of ruderal vegetation have developed along the southern and western boundaries within areas of bare ground adjacent to hard-standing. Species include pellitory-of-the-wall *Parietaria officinalis*, buddleia *Buddleja davidii*, herb Robert *Geranium robertianum*, dandelion *Taraxacum officinale*, ragwort *Senecio jacobaea*, cleavers *Galium aparine* and chickweed *Stellaria media*.

Areas of ruderal vegetation are of **negligible ecological value**.

3.2.5 Summary of Habitat Evaluation

Habitat	Evaluation (geographic frame of reference)
Building	Negligible
Hard-standing	Negligible
Trees	Site
Ruderal Vegetation	Negligible

3.3 Species

The following sections collate data collected during the site survey of 25th January 2018 with the species data held by the Local Records Centre (TVERC) in order to assess the suitability of the habitats within the study for protected species.

The TVERC holds records of protected/notable plant, invertebrate, amphibian, reptile, bird and mammal species from within a 1km radius of the site. A summary of the most pertinent species, given

the nature of the habitats within the site and the surrounding landscape, are provided below. Full details of protected/notable species records can be found in Appendix 6.

3.3.1 Plants

Habitats within the site are not considered suitable for rare/protected species of plant.

No species of invasive plant (as listed under Schedule 9 of the Wildlife & Countryside Act 1981) were recorded within the site.

3.3.2 Invertebrates

There are a number of records for the stag beetle *Lucanus cervus* within Reading, the nearest record comes from a garden located immediately adjacent to the site. Stag beetles are a species of saproxylic insect, requiring dead wood habitat to complete their lifecycle; the larvae feeding on dead or decaying wood. There are no dead wood habitats within the site that could support the stag beetle and this species is considered to be absent.

The Records Centre also holds one record of the small heath butterfly *Coenonympha pamphilus*. This butterfly species occurs in areas of unimproved and semi-improved grassland where its larval stages feed on fine grasses. There are no grassland habitats within the site, and the site is unsuitable for the small heath or other notable species of butterfly.

3.3.3 Amphibians

The TVERC holds no records of amphibians within a 1km radius of the site.

There are no ponds within the site or within 500m of the site boundaries. Habitats within the site and its immediate surroundings are considered to be wholly unsuitable for amphibians during the terrestrial phase of their lifecycle as they offer no shelter or protection.

Given this, amphibians (including the great crested newt *Triturus cristatus*) are considered to be absent from the site.

3.3.4 Reptiles

A small population of slow worms *Anguis fragilis* is known from private gardens located approximately 550m to the south-west of the site. There is also a single record of a common lizard *Zootoca vivipara* approximately 800m to the north-west of the site.

Habitats within the site and its immediate surroundings are considered to be wholly unsuitable for reptiles. Areas of hard-standing offer no shelter to reptiles, and there are no habitat connections via which reptiles could access the site from suitable habitats within the town.

Given this, reptiles are considered to be absent from the site.

3.3.5 Birds

Species of bird recorded within the site during the survey of 25th January 2017 include blackbird *Turdus merula*, woodpigeon *Columba palumbus* and grey wagtail *Motacilla cinerea*.

The TVERC returned a number of records for bird. Several of these records pertain to nest sites of rare/protected species including peregrine *Falco peregrinus* and black redstart *Phoenicurus ochruros*. Both species have been recorded as breeding approximately 700m to the north-east of the site. The records date from 2012.

Urban peregrines breed on tall buildings such as churches and high-rise office blocks. The Central Swimming Pool building is not considered suitable as a nesting site for this species, as the building is unlikely to be tall enough to offer a suitable nest location.

Black redstarts can breed in urban environments within the UK, with gaps in buildings' roofs and walls serving to replicate the crags and crevices of their natural mountainous habitat within the rest of Europe. Favoured nesting sites tend to be close to or surrounded by suitable foraging habitats such as waste ground, railway land, railway sidings and brownfield sites.

The site is located approximately 170m to the south of Great Knolly Street which has been identified within the Reading Biodiversity Action Plan as an area requiring survey effort for black redstarts (see below). The following paragraph is taken from the Reading Biodiversity Action Plan (see Appendix 5 for further details):

"Black Redstarts are only found in a few areas in Southern England. The nearest known breeding pairs to those in Reading are in London along the Thames corridor. Local bird recorders have repeatedly noted Black Redstarts at Slough Sewage Farm and Reading Town Centre. Records in Reading date most recently from the Boar's Head and Merchant's Place 82 READING BIODIVERSITY ACTION PLAN – 2005-2015 off Friar Street (May 2002).

