

**Land at Rivermead Leisure Centre
Richfield Avenue
Reading
Berkshire**

Preliminary Ecological Appraisal

Ref: R2302/b

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1 SUMMARY

- 1.1.1** A preliminary ecological appraisal of land at Rivermead Leisure Centre was commissioned by Reading Borough Council in connection with plans to build a new leisure centre on the car park of the existing leisure centre.
- 1.1.2** A survey carried out on June 27th 2019 has shown that the site is not designated for its wildlife interest and does not support UK Priority Habitat (as defined under the NERC Act 2006) and predominantly comprises areas of hard standing and amenity grassland – habitats of no ecological importance.
- 1.1.3** Areas of tall ruderal vegetation, poor semi-improved grassland and dense scrub bordering a ditch crossing the site are small areas of habitat of ecological value at the site level and may support protected and notable species including birds, small mammals and reptiles.
- 1.1.4** The proposed construction of a leisure centre within the existing car parking area will affect habitats of negligible ecological value; areas of higher ecological i.e. scattered trees, tall ruderal vegetation, poor semi-improved grassland and dense scrub should be retained, but if some clearance is essential, precautions should be adopted to avoid nesting birds, small mammals and reptiles.
- 1.1.5** Japanese knotweed and cotoneaster – non-native invasive plants listed on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended) - are present on site and appropriate control measures must be employed to ensure the work does not cause them to spread.
- 1.1.6** The scheme presents opportunities to enhance the ecological value of the site through measures such as installing bat and bird boxes within the new building, providing biodiverse roofs (if appropriate to the building design), planting of native plants to bolster existing areas of native vegetation.

2 INTRODUCTION

2.1 Background

- 2.1.1** John Wenman Ecological Consultancy LLP was commissioned by Reading Borough Council to undertake Preliminary Ecological Appraisal of land at Rivermead Leisure Centre in Reading, Berkshire.
- 2.1.2** The survey was commissioned in connection with plans to construct a new leisure centre on the site of the existing car park; the existing leisure centre – which has been subject to a separate ecological survey – will be demolished.

2.2 Site Location and Context

- 2.2.1** Rivermead Leisure Centre is situated to the north of Richfield Avenue in Reading, Berkshire (OS grid reference SUSU707745).
- 2.2.2** The Leisure Centre is situated to the north of Reading town centre approximately 200m to the south of the River Thames. Open parkland is between the leisure centre and parking and the River. The land immediately to the south of the Richfield Avenue comprises commercial development; extensive open grassland and parkland habitats are situated to west.

2.3 Report Format

- 2.3.1** There follows: an overview of the protected species legislation in **Section 3** and of the national and local wildlife policy background in **Section 4**; details of the survey methods in **Section 5**; Preliminary Ecological Appraisal findings in **Section 6**; a discussion of the survey findings in **Section 7**; with recommendations being presented in **Section 8**. The appendices present: the site photographs (**Appendix 1**); a Preliminary Ecological Appraisal plan with associated target notes (**Appendix 2**); and a plant species list recorded during the survey (**Appendix 3**)

3 LEGISLATIVE BACKGROUND – PROTECTED SPECIES

3.1 Amphibians

3.1.1 The seven native species of amphibian receive protection under the Wildlife & Countryside Act 1981 (as amended). The four widespread and common amphibians (common frog, toad, smooth and palmate newts) receive limited protection – making their sale illegal.

3.1.2 Great crested newts – a relatively widespread species - receives full protection under the Wildlife & Countryside Act 1981 (as amended) and under the Conservation (Natural Habitats &c.) Regulations 2017 ('Habitat Regulations') (as amended). These make it illegal to:

- Intentionally or recklessly kill, injure or take a great crested newt;
- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt;
- Intentionally or recklessly disturb great crested newts; in particular any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

3.1.3 The great crested newt is listed as being of principal importance for the conservation of biodiversity in England, under Section 41 of the Natural Environment and Rural Communities Act 2006, (commonly referred to as a UKBAP Priority species).

3.2 Reptiles

3.2.1 The four widespread reptiles most likely to be encountered (Adder, grass snake, slow worm and viviparous lizard) are protected under the Wildlife & Countryside Act 1981 (as amended). The Act makes it an offence to intentionally kill, injure, possess or sell any of the species.

3.2.2 The four reptile species are listed as being of principal importance for the conservation of biodiversity in England, under Section 41 of the Natural

Environment and Rural Communities Act 2006, (commonly referred to as a UKBAP Priority species).

3.3 Birds

- 3.3.1** All wild birds are protected under the Wildlife & Countryside Act 1981 (as amended). The Act makes it an offence to kill, injure or take a wild bird or to damage or destroy the nest of a wild bird whilst in use or being built.
- 3.3.2** Less common bird species of conservation concern, such as the barn owl and kingfisher, are listed on Schedule 1 of the Act, which makes it an offence to disturb the birds whilst nesting also.

3.4 Bats

- 3.4.1** All British bat species are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:
- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a bat;
 - Deliberately, intentionally or recklessly disturb bats; in particular any disturbance which is likely to impair the ability of bats to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating bats, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species;
 - Deliberately kill, injure or take any bat.

3.5 Badgers

- 3.5.1** Badgers are protected by the Protection of Badgers Act 1992. The Act makes activities such as development that would harm or disturb badgers or damage, obstruct or destroy their setts illegal. If badgers are to be affected by the proposed development, activities can be undertaken only under a licence issued by Natural England.

3.6 Otters

3.6.1 Otters are fully protected by the Wildlife & Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 ('Habitat Regulations'). In summary, the legislation combined makes it an offence to:

- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by an otter;
- Deliberately, intentionally or recklessly disturb otters; in particular any disturbance which is likely to impair the ability of otters to survive, breed or reproduce or nurture their young; or to affect significantly the local distribution or abundance of the species;
- Deliberately kill, injure or take any otter.

