



QA

Reading International Business Park – Preliminary Ecological Appraisal

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Prepared by:	Olivia Guindon	Olivia Guindon
Signature:		
Authorised by:	Mitch Cooke	Mitch Cooke
Signature:		
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1.0 EXECUTIVE SUMMARY

- 1.1 Greengage Environmental Ltd was commissioned by Tristan Capital Partners to undertake a Preliminary Ecological Appraisal (PEA) of a site known as the Reading International Business Park in Reading, Berkshire.
- 1.2 This document is a report of this survey and has been produced to support a planning submission for the site which seeks the refurbishment of the buildings on site to provide offices and co-working space, a range of amenities such as cafe, shower/locker, cycling facilities, and improvements to external hard and soft landscaping.
- 1.3 This survey aimed to establish the ecological value of this site and the presence/likely-absence of notable and/or legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.
- 1.4 The survey area extends to approximately 5.5 hectares (ha) and comprises several buildings including Reading International, the Dot, the Old Farmhouse and Busy Bees nursery. The buildings are all linked by areas of hardstanding used as roads and car parking spaces and are surrounded by areas of amenity grassland and introduced shrub. There is also an artificial lake, split over 2 levels on site.
- 1.5 The site survey, undertaken on the 28th August 2020, alongside data received from a desktop study, confirmed that the site has potential to support the following protected/notable species:
 - Moderate potential to support roosting bats;
 - Moderate potential to support foraging and commuting bats;
 - Low potential to support reptiles; and
 - High potential to support nesting birds.
- 1.6 Accordingly, in order to identify appropriate mitigation, compensation and enhancement actions, a further two bat emergence/re-entry surveys were undertaken to assess the presence/likely-absence of roosting bats in the Old Farmhouse building.
- 1.7 Given the low suitability of the rough grassland area for reptiles, no further surveys are required however if this area is to be managed, this should follow a precautionary staged clearance approach as detailed in the discussion section.
- 1.8 Furthermore, given the presence of the lake on the site and the proposed works on the adjacent Dot building, measures to address potential impacts upon aquatic habitats and species during construction and the lifetime of the development should be described within a Construction Environmental Management Plan (CEMP). This should include an assessment of the potential lighting impact, with a bat sensitive lighting strategy produced.

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- 1.9 The scattered trees and introduced shrubs on site have the potential to support breeding birds. Therefore, any planned removal of vegetation and trees should take place outside of the breeding bird season (March-August), or following confirmation of absence by a suitably qualified ecologist. Compensatory vegetation and nesting opportunities should be provided.
- 1.10 Further to these mitigation and compensation actions, it is recommended that the site's ecological value is enhanced through the incorporation of:
- Wildlife friendly landscaping;
 - Living roofs;
 - Invertebrate habitat features (e.g. bee bricks and log piles);
 - Living walls; and
 - Bird and bat boxes.
- 1.11 Assuming these recommendations are implemented effectively, then no adverse impacts on biodiversity within or adjoining the site are predicted, and the proposals have the potential to provide a net gain for biodiversity.
- 1.12 A Biodiversity Net Gain Assessment was undertaken by Greengage (Appendix 1) and demonstrates that the development proposals will result in a net gain of 1.77 biodiversity units should current existing plans be adhered to. This corresponds to a total net increase of 7.35% in ecological value.
- 1.13 All of the above key actions could be detailed within an Ecological Management Plan (EMP) for the site which could be secured through planning condition. Should these recommendations be adhered to, the proposals stand to be compliant with legislation and current planning policy.

2.0 INTRODUCTION

- 2.1 Greengage was commissioned by Tristan Capital Partners to undertake a Preliminary Ecological Appraisal (PEA) of a site known as the Reading International Business Park in Reading, Berkshire.
- 2.2 This document is a report of this survey and has been produced to support a planning submission for the site which seeks the refurbishment of the buildings on site to provide offices and co-working space, a range of amenities such as cafe, shower/locker, cycling facilities, and improvements to external hard and soft landscaping.
- 2.3 This survey aimed to establish the ecological value of this site and the presence/likely-absence of notable and/or legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

SITE DESCRIPTION

- 2.4 The survey area extends to approximately 5.5 ha and is centred on National Grid Reference SU713689, OS Co-ordinates (471372, 168980).
- 2.5 The site comprises four buildings: Building 1 (Reading International) is a crescent-shaped office building providing 376,587m² of office and storage accommodation configured in six blocks; Building 2 (The Dot) is a round building located on the edge of the lake and currently offering restaurant/café opportunities; Building 3 (the Old Farmhouse) is a Grade II listed building vacant at the time of the survey and historically used as an on-site security centre; and Building 4 called Busy Bees nursery is out of the current scope. The four buildings are joined by areas of hardstanding used as roads and car parking spaces and greenery on site includes areas of amenity grassland, introduced shrubs and scattered trees. There is also an artificial lake on site, split over 2 levels.
- 2.6 The site is located just off junction 11 of the M4, south of Reading town centre. The wider landscape to the north is dominated by commercial and residential developments associated with Reading and below the M4 to the south are expanses of agricultural land. Notable greenspaces in the area include several Berkshire Local Wildlife Sites and Kennet Valley East which comprise large areas of gravel pits ~2km west of the site. Habitats within this area include chalk river, reedbeds, fen, wet woodland, lowland meadow, wet grassland and standing water and support notable species.

Figure 2.1 Site boundary



3.0 METHODOLOGY

3.1 The PEA (which included an Extended Ecological Phase 1 Survey) was undertaken in accordance with guidance in the Joint Nature Conservation Committee (JNCC) (2010) Handbook for Phase 1 Habitat Survey¹ and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal², in accordance with BS42020:2013: Biodiversity³. The overall assessment consisted of:

- A desktop assessment and review of available biological records; and
- A site walkover, protected species scoping assessment and phase 1 habitat survey.

3.2 The survey boundary and existing site is shown at Figure 1.

3.3 Greengage undertook the site walkover on the 28th August 2020 during dry and sunny weather conditions. Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded, and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

DESK TOP REVIEW

3.4 A review of readily available ecological information and other relevant environmental databases (included Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website⁴) was undertaken for the site and its vicinity. In addition, local authority websites and a biological records search from the Thames Valley Environmental Records Centre (TVERC) were reviewed to identify the location and citations of local non-statutory designated sites and presence of records for notable and protected species. This provided the overall ecological context for the site, to better inform the Phase 1 Survey.

ON SITE SURVEYS

Flora

3.5 The extent and distribution of different habitats on site were identified and mapped according to the standard Phase 1 Survey methodologies, supplemented with target notes describing the dominant botanical species and any features of interest. Any present protected plant species and invasive/non-natives were also noted. A habitat map has been produced to illustrate the results, as shown at Figure 1.

Fauna

- 3.6 The Phase 1 Survey specifically included assessments to identify the potential value for notable, rare and protected species at site. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas in the context of species known to be present locally and regionally.
- 3.7 The likelihood of occurrence is ranked as follows:
- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
 - Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from desk