There are also actual and anecdotal records of birds in the Fobney Street area, Reading Station, Queen Victoria Street, Broad Street, Green Park and Battle Hospital site. It is likely that the population has been under-recorded in the town and suitable habitat, including sites listed above, should be surveyed for breeding and overwintering populations as all brown field areas are under immediate pressure of development. This would include County Lock area, Napier Road, Great Knolly Street/ Cattle Market and all railway lines and sidings."

Given the above, there is the potential for black redstarts to be present within the local area surrounding the Central Swimming Pool. However, the building is considered to be largely unsuitable as a nest site given the very poor nature of the surrounding habitats for foraging, as well as the fact that the building only has one feature on its exterior (the gap above the concrete pillar of Section 2) that could offer access to a potential nest site. No evidence of nesting birds was noted on the exterior of the building during the current survey, and no evidence of nesting was noted specifically from the gap above the concrete pillar of Section 2.

A number of records of swift *Apus apus* exist from the local area. This species can use gaps and crevices within the roofs and eaves of tall buildings as nesting sites. No evidence of nesting birds was noted within the one external feature of the building; the gap above the concrete pillar of Section 2.

Given the above discussions, nesting birds, including peregrine, swift and black redstart, are considered to be absent from the building.

Whilst birds can also use trees for nesting, there is no evidence of nesting within the four trees of the car park and these trees are considered to be largely unsuitable for nesting, given the very poor nature of the surrounding habitats and the fact that car park (and trees) are likely to experience regular disturbance from human activity.

3.3.6 Bats

The TVERC holds records for noctule *Nyctalus noctula*, Daubenton's bat *Myotis daubentonii*, common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* from within the 1km search area. The most recent records date from 2015 and some records pertain to roosting bats within buildings within the town of Reading.

No evidence of roosting bats was recorded during the internal and external inspection of the building, and the building is assessed as having 'negligible' bat roost potential (Collins 2016). This is due to the lack of roof/loft spaces, the modern materials of construction, the age and structure of the building. Although there is a suspended ceiling within Section 2, this is not considered to provide a suitable habitat for roosting bats.

There is no evidence to indicate that roosting bats have used the gap above the concrete pillar of Section 2 as a roost site, and this feature is considered to be unsuitable for roosting bats. This is due to the open nature of the gap and the fact that it does not lead into a narrow crevice that would be suitable for roosting and shelter.

No potential roost features were observed on any of the trees within the car park to the western side of the site, and all trees are assessed as having 'negligible' bat roost potential.

The habitats which surround the site are very poor for bat activity and roosting bats are considered to be absent from the trees and building.

3.3.7 Badgers

There is one record of a badger (a road casualty) from an unknown location within the local area.

No evidence of badgers *Meles meles* was observed during the survey. In particular, there are no badger setts within the site, or within accessible areas up to 30m of the site boundary.

The building and hard-standing of the site are not suitable habitats for badgers, and the species is considered to be absent.

3.3.8 Other Mammals

Hedgehogs *Erinaceus europaeus* have been recorded within the local area.

Habitats within the site are not considered suitable for this species.

3.3.9 Summary of Species Assessment

Species	Assessment
Plants	Rare or uncommon plants are absent.
Invertebrates	Rare or uncommon invertebrates are absent.
Amphibians	Absent, no suitable habitats.
Reptiles	Absent, no suitable habitats.
Birds (nesting)	Absent. One feature of Section 2 of the building provides a potential nest site.
Bats (roosting)	Absent, no suitable habitats.
Badgers	Absent, no suitable habitats.
Other mammals	Absent, no suitable habitats.

3.4 Relevant Legislation & Policy Guidance

3.4.1 Nesting Birds

Nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. The nesting season for most species is between March and August, inclusive.

The black redstart is listed on Schedule 1 of the Act which means that it is protected from disturbance whilst nesting, and whilst the nest is being built.

3.4.2 *The Natural Environment and Rural Communities Act 2006*

Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on the Secretary of State to publish, review and revise lists of living organisms and types of habitat in England that are of principal importance for the purpose of conserving English biodiversity. It also requires the Secretary of State to take, and promote the taking of, steps to further the conservation of the listed organisms and habitats. This is important in the context of planning decisions as the National Planning Policy Framework (paragraph 117) affords planning policy protection to the habitats of species listed by virtue of Section 41.

The current list of species and habitats is the same as those listed with the UK Post-2010 Biodiversity Framework.

There are no habitats listed within Section 41 of the NERC Act 2006 that are considered to be relevant to the site.