3.7 Hazel Dormice

3.7.1 Hazel dormice receive full protection under the Wildlife & Countryside Act 1981 (as amended) and under the Conservation (Natural Habitats &c.) Regulations 2017 ('Habitat Regulations') (as amended). These make it illegal to

- Intentionally or recklessly kill, injure or take a dormouse;
- Possess or control any live or dead specimen or anything derived from a dormouse;
- Damage or destroy a breeding site or resting place or intentionally or recklessly obstruct access to a structure or place used for shelter by a dormouse;
- Intentionally or recklessly disturb dormice; in particular any disturbance which is likely to impair their ability to survive, breed or reproduce or nurture their young; or in the case of hibernating or migrating animals, to hibernate or migrate.

3.7.2 The government's statutory conservation advisory organisation, Natural England, is responsible for issuing European Protected Species licences that would permit activities that would otherwise lead to an infringement of the Habitat Regulations. A licence can be issued if the following three tests have been met:

- **Regulation 55(9)(a)** - there is "no satisfactory alternative" to the derogation, and;

- **Regulation 55(9)(b)** - the derogation “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range” and;
- **Regulation 55(2)(e)** - the derogation is for the purposes of “preserving public health or public safety or other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment”.

3.7.3 Local authorities have a statutory duty under Regulation 7(3) of the Habitat Regulations to have regard to requirements of the Habitats Directive in the exercise of their functions. The Council must therefore consider and determine whether these three tests are likely to be satisfied by an application affecting European protected species before granting planning permission. **N.B. the requirements set out in 3.7.2 and 3.7.3 apply to development that would affect bats, great crested newts and otters, which are European Protected Species also.**

3.8 Water Voles

3.8.1 Since April 2008, water voles have received full protection under Section 9 of the Wildlife & Countryside Act 1981 (as amended). This makes it an offence to intentionally kill, injure or take water voles or to possess or control live or dead water voles or derivatives. It is an offence to intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection or intentionally or recklessly disturb water voles whilst occupying a structure or place used for that purpose.

3.8.2 The water vole is listed as being of principal importance for the conservation of biodiversity in England, under Section 41 of the Natural Environment and Rural Communities Act 2006, (commonly referred to as a UKBAP Priority species).

3.9 Invasive Non-Native Plants

3.9.1 The Wildlife and Countryside Act 1981 (as amended) provides the primary controls on the release of non-native species into the wild in Great Britain. It is an offence under section 14(2) of the Act to ‘plant or otherwise cause to grow in the wild’ any plant listed in Schedule 9, Part II. The species listed in the Act includes Japanese knotweed (*Fallopia japonica*), giant hogweed (*Heracleum mantegazzianum*) and himalayan balsam (*Impatiens glandulifera*).

3.10 Injurious Weeds

- 3.10.1** Five native plants are listed as injurious weeds under the Weeds Act 1959: common ragwort (*Senecio jacobaea*), spear thistle (*Cirsium vulgare*), creeping or field thistle (*Cirsium arvense*), broad-leaved dock (*Rumex obtusifolius*) and curled dock (*Rumex crispus*). The Act means it is not an offence to have these weeds growing on your land and species such as ragwort have significant conservation benefits. However they must not be allowed to spread to agricultural land, particularly grazing areas or land which is used to produce conserved forage. Enforcement notices can be issued following complaints requiring landowners to take action to prevent the spread of these weeds.

3.11 Wild Mammals

- 3.11.1** Under the Wild Mammals (Protection) Act 1996 it is an offence to intentionally inflict unnecessary suffering, as specified by the Act, on any wild mammal.

4 POLICY BACKGROUND

4.1 National Planning Policy

4.1.1 The ODPM Circular 06/2005 provides guidance on the application of the law relating to planning and nature conservation stating that *'the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat.'*

4.1.2 The revised National Planning Policy Framework (NPPF), published in July 2018, sets out the Government's planning policies for England and how they should be applied. Section 15 of the NPPF sets out the approach local authorities should adopt to conserve and enhancing the natural environment when preparing planning policy and when considering planning applications. Paragraph 175 sets out the principles local authorities should apply when determining planning applications as follows:

175. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity 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;*
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact 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;*
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*

- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

4.2 Local Planning Policy

4.2.1 Reading Borough Council makes planning decisions based on the policies within the Core Strategy (adopted January 2008) which sets out their overall planning strategy and important principles for development in Reading.

4.2.2 Policy CS36 within the Strategy sets out the Council's approach to biodiversity and geology when considering planning applications as follows:

a) Development should retain, protect and incorporate features of biodiversity or geological interest (including protected species and their habitats) found within the application site into their schemes.

On sites with recognised biodiversity or geological value, development will not be permitted where there would be a direct or indirect adverse impact on the site, unless it can be clearly demonstrated that: -

i. The need for development clearly outweighs the need to protect the value of the site; and

ii. Appropriate compensation, impact minimization, mitigation and compensation are provided.

b) Local Nature Reserves and Wildlife Heritage Sites will be safeguarded and where possible, enhanced. Permission will not be granted for any development that would adversely affect a designated nature reserve or Wildlife Heritage Site.

c) Any development that would sever or threaten the integrity of an established wildlife link, as indicated on an adopted proposals map, will not be permitted. Where applicable, developments should be designed to protect, consolidate, extend and enhance the network of wildlife links and corridors in and adjoining the Borough, working with neighbouring authorities where appropriate.

5 SURVEY METHODS

5.1 Walkover Survey

5.1.1 A walkover survey was undertaken on the 27th June 2019 by a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). During the survey the habitats present were noted and plotted on a site plan (**Appendix 2**) using definitions based on the standard phase 1 ecological survey definitions (JNCC 2010). Key features of the site were photographed (**Appendix 1**) and plotted on the site plan using target notes (**Appendix 2**).