Species listed within Section 41 of the NERC Act 2006 that are considered to be relevant to the site include:

- Black redstart (known to be present within the town of Reading, the species uses buildings as nest sites)

3.4.3 *National Planning Policy Framework (NPPF)*

The National Planning Policy Framework (NPPF) was published in March 2012 and this new document forms a key part of the Government's reforms to make the planning system less complex and more accessible, to protect the environment and to promote sustainable growth. The NPPF states that the planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, geological conservation interests and soils;
- recognising the wider benefits of ecosystem services;
- minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife or geodiversity sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites, so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks. To minimise impacts on biodiversity and geodiversity, planning policies should:

- plan for biodiversity at a landscape-scale across local authority boundaries;
- identify and map components of the local ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors and stepping stones that connect them, and areas identified by local partnerships for habitat restoration or creation;

- promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan;
- aim to prevent harm to geological conservation interests; and
- where Nature Improvement Areas are identified in Local Plans, consider specifying the types of development that may be appropriate in these Areas.

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- proposed development on land within or outside a Site of Special Scientific Interest likely to have an adverse effect on a Site of Special Scientific Interest (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of Sites of Special Scientific Interest;
- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;
- opportunities to incorporate biodiversity in and around developments should be encouraged;
- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and
- the following wildlife sites should be given the same protection as European sites:
 - ❖ potential Special Protection Areas and possible Special Areas of Conservation;
 - ❖ listed or proposed Ramsar sites; and
 - ❖ sites identified, or required, as compensatory measures for adverse effects on European sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites

The Government will “now embark on a new exercise to consider what underpinning guidance continues to be needed” with the outcome of this process being “an appropriate and easy to use set of guidance, focussing on issues that require national expression, to support implementation of the National Planning Policy Framework.” The Government has “not established the process or set a timetable” for this yet and “until such time as the guidance review is complete, the existing guidance where relevant can still be used.” Regarding what guidance is still relevant, “Annex 3 of the NPPF indicates that ODPM Circular 06/2005: *Biodiversity and Geological Conservation - Statutory Obligations and their Impact within the Planning System* (Circular 06/05) is still relevant. This Circular provides administrative guidance on the application of the law relating to planning and nature conservation as it applies in England.

3.4.4 UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework succeeds the UK Biodiversity Action Plan (BAP) and ‘Conserving Biodiversity - the UK Approach’. The Framework continues the conservation work initiated by the UK BAP following the establishment of the Convention on Biological Diversity in 1992. The purpose of the Biodiversity Framework is to set a broad enabling structure for conservation action across the UK until 2020, in summary:

- To set out a shared vision and priorities for UK-scale activities, in a framework jointly owned by the four countries, and to which their own strategies will contribute.

- To identify priority work at a UK level which will be needed to help deliver biodiversity targets and the EU Biodiversity Strategy.
- To facilitate the aggregation and collation of information on activity and outcomes across all countries of the UK, where the four countries agree this will bring benefits compared to individual country work.
- To streamline governance arrangements for UK-scale activity.

Many of the tools developed under UK BAP remain of use, for example, background information about the lists of priority habitats and species and the plans for the priority species and habitats agreed under UK BAP still form the basis of the Framework. Priority habitats and species that are covered under the Framework are the same as those within the former UK Biodiversity Action Plan and are (largely) the same as the habitats and species that are listed within Section 41 of the NERC Act 2006.

4 Impact Assessment

4.1 Sites of Nature Conservation Importance

4.1.1 Statutory Sites

There are no predicted impacts on statutory sites of nature conservation importance.

4.1.2 Non-statutory Sites

There are no predicted impacts on Holy Brook LWS or Cow Lane Depot LWS. This is due to the distance of the site from the Local Wildlife Sites, and the nature of the proposals which involve the demolition of a single building.

4.2 Habitats

The proposals will result in the loss of the building, areas of hard-standing and some ruderal vegetation. All of these habitats are of negligible ecological value and thus, habitat loss will result in no foreseeable ecological impacts.

Loss of young/semi-mature trees will have no foreseeable ecological impacts beyond the site level and can be compensated for through replacement planting. The proposals will have no foreseeable impacts on ecology within the wider local area.

4.3 Species

4.3.1 Plants

There are no invasive plant species within the site.

4.3.2 Birds

Although there is no evidence of nesting birds, one feature of the building has been identified as offering a potential nest site to black redstarts. Given this, there is the potential for an active birds' nest to be destroyed, if a nest is present, if demolition is undertaken during the breeding bird period (from March to August inclusive).

4.3.3 Bats

Demolition of the building will have no foreseeable impacts on bats or their roosts sites.

There is no evidence to suggest that the building is being used as a place of shelter/protection by roosting bats and the building is considered to have 'negligible' potential to offer shelter to bats within an undetectable roost site.

As a result of this conclusion, works to the building are unlikely to result in any significant impacts on bats or the places that they use for breeding, shelter and/or protection (roosts) and no specific compensation measures are considered necessary (Mitchell-Jones 2004).

Since no significant impacts on bats are predicted under The Conservation of Habitats and Species Regulations 2010, a European Protected Species (bat) licence will not be required for the proposed works to proceed. Since there are no predicted impacts on bats or their habitats, it is not necessary to consider the 'three tests' of The Conservation of Habitats and Species Regulations 2010 in this instance.

4.3.4 *Badgers*

There are no predicted impacts on badgers.

4.3.5 *Other Species*

There are no predicted impacts on other species.

5 Recommendations

5.1 Habitats

It is recommended that the loss of trees is compensated through native tree planting. Species which are considered suitable for the site include:

- Beech *Fagus sylvatica*
- Crab apple *Malus sylvestris*
- English oak *Quercus robur*
- Field maple *Acer campestre*
- Hornbeam *Carpinus betulus*
- Wild cherry *Prunus avium*

5.2 Species

It is recommended that the building is demolished outside of the breeding bird period, avoiding March to August, inclusive. If this is not possible, it is recommended that a breeding bird survey is undertaken to determine the presence or absence of nesting birds.

Three survey visits should be undertaken (two hours survey effort), with one week between each visit, in the optimum survey season (April to July inclusive). Surveyors should be equipped with binoculars and should record any observations of black redstarts. Evidence of breeding will be taken to include:

- Nest site with young located
- Fledged young
- Singing males

If nesting by black redstarts is recorded during the breeding bird surveys, a mitigation strategy will be developed to minimise impacts on the species and provide mitigation within the developed site. Mitigation measures may include:

- Sensitive timing of demolition to avoid breeding period
- Creation of green/brown roofs on new buildings
- Installation of suitable nest boxes for black redstarts and swifts

6 References

CIEEM. 2016. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

JNCC. 2010. *Handbook for Phase 1 Habitat Survey - a technique for environmental audit*. JNCC First published 1990; reprinted in 2010.

Greater Manchester Biodiversity Project. 2008. *Make Room for Black Redstarts – A species action plan for Greater Manchester*.

Reading Biodiversity Action Plan – 2005-2015

7 Appendix 1. Photographs



Photograph 1. The Central Swimming Pool, Reading viewed from the west. The photograph shows the western elevation of Sections 1, 7 & 6.



Photograph 2. The flat roof of Section 6.



Photograph 3. Sections 1 & 2 of the building viewed from the north.



Photograph 4. Sections 2 & 3 of the building viewed from the east.



Photograph 7. The interior of Section 2.



Photograph 8. The roof of Section 4 of the building (looking west).



Photograph 9. The southern elevation of Section 3 viewed from the south.

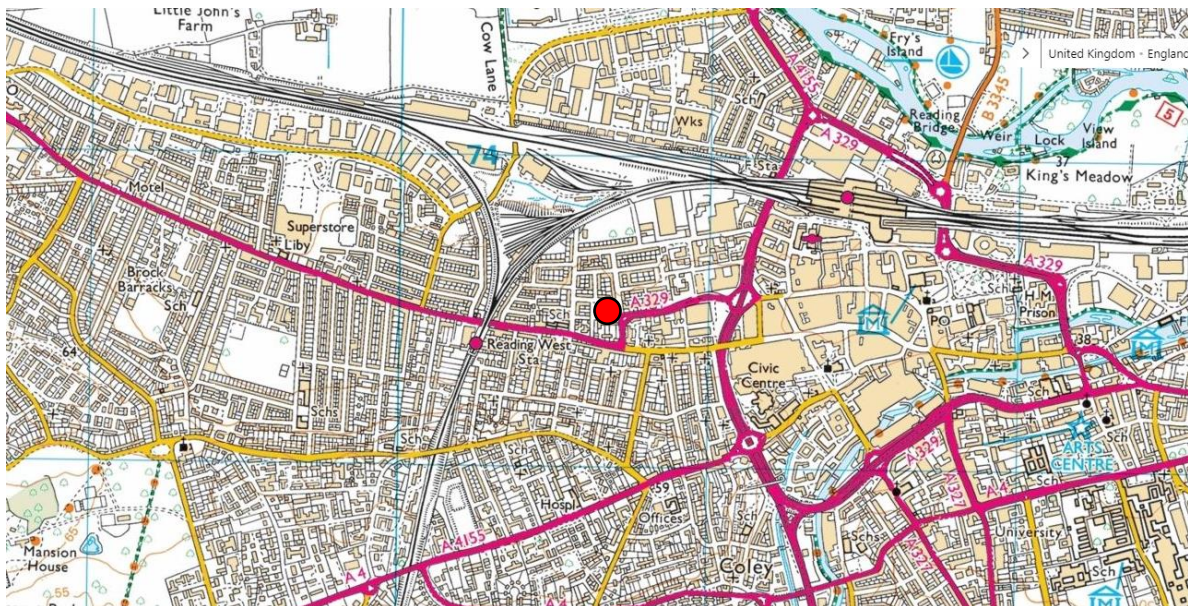


Photograph 10. The car park at the western side of the site.