5.1.2 Any features of ecological importance were recorded, and plant species observed during the survey noted (**Appendix 3**). Particular attention was given to any evidence of the presence of protected species and the site's potential to support such species and those of principal importance for conservation (as defined under Section 41 of the NERC Act 2006).

5.2 Background Data Search

5.2.1 The Thames Valley Environmental Records Centre (TVERC) was commissioned to undertake a search of pre-existing biological records (notable or protected species and statutorily or non-statutorily designated sites) held by the Centre for the survey site and land within a one kilometre radius.

5.2.2 The Multi-Agency Geographic Information for the Countryside (MAGIC) website was referred to for pre-existing data on UK Priority Habitats (as defined under Section 41 of the NERC Act 2006) and to understand the nature of surrounding habitats.

5.3 Survey Constraints

5.3.1 The ecological survey had no significant access constraints with full access being available to the site during the survey; however ecological surveys are subject to seasonal constraints because not all plant and animal species are visible throughout the year and therefore the report represents a snapshot of the site at the time of the survey only. The plant species list presented should not be considered a comprehensive list of species present.

6 PHASE 1 HABITAT SURVEY FINDINGS

6.1 Site Overview

6.1.1 The survey site comprised predominantly of hard standing forming car parking with areas amenity grassland and scattered trees. A play area was situated towards the site's northern edge and there were areas of informal grassland and scrub/ruderal vegetation in areas surrounding the play area and towards the site's south eastern corner. A water-filled ditch with scrub on its banks crossed the site from east to west.

6.1.2 The following Phase 1 habitat types were observed within the survey site boundary during the survey: amenity grassland, poor semi-improved grassland, scattered broadleaved trees, tall ruderal vegetation, introduced shrubs, dense scrub, hard standing/bare ground; and running water.

6.1.3 The habitat types are described below in detail; their distribution is shown on the site plan in **Appendix 2**, photographs of the site are shown in **Appendix 1**.

6.2 Amenity Grassland

6.2.1 Areas of amenity grassland that were cut regularly surrounded the car parking areas and made up the play area and some adjoining grassland (**Photographs 3,4 & 15; (AM1 – AM6)**).

6.2.2 The grassland supported a small number of grasses including perennial rye grass (*Lolium perenne*), a meadow grass species (*Poa* sp.), red fescue (*Festuca rubra*) and common bent (*Agrostis tenuis*). Herbaceous species were present regularly but infrequently within the sward and included: yarrow (*Achillea millefolium*), daisy (*Bellis perennis*), dove's foot cranesbill (*Geranium molle*), dandelion (*Taraxacum officinale* agg.), ribwort plantain (*Plantago lanceolata*), selfheal (*Prunella vulgaris*), creeping cinquefoil (*Potentilla reptans*), common field speedwell (*Veronica persica*) and field bindweed (*Convolvulus arvensis*).

6.3 Poor Semi-improved Grassland

6.3.1 Areas of informally managed grassland managed as a nature area were situated in the site's north eastern corner close to the play area. The grassland had a tall sward with grass species including: cocks foot (*Dactylis glomerata*), Yorkshire fog

(*Holcus lanatus*), rough meadow grass (*Poa trivialis*), false oat grass (*Arrhenatherum elatius*) and barren brome (*Bromus strerilis*). Grasses dominated the sward but some predominantly ruderal and competitive herbaceous species were present including: yarrow (*Achillea millefolium*), broad leaved dock (*Rumex obtusifolium*), spear thistle (*Cirsium vulgare*), hedge bindweed (*Calystegia sepium*), hemlock (*Conium maculatum*), prickly lettuce (*Lactuca serriola*) and common mallow (*Malva sylvestris*) (**Photographs 11 & 12; SI1**).

6.4 Dense Scrub

- 6.4.1** The ditch running through the site was bordered by strips of dense scrub on both banks with occasional trees. The species within the scrub included bramble (*Rubus fruticosus* agg.), hawthorn (*Crataegus monogyna*), sycamore (*Acer pseudoplatanus*), hemlock and elder (*Sambucus nigra*) (**DS1; Photograph 5**). A patch of Japanese knotweed (*Fallopia japonica*) was visible close to the ditch (**Target note 2; Photograph 8**).

6.5 Tall Ruderal Vegetation

- 6.5.1** Patches of tall ruderal vegetation were situated in the south eastern corner of the site (TR1 & TR2) and to the south of the play area (TR3). The areas of vegetation in the south eastern corner supported a range of species including hemlock, creeping thistle (*Cirsium arvense*), broad leaved dock, knotgrass (*Polygonum aviculare*), bristly ox-tongue (*Picris echioides*), scentless mayweed (*Tripleurospermum inodorum*), black medick (*Medicago lupulina*), annual beard grass (*Polypogon monspeliensis*), nettle (*Urtica dioica*) and lesser burdock (*Arctium minor*) (**TR1 & TR2; Photographs 6 & 7**).

- 6.5.2** A patch of tall ruderal vegetation with occasional trees was situated to the south west of the play area and this supported nettle, creeping thistle, bramble, ragwort (*Senecio jacobaea*), false oat grass (*Arrhenatherum elatius*), Yorkshire fog (*Holcus lanatus*), *Pyracantha* sp., elder, ash, *Cotoneaster* sp. and cherry (*Prunus* sp.).

6.6 Scattered Broadleaved Trees

- 6.6.1** A line of mature and semi-mature London plane (*Platanus x hispanica*) trees had been planted within the amenity grassland on the southern boundary (**SBW1; Photograph 4**). The trees lacked any visible features suitable for use by roosting bats or bird species that occupy cavities.

6.6.2 Self-set and planted scattered trees were growing within the amenity grassland and dense scrub to the north and south of the ditch crossing the site and species included cherry (*Prunus* sp.) and sycamore (*Acer pseudoplatanus*); the trees lacked any visible features suitable for roosting bats or cavity nesting birds (**SBW2; Photograph 3**). A mature crack willow (*Salix fragilis*) was prominent in the amenity grassland to the south of the ditch; the tree lacked any visible features suitable for roosting bats or cavity nesting birds (**TN3; Photograph 9**).

6.6.3 Self-set trees and shrubs were abundant within the tall ruderal vegetation in the south eastern corner of the site and included ash (*Fraxinus excelsior*), field maple (*Acer platanooides*), Aspen (*Populus tremula*) and hawthorn (*Crataegus monogyna*) (**SBW3; Photograph 6**). The trees were relatively small and lacked any visible features suitable for roosting bats or cavity nesting birds.

6.6.4 A line of mature willow (*Salix* sp.) trees had been planted in a strip of amenity grass within the car park. The trees lacked any visible features suitable for roosting bats or cavity nesting birds (**SBW4**).

6.7 Introduced Shrubs

6.7.1 Small patches of formal shrub planting were situated on the edges of the main car parking area and supported primarily non-native ornamental species such as *Pyracantha* sp., *Cotoneaster* sp., cherry laurel (*Prunus laurocerasus*), Portugal laurel (*Prunus lusitanica*) and *Viburnum* sp.

6.8 Mesotrophic Running Water

6.8.1 A water filled ditch crossed the site from west to east (**MRW1; Photograph 5**). The ditch was surrounded by dense scrub and had steep sided banks. Reedmace (*Typha latifolia*) was prominent within the ditch.

6.9 Hard Standing

6.9.1 Much of the site comprised tarmac hard standing forming car parking from the leisure centre or pedestrian pathways (**Photographs 2 & 3**).

6.10 Background Data Search Findings

- 6.10.1** The search of data held by Thames Valley Environmental Records Centre (TVERC) shows that the survey site is not statutorily or non-statutorily designated for its wildlife interest.
- 6.10.2** There are no statutorily designated wildlife sites of national or international importance within the search area. There are two Local Wildlife Sites (LWS) (non-statutorily designated sites of importance for wildlife within Berkshire) situated within a 1km radius of the site. The closest is the Warren Woods Complex LWS approximately 345m to the north on the northern banks of the River Thames. The Complex comprises six separate sites supporting semi-natural woodland and fen habitats covering just under 8ha in total and supports notable plant species including white helleborine and Loddon lily. The second LWS within the search area is Cow Lane Depot and is situated about 570m to the south. The Depot is small site covering just over 1.5ha and is surrounded by railway lines. It supports areas of standing water and scrubby woodland supporting a range of notable flora and fauna and acting as a wildlife corridor in an urban area.
- 6.10.3** The land within the site is not classified as a UK Priority Habitat (as defined under Section 41 of the NERC Act 2006). The closest UK Priority Habitat is an area of lowland deciduous woodland situated alongside the Thames just over 100m to the north of the site.
- 6.10.4** The Records Centre's database includes no records specifically for the Leisure Centre; however bird records dating from 2005 gathered on Richfield Avenue are held in the database. These include records of notable song birds typical of suburban parkland and garden habitats such as starling (*Sturnus vulgaris*), dunnock (*Prunella modularis*), swift (*Apus apus*) and house martin (*Delichon urbicum*) and larger species such as mallard (*Anas platyrhynchos*), graylag goose (*Anser anser*), red kite (*Milvus milvus*) and herring gull (*Larus argentatus*).
- 6.10.5** The search of data held by TVERC revealed several protected and notable species within the one kilometre grid square that the site is situated within summarised as follows:

- 6.10.6** There are records of two amphibian species within the search area: smooth newt (*Lissotriton vulgaris*) recorded in 2008 at site in Caversham to the north of the River Thames approximately 250m to the north; and a historic record (dating from 1996) of common frog (*Rana temporaria*) from Caversham just over 500m from the site.
- 6.10.7** Two reptile species have been recorded previously: slow worm (*Anguis fragilis*) recorded in 2008 at a site in Caversham to the north of the Thames approximately 213m to the north; and a second site in Caversham just under 600m to the north east. The database includes a single record of common lizard (*Zootoca vivipara*) from Cow Lane Allotments approximately 600m to the south.
- 6.10.8** There are records of 39 bird species within the search area; however, only 12 of these have been recorded within the last 10 years and include species observed on the Thames path to the north including: kingfisher (*Alcedo atthis*), song thrush (*Turdus philomelos*), starling, grey wagtail (*Motacilla cinerea*), mallard, graylag goose and mute swan (*Cygnus olor*). Species recorded within the urban centre of Reading include black redstart (*Phoenicurus ochruros*) and peregrine (*Falco peregrinus*).
- 6.10.9** There are records of eleven notable plant species within the search area including species typical of woodland and grassland habitats; however, only a single record has been gathered within the last ten years: ragged robin (*Lychnis flo-cuculi*) recorded in 2017 at Caversham Meadows approximately 800m to the east.
- 6.10.10** At least six bat species have been recorded in the search area: serotine (*Eptesicus serotinus*), Daubenton's bat (*Myotis daubentonii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), noctule (*Nyctalus noctula*) and brown long eared bat (*Plecotus auritus*); all of these species have been recorded within the last ten years. The records mainly are of bats in flight; however they include records of roosting brown long eared bat within residential properties just under 700m to the north and approximately 640m to the north.
- 6.10.11** Mammal records include records of hedgehog (*Erinaceus europaeus*) and badger (*Meles meles*). The badger records include records from the 1km grid square within which the site is situated.