8 Appendix 2. Site Location Plans

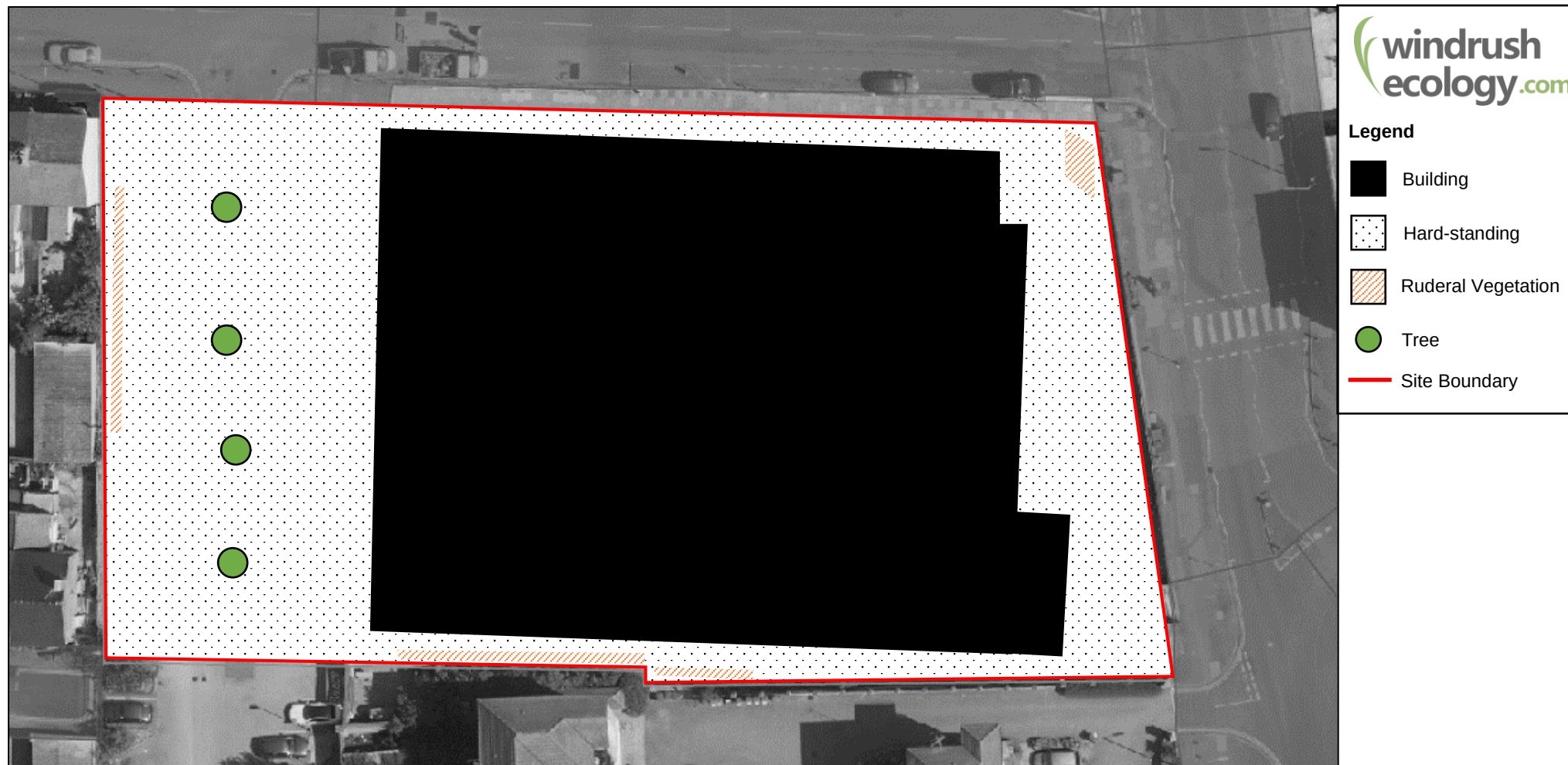


Aerial photograph showing the location of the Central Swimming Pool, Reading (outlined in red)
Source: www.bing.com/mapspreview/



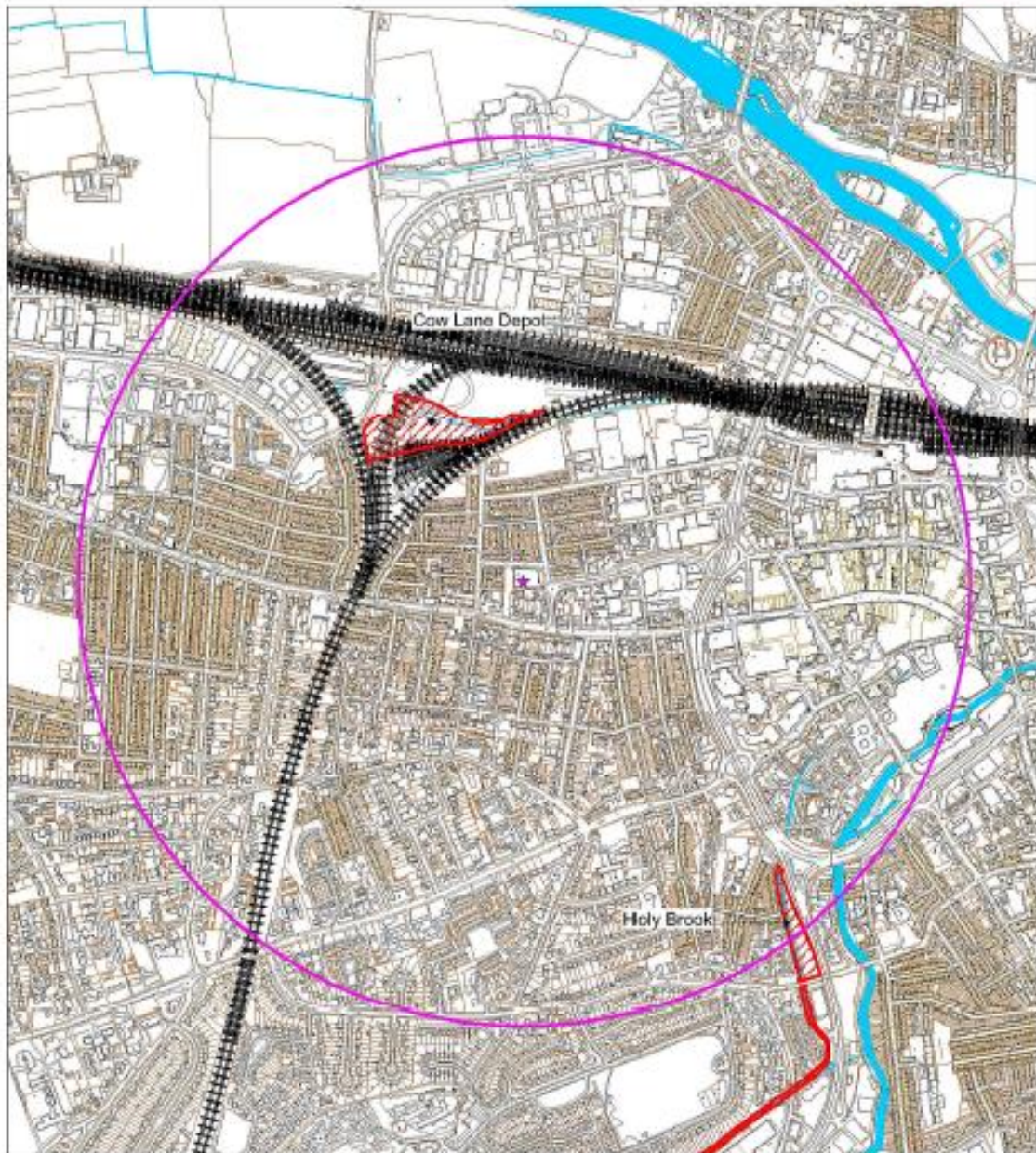
Ordnance Survey map showing the location of the site (indicated by the red dot) within the local area.
Source: www.bing.com/mapspreview/

9 Appendix 3. Phase 1 Habitat Plan



10 Appendix 4. Non-Statutory Sites Map and Citations

Central Swimming Pool, Reading Designated Wildlife Sites Map



-  Local Wildlife Sites
-  Search Area
-  Search central grid reference

Scale: 1:12500

Map produced by Thames Valley Environmental Records Centre in 2018
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Berkshire Local Wildlife Site Citation**HOLY BROOK**