7 DISCUSSION

7.1 Assessment of Ecological Value

Habitats

- 7.1.1** The survey site - which during a search of pre-existing data has been shown not to be statutorily or non-statutorily designated for its wildlife interest and therefore not recognised as being of international, national or county level conservation importance - comprised predominantly of hard standing and areas of formally managed and species poor amenity grassland and introduced shrubs, which are typical of urban areas throughout England and of no conservation importance.
- 7.1.2** Areas poor semi-improved grassland, tall ruderal vegetation, scattered trees and dense scrub supported more diverse communities of predominantly native plant species and were more structurally diverse, and as a consequence, were of greater ecological interest within the context of the site, but not of ecological importance in a wider context.
- 7.1.3** The ditch crossing the site, contains water and connects via other watercourses to the River Thames, and with its neighbouring dense scrub, provided habitats likely to support a range of aquatic invertebrate and plant species and is of ecological importance as part of a green corridor locally.

Reptiles

- 7.1.4** Mostly the site is unsuitable for reptiles; however, small patches of marginal tall ruderal, poor semi-improved grassland and scrub habitats provide some limited habitat for reptiles such as the slow worm (*Anguis fragilis*) and grass snake (*Natrix natrix*), which are UK Priority Species and legally protected. There are no pre-existing reptile records for the site but there are records of slow worm within 300m; however, these relate to land to the north of the River Thames. Overall, the site is considered to be low potential for reptiles

Amphibians

- 7.1.5** There are no ponds or standing water on site and mapping shows that there are no bodies of standing water within 500m, and as such, the site and surrounding area

provides no breeding opportunities for amphibians. There are no records for great crested newt (*Triturus cristatus*) - an amphibian receiving full legal protection under UK and European Protected Species legislation. There are pre-existing records of smooth newt and common frog from Caversham to the north of the River Thames (which would act as a barrier to amphibian movement). Great crested newts will typically use terrestrial habitats primarily within 250 metres of a breeding pond and are therefore considered highly unlikely to be found on the site. The lack of large waterbodies nearby means that it is highly unlikely that common toad (*Bufo bufo*) – a UK Priority Species – would be found on site also. Common and widespread amphibians typical of gardens e.g. common frog (*Rana temporaria*) could make use of areas of scrub as cover and foraging habitat if there are garden ponds in nearby residential properties.

Breeding birds

- 7.1.6** The site on the whole is poor habitat for birds and is considered unlikely to support bird communities of conservation importance. The small number of scattered trees and small areas of dense scrub and tall ruderal vegetation provide opportunities for nesting and foraging birds and are of ecological value at the site scale as a result. The birds using these habitats may include notable species of conservation importance recorded nearby and typical of such habitats like dunnock, song thrush and starling.

Bats

- 7.1.7** The site lacks roosting opportunities for bats; however, the trees and dense scrub alongside the ditch, and areas of tall ruderal and semi-improved grassland offer commuting and foraging habitat for bats adapted to suburban environments such as the pipistrelle and brown long eared bats recorded locally. In the context of extensive wetland habitat provided by the River Thames to the north, and extensive woodland habitats beyond the river to the north also, it is considered unlikely that the site is of conservation importance for bats in a wider context.

Hazel Dormice

- 7.1.8** The site lacks habitat suitable for hazel dormice because it lacks dense woodland or scrub habitat connected to woodland that allows animals to move easily through habitats without coming to the ground (English Nature 2006); the scrub on site is of

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limited extent and does not support the species favoured by this species. Furthermore, there are no known records within the local area, therefore, it is considered extremely unlikely that this species would be found on site.

Invertebrates

- 7.1.9** The site as a whole is poor habitat for invertebrates, but the areas of semi-improved grassland, tall ruderal vegetation and dense scrub have some greater structural and botanical diversity that would allow them to support a more diverse invertebrate fauna; the water in the ditch provides some habitat for aquatic species also. Overall, whilst of greater value to invertebrates, these small parts of the site are unlikely to support communities of ecological value beyond the site scale.

Badgers

- 7.1.10** There are pre-existing records of badger (*Meles meles*) within the 1km grid square within which the site sits, but during the survey there were no signs of activity by this species on site, which mostly provides very poor habitat, and therefore it is considered unlikely that badgers are found on site currently.

Other mammals

- 7.1.11** The small areas of tall ruderal vegetation, poor semi-improved grassland and scrub on site is suitable for a range of small mammal species - including species of principal importance for conservation such as the hedgehog (*Erinaceus europaeus*) - to commute, forage and take refuge.
- 7.1.12** The ditch provides habitat that could support water vole (*Arvicola amphibious*). No evidence of the presence of water vole was visible and there are no pre-existing records of water vole in the surrounding area, and therefore, it is unlikely that the site supports this species.

7.2 Impact of Proposals

- 7.2.1** The proposals are for the construction of new leisure centre on site on the car park of the existing centre, which is to be demolished (**N.B.** the final site layout is not available at the time of writing).

Designated Sites

The proposals will have no direct or indirect impacts on statutorily designated sites of national or international importance, or on non-statutorily designated Local Wildlife Sites.

Habitats

- 7.2.2** The proposals will have no impact on UK Priority Habitats or habitats of conservation importance beyond the site.

Bats

- 7.2.3** The proposals will not affect bat roosting sites and if areas of dense scrub and associated trees alongside the ditch, and those on the site margins, are retained, they are unlikely to have a significant impact on bat foraging and commuting habitat in the local area.
- 7.2.4** Lighting can have an impact on bats. Insects are attracted to artificial lighting and several species of bats, including species such as the pipistrelles, noctule, Leisler's bat and serotine, have been shown to be attracted to lighting to forage (Stone *et. al.* 2015b). Several species of bats, particularly the slower flying species, such as the long-eared bats and *Myotis* species, have on the other hand been shown to avoid lighting, possibly as a consequence of the risk of increased predation from diurnal raptors (Stone *et. al.* 2015a), although several species may be sensitive to increased lighting particularly UV light, and lighting may disrupt visual foraging behavior in groups such as long-eared bats (Fure 2006). Furthermore, the artificial attraction of insects to lighting may have an adverse impact on the availability of insects in nearby habitats and therefore an impact on the foraging success of bats that avoid lighting.
- 7.2.5** The area is already wet lit and there is unlikely to be a significant increase in light levels overall; however, without careful design, lighting could reduce the value of retained areas of scrub and trees likely to be used by bats and therefore wildlife sensitive lighting should be installed (refer to recommendations in **Section 8**).