Site Code: SU77B01

Grid Reference: SU703718

Length (km): 4.5

Local Authority: Reading Borough Council

Last Survey Date(s): 11/06/2012

Date Selected or Reconfirmed: 2014

Site Description

This site was originally designated as a number of separate sites which have now been combined. These were the stretch south of Berkley Avenue and the stretch between Berkley Avenue and the Reading Inner Distribution Road. The Holy Brook is a stream that carries water from and emptying back into the River Kennet, a chalk river. The western end of the site lies just west of the Burghfield Road although the brook originates further west near Theale. The central section it flows through the Fobney and River Kennet Meadows. To the east its course is adjacent to housing and through commercial and industrial areas. The site ends at the Reading Inner Distribution Road. Here the Brook is canalised within concrete revetments which are absent in the rest of its length. Alder and willows line the banks and a variety of wetland species are found along the banks with stands of reed sweet-grass, hemlock water-dropwort and occasional water dock. Water-crowfoots (*Ranunculus aquatilis/fluitans*) were recorded in the Brook in 1987 and 1994. A number of notable invertebrates have been recorded in Holy Brook and water vole has been recorded in the central and western sections.

SECTION 41 HABITAT(S) OF PRINCIPAL IMPORTANCE: Chalk river.

PROTECTED SPECIES:

SECTION 41 SPECIES OF PRINCIPAL IMPORTANCE:

RED DATA BOOK (RDB) SPECIES RECORDED:

NATIONALLY SCARCE (NSC) SPECIES RECORDED:

BIRDS OF CONSERVATION CONCERN (BoCC) RECORDED:

Red List Species: House sparrow

Amber List Species: Mute swan

TYPICAL SPECIES OF WETLAND HABITATS (2004): Common alder, reed sweet-grass, water dock, goat willow, crack willow, common osier, hemlock water-dropwort (7).

Berkshire Local Wildlife Site Citation**COW LANE DEPOT**

Site Code: 77B03

Grid Reference: SU70449 73848

Area (ha): 1.544

Local Authority: Reading Borough

Last Survey Date(s): May 2004

Date Selected or Reconfirmed: Retained 2004

Site Description

A small isolated, triangular site bounded by a railway track, situated towards the centre of Reading. The site forms a mosaic of habitats ranging from willow scrub with mature trees, to open standing water with swamp to ruderal and tall herb grassland. The site has a varied topography with a steep north facing slope colonized by buddleia, hazel and goat willow. Cow Lane Depot provides a wildlife corridor in an urban landscape.

Standing water has collected at the centre of the site where stands of greater pond sedge and common reed/mace swamp (with affinities to an S6/12 NVC community) form a mosaic with open water and areas of encroaching willow scrub. In 1985 the site consisted of a phragmites reedbed, which was not recorded in the 2004 survey.

Areas of willow scrub are dominated by crack willow with some mature trees and a shaded ground flora of predominantly nettle and areas of dense bramble. A stagnant, shaded ditch lies to the north with little vegetation and some litter has collected. Adjacent to the railway track lies a recently disturbed area that consists of a ruderal type grassland. Species include red fescue, creeping bent, black knapweed, meadow vetchling, teasel and great willowherb.

SECTION 41 HABITAT(S) OF PRINCIPAL IMPORTANCE: None

PROTECTED SPECIES: None recorded

SECTION 41 SPECIES OF PRINCIPAL IMPORTANCE: Reed bunting (1986)

RED DATA BOOK (RDB) SPECIES: None recorded

NATIONALLY SCARCE (NSC) SPECIES: None recorded

BIRDS OF CONSERVATION CONCERN (BoCC):

Red List Species: Reed bunting (1985)

Amber List Species: Kestrel (2004)

TYPICAL SPECIES OF THE HABITAT TYPE(S)

Typical wetland species: hemp agrimony (1986), common reed (1986), greater and lesser pond sedge (2004), soft and hard rush (2004), bulrush (2004), fool's water-cress (1986), great willowherb (2004), marsh horsetail (1986), meadowsweet (1986), branched bur-reed (1986), purple-loosestrife (1986),

Typical grassland species: common sedge (1986), sneezewort (1986)

11 Appendix 5. Black Redstart – Reading Biodiversity Action Plan

BLACK REDSTART (*Phoenicurus ochruros*)

ECOLOGICAL INFORMATION

This is a Robin sized bird of the Thrush family. Indeed it is thought that some of its restrictions in distribution are due to competition with our native Robin (*Erithacus rubecula*)⁴⁷. Rather than a red breast, it has a characteristic red-brown tail and dark grey (male) or brown (female) body.