Hazel Dormice

- 7.2.6** Dormice are highly unlikely to be present on site and therefore adverse impacts on dormice are highly unlikely also.

Amphibians

- 7.2.7** No waterbodies are to be affected by the proposals and therefore there will be loss of breeding opportunities for amphibians. It is considered unlikely that protected and notable amphibians i.e. great crested newt and common toad would make use of the terrestrial habitats on site. Widespread and common amphibians such as common frog may be found on site but habitats suitable are likely to be retained.

Reptiles

- 7.2.8** The car parking areas to be developed provide very poor habitat for reptiles and as such are reptiles are highly unlikely to be affected. The areas of tall ruderal vegetation, poor semi-improved grassland and areas of dense scrub around the site margins and bordering the ditch are expected to be retained; however, if the areas of short grassland are left uncut for an extended period, or works extended into areas of taller vegetation precautions should be adopted to ensure that reptiles are not harmed (refer to recommendations in **Section 8**).

Badgers (and Other Mammals)

- 7.2.9** There are no active or inactive badger sett entrances or other mammal entrances on site at the time of the survey and no signs of foraging badgers and as such adverse impacts on badgers are considered to be highly unlikely. Small mammals, including the notable species: hedgehog, may be found on site, particularly using the small areas of tall ruderal and scrub vegetation. These areas should be retained, but if some clearance of these areas is necessary, some precautions should be adopted during site clearance (refer to recommendations in **Section 8**).

Nesting birds

- 7.2.10** The scattered trees, scrub and tall ruderal vegetation provide nesting opportunities for common and widespread bird species and any removal of trees or clearance of taller areas of vegetation may lead to the disturbance of nesting birds and as such

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necessary precautions must be adopted to ensure the work goes ahead lawfully (refer to recommendations in Section 8).

Invertebrates

- 7.2.11** The site is highly unlikely to support important assemblages of invertebrates of conservation importance and therefore the proposals are not considered likely to significantly affect invertebrate populations. There would be scope to enhance the site for invertebrates through native planting (refer to recommendations in **Section 8**).

8 RECOMMENDATIONS

8.1 Site Clearance/Management

8.1.1 Tree and shrub removal should be avoided wherever feasible, but any essential removal of shrubs and trees, or work affecting areas of tall ruderal vegetation or taller grassland on site to allow for the construction or site set up should be undertaken taking precautions as follows:

- The work should be completed outside of the peak bird nesting season (March to August inclusive), or if carried out within this period, should take place only once a survey confirming nesting birds are not present has taken place. If birds are found to be nesting, to allow the work to take place lawfully, it should be undertaken only once it can be confirmed that the young have fledged and left the nest.
- The avoid impacts on small mammals and reptiles, any clearance of scrub, tall ruderal vegetation or poor, semi-improved grassland on site should be cleared using hand held tools only e.g. brush cutters down to a height of no less than 15cm initially before being left for at least 24 hours, with a subsequent cut down to 5cm before any further ground works or clearance takes place. The cutting should be carried out under an ecological watching brief.
- Once clearance has taken place and before ground works or construction begins, any areas of cleared vegetation should be kept closely cut to prevent it from becoming favourable habitat for reptiles or small mammals in the future.

8.1.2 Pollution prevention measures in accordance with Environment Agency good practice guidelines to ensure that site construction activities do not lead to silt and pollution entering the ditch should be incorporated into the scheme.

8.2 Invasive Non-Native Species

8.2.1 Japanese knotweed – a species listed as an invasive weed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) meaning it is an offence to cause it to spread – is present on site. Any ground works must take into account the

presence of Japanese knotweed and ensure actions that cause it to spread are avoided; appropriate and controlled removal of the species may be necessary.

- 8.2.2** Cotoneaster species – listed as invasive, non-native weeds under Schedule 9 of the Wildlife & Countryside Act also – were planted within the formal shrub beds in the car park and these should be removed and disposed of using appropriate control e.g. chipping or burning on site, or removal to a licensed landfill.

8.3 Habitats

- 8.3.1** Retained trees and shrubs should be protected during construction using appropriate tree protection measures.

8.4 Lighting

- 8.4.1** If external artificial lighting is to be installed as part of the scheme, the lighting period should be restricted or controlled by passive infra-red sensors so that lighting operates only when necessary, and the light fittings should be either low-level or be directed downwards and shielded above to prevent upward light spill that may illuminate trees and vegetation. The lighting should use the lowest intensity lights possible and should seek to use bulbs that emit very low levels of UV light e.g. warm white LED lamps (Stone 2015a).

8.5 Ecological Enhancement Opportunities

- 8.5.1** The development proposals would provide opportunities for the protection and enhancement of the site's biodiversity value. The inclusion of the following recommendations would be of ecological benefit and be in line with the National Planning Policy Framework (NPPF):
- The landscaping plans should seek to enhance the ecological value of the site by making use of native plant species of local provenance. The aim of the landscaping should be to increase the structural and species diversity of the site by planting native woody species to bolster existing wooded areas and expand existing areas of semi-improved.
 - The new leisure centre should include features suitable wildlife associated with buildings such as nesting birds and roosting bats by including purpose built boxes within the walls for example. If flat roofed areas are proposed,

biodiverse roofs could be installed to provide habitat suitable for a wide range of species such as invertebrates and nesting birds.

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APPENDIX 1 - SITE PHOTOGRAPHS



1. The site viewed from the northern edge showing the hard standing of the carpark and areas of formal amenity grassland/introduced shrubs.



2. The site's south western corner showing the car park and entrance road.



3. The car park and neighbouring strips of amenity grassland (AM1 & AM2) with scattered trees (SBW2).



4. The amenity grassland strip and scattered trees on the southern boundary (SBW1 & AM1).



5. The ditch (MRW1) crossing the site from west to east with neighbouring strips of dense scrub (DS1).



6. Tall ruderal vegetation and scattered trees in the site's south eastern corner (SBW3 & TR1).



7. Tall ruderal vegetation and scattered trees on the eastern site boundary (TR2).



8. A patch of Japanese knotweed in the dense scrub on the southern edge of the ditch (TN2)



9. A mature willow (TN3)



10. Car parking to the south of the play area with a group of scattered trees centrally.

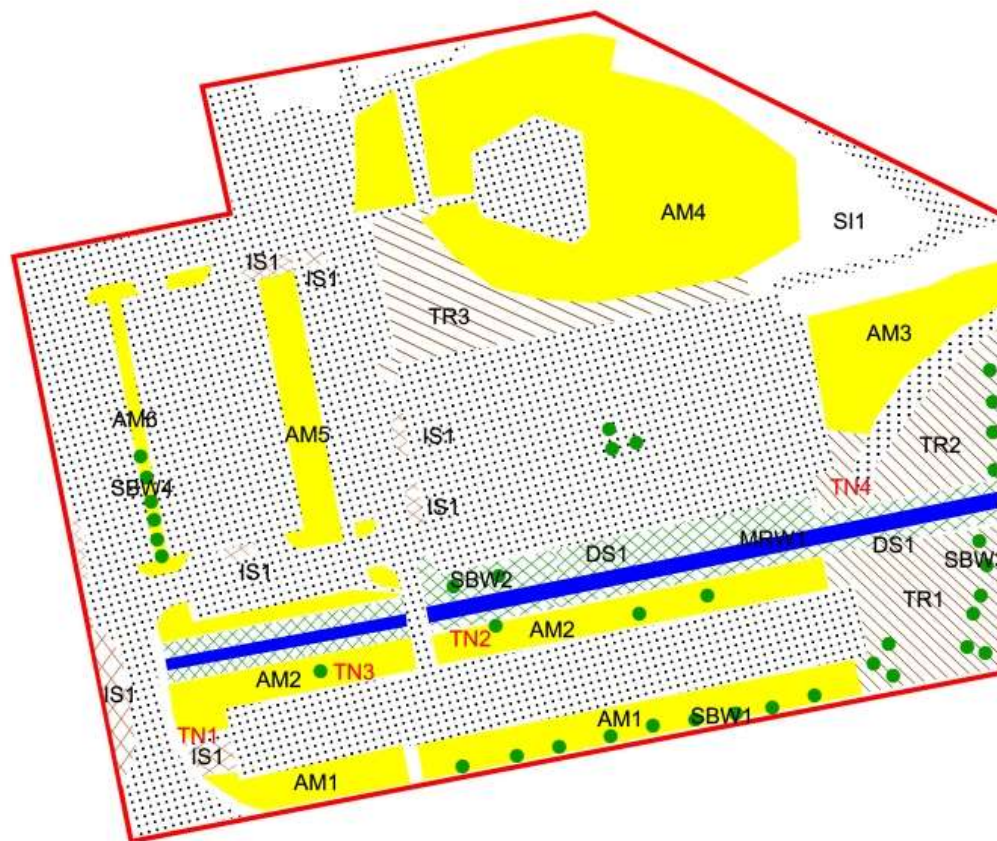


11. Areas of poor semi-improved grassland in the site's north eastern corner (SI1).



12. Banks with semi-improved grassland managed as a nature area in the site's north eastern corner (SI1).

APPENDIX 2 - PRELIMINARY ECOLOGICAL APPRAISAL PLAN AND TARGET NOTES



Drawn by:	Date	Scale:	Land at Rivermead Leisure Centre Reading	
JW	August 2019	Not to scale	Preliminary Ecological Survey	