Key features of its habitat are⁴⁷;

- Tracts of largely undisturbed, sparsely vegetated and rocky terrain
- A good selection of complex structures (piles of scrap cars, cranes, tall buildings, mounds of rubble etc.)
- Herbaceous (not woody) vegetation which attracts insects and provides seeds
- Water, such as canals and rivers, that support a rich selection of flying insects such as Diptera flies and chironomid midges
- Poor or absent shrub layer

It is one of Britain's rarest birds with an estimated 27- 74 pairs breeding nationally although populations may fluctuate widely⁴⁴. There is a known concentration of Black Redstarts in Thames side boroughs of London⁴⁵ though never in large numbers. The bird would appear to use river corridors to disperse so this may account for it reaching Reading. Breeding is usually from March to late July. The bird nests in open structures such as pipes and brickwork in buildings or storage yards, old cars in scrapyards etc.

CURRENT STATUS

Black Redstarts are annual migrants to the UK when they are recorded in woodland areas in small numbers. They are also found on coastal sites in SE England in small numbers. Breeding pairs were only noted after the Second World War when they were discovered using bombsites in London and Birmingham. It has also been recorded in Manchester and Nottingham⁴⁷. The numbers were always low and its presence not often recorded probably owing to a lack of surveying of its usual habitat. Its presence has recently been rediscovered following large scale and intensive redevelopment of industrial areas as part of the government push to restore the use of brownfield sites⁴⁷. Loss of habitat is hence very rapid at the present time.

• NATIONAL and INTERNATIONAL

The Black Redstart is a 'fully protected species': it is listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). This protects the bird, its eggs and nestlings from killing and injury, and damage or destruction to its nest - including any disturbance in the vicinity during nest construction. It is listed in Appendix II of the Bern Convention of Migratory Species of Wild Species. This species is listed on the Amber list of Birds of Conservation Concern⁴⁶.

• REGIONAL and LOCAL

Black Redstarts are only found in a few areas in Southern England. The nearest known breeding pairs to those in Reading are in London along the Thames corridor. Local bird recorders have repeatedly noted Black Redstarts at Slough Sewage Farm and Reading Town Centre⁴⁸. Records in Reading date most recently from the Boar's Head and Merchant's Place

off Friar Street (May 2002). There are also actual and anecdotal records of birds in the Fobney Street area, Reading Station, Queen Victoria Street, Broad Street, Green Park and Battle Hospital site⁴⁸. It is likely that the population has been under-recorded in the town and suitable habitat, including sites listed above, should be surveyed for breeding and overwintering populations as all brown field areas are under immediate pressure of development. This would include County Lock area, Napier Road, Great Knolly Street/ Cattle Market and all railway lines and sidings.

FACTORS CAUSING LOSS OR DECLINE

- ♦ Loss of suitable nesting habitat- old warehousing and similar structures for nesting. It is thought that the availability of nesting habitat is the prime limiting factor on population size and distribution.
- ♦ Loss of suitable feeding habitat - gravel and river mud areas for foraging for insects. In new developments the habitat is often changed ('tidied-up') to better suit other species of birds e.g. provision of thorny shrubs for Robins.

NATIONAL PLAN OBJECTIVES AND TARGETS

The Black Redstart is on the UK-BAP Long List - no action plan has been produced yet.

NEIGHBOURING OR OTHER RELEVANT ORGANISATIONS' OBJECTIVES and TARGETS

The London Wildlife Trust produced an advice note in 1999⁴⁶ with information for Black Redstart habitat provision. This has been used extensively by London Boroughs in creating their Black Redstart BAPs. The London Biodiversity Action Plan, produced by the London Biodiversity Partnership⁴⁹, aims to; conserve and enhance the present London population of Black Redstarts, raise awareness of the species to the general population and planning authorities, architects, landscapers and developers and also to promote the Black Redstart as a cultural icon for London. No other UA's locally have included this species in their BAP.

READING OBJECTIVES and TARGETS

This species is given priority action as it has very specific conservation needs and its habitat is in current and rapid destruction. Actions can easily be taken which will both turn about the fortunes for the Black Redstart while also having other environmental benefits (namely creation of 'brown roofs' on new structures which have the effect of reducing runoff, improving heat insulation of buildings while cooling city centres and can give an improved visual impact).

The overall aims and targets are:

- Increase breeding population numbers across town.
- Halt any further net loss of habitat immediately
- To raise awareness of the Black Redstart to the Reading population generally but especially to architects, planners, landscape managers and developers who are involved in creating the changes to Reading.

LOCAL ACTIONS

Action	Internal	External	Typical	Time	Action to date
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READING BIODIVERSITY ACTION PLAN - 2005-2015

	sections	partners	requirements	Scale	
Promote provision of suitable replacement and new habitat in new developments	Planning	Developers	Stronger roof	2005 - 2008 On-going	Planning condition on one town centre development

LINK Habitat Action Plans

- Urban I

12 Appendix 6. Protected/Notable Species Records

Please refer to separate report from the Thames Valley Environmental Records Centre.