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Habitat code	Comment
AM1-AM6	Amenity grassland - Closely cut grassland that supported a small number of grasses including perennial rye grass (<i>Lolium perenne</i>), a meadow grass species (<i>Poa</i> sp.), red fescue (<i>Festuca rubra</i>) and common bent (<i>Agrostis tenuis</i>). Herbaceous species were present regularly but infrequently within the sward and included: yarrow (<i>Achillea millefolium</i>), daisy (<i>Bellis perennis</i>), dove's foot cranesbill (<i>Geranium molle</i>), dandelion (<i>Taraxacum officinale</i> agg.), ribwort plantain (<i>Plantago lanceolata</i>), selfheal (<i>Prunella vulgaris</i>), creeping cinquefoil (<i>Potentilla reptans</i>), common field speedwell (<i>Veronica persica</i>) and field bindweed (<i>Convolvulus arvensis</i>).
SI1	Poor semi-improved grassland - Areas of informally managed grassland managed as a nature area. The grassland had a tall sward with grass species including: cocks foot (<i>Dactylis glomerata</i>), Yorkshire fog (<i>Holcus lanatus</i>), rough meadow grass (<i>Poa trivialis</i>), false oat grass (<i>Arrhenatherum elatius</i>) and barren brome (<i>Bromus sterilis</i>). Grasses dominated the sward but some predominantly ruderal and competitive herbaceous species were present including: yarrow (<i>Achillea millefolium</i>), broad leaved dock (<i>Rumex obtusifolium</i>), spear thistle (<i>Cirsium vulgare</i>), hedge bindweed (<i>Calystegia sepium</i>), hemlock (<i>Conium maculatum</i>), prickly lettuce (<i>Lactuca serriola</i>) and common mallow (<i>Malva sylvestris</i>).
TR1-2	Tall ruderal vegetation - supported a range of species including hemlock, creeping thistle (<i>Cirsium arvense</i>), broad leaved dock, knotgrass (<i>Polygonum aviculare</i>), bristly ox-tongue (<i>Picris echinoides</i>), scentless mayweed (<i>Tripleurospermum inodorum</i>), black medick (<i>Medicago lupulina</i>), annual beard grass (<i>Polypogon monspeliensis</i>), nettle (<i>Urtica dioica</i>) and lesser burdock (<i>Arctium minor</i>).
TR3	Tall ruderal vegetation with occasional trees - supported nettle, creeping thistle, bramble, ragwort (<i>Senecio jacobaea</i>), false oat grass (<i>Arrhenatherum elatius</i>), Yorkshire fog (<i>Holcus lanatus</i>), <i>Pyranantha</i> sp., elder, ash, <i>Cotoneaster</i> sp. and cherry (<i>Prunus</i> sp.).
DS1	Dense scrub - species included bramble (<i>Rubus fruticosus</i> agg.), hawthorn (<i>Crataegus monogyna</i>), sycamore (<i>Acer pseudoplatanus</i>), hemlock and elder (<i>Sambucus nigra</i>).
MRW1	Mesotrophic running water - Water filled ditch. The ditch was surrounded by dense scrub and had steep sided banks. Reedmace (<i>Typha latifolia</i>) was prominent within the ditch.
SBW1	Scattered broadleaved trees - A line of mature and semi-mature London plane (<i>Platanus x hispanica</i>) trees had been planted within the amenity grassland on the southern boundary. The trees lacked any visible features suitable for use by roosting bats or bird species that occupy cavities.
SBW2	Scattered broadleaved trees - Self-set and planted scattered trees were growing within the amenity grassland and dense scrub to the north and south of the ditch crossing the site and species included cherry (<i>Prunus</i> sp.) and sycamore (<i>Acer pseudoplatanus</i>).
SBW3	Scattered broadleaved trees - Self-set trees and shrubs were abundant within the tall ruderal vegetation in the south eastern corner of the site and included ash (<i>Fraxinus excelsior</i>), field maple (<i>Acer platanoides</i>), Aspen (<i>Populus tremula</i>) and hawthorn (<i>Crataegus monogyna</i>).
SBW4	Scattered broadleaved trees - A line of mature willow (<i>Salix</i> sp.) trees had been planted in a strip of amenity grass within the car park. The trees lacked any visible features suitable for roosting bats or cavity nesting birds.
IS1	Introduced shrubs - Small patches of formal shrub planting on the edges of the main car parking area and supported primarily non-native ornamental species such as <i>Pyranantha</i> sp., <i>Cotoneaster</i> sp., cherry laurel (<i>Prunus laurocerasus</i>), Portugal laurel (<i>Prunus lusitanica</i>) and <i>Viburnum</i> sp.
TN1	Pre-existing record of Japanese knotweed (<i>Fallopia japonica</i>).
TN2	A patch of Japanese knotweed (<i>Fallopia japonica</i>) was visible close to the ditch.
TN3	A mature crack willow (<i>Salix fragilis</i>); the tree lacked any visible features suitable for roosting bats or cavity nesting birds.
TN4	Pre-existing record of Japanese knotweed (<i>Fallopia japonica</i>).

APPENDIX 3 - PLANT SPECIES RECORDED DURING THE SURVEY

Plant common name	Scientific name
Annual beard grass	<i>Polypogon monspeliensis</i>
Ash	<i>Fraxinus excelsior</i>
Aspen	<i>Populus tremula</i>
Barren brome	<i>Bromus sterilis</i>
Black medick	<i>Medicago lupulina</i>
Bramble	<i>Rubus fruticosus</i> agg.
Broad leaved dock	<i>Rumex obtusifolius</i>
Cherry laurel	<i>Prunus laurocerasus</i>
Cleavers	<i>Galium aparine</i>
Cock's foot	<i>Dactylis glomerata</i>
Common bent	<i>Agrostis tenuis</i>
Common field speedwell	<i>Veronica persica</i>
Common mallow	<i>Malva sylvestris</i>
Common nettle	<i>Urtica dioica</i>
Cotoneaster	<i>Cotoneaster</i> sp.
Crack willow	<i>Salix fragilis</i>
Creeping bent	<i>Agrostis tenuis</i>
Creeping cinquefoil	<i>Potentilla reptans</i>
Creeping thistle	<i>Cirsium arvense</i>
Dandelion	<i>Taraxacum officinale</i> agg.
Dove's foot cranesbill	<i>Geranium molle</i>
Elder	<i>Sambucus nigra</i>
False oat grass	<i>Arrhenatherum elatius</i>
Field bindweed	<i>Convolvulus arvensis</i>
Field maple	<i>Acer campestre</i>
Firethorn	<i>Pyracantha</i> sp.
Hawthorn	<i>Crataegus monogyna</i>
Hedge bindweed	<i>Calystegia sepium</i>
Hemlock	<i>Conium maculatum</i>
Knotgrass	<i>Polygonum aviculare</i>
Japanese knotweed	<i>Fallopia japonica</i>
Lesser burdock	<i>Arctium minor</i>
London plane	<i>Platanus x hispanica</i>
Portugal laurel	<i>Prunus lusitanica</i>
Prickly lettuce	<i>Lactuca serriola</i>
Oak	<i>Quercus robur</i>
Red fescue	<i>Festuca rubra</i>
Reedmace	<i>Typha latifolia</i>
Rough meadow grass	<i>Poa trivialis</i>
Scentless mayweed	<i>Tripleurospermum inodorum</i>
Selfheal	<i>Prunella vulgaris</i>
Spear thistle	<i>Cirsium vulgare</i>
Sycamore	<i>Acer pseudoplatanus</i>
Yarrow	<i>Achillea millefolium</i>
Yorkshire fog	<i>Holcus lanatus</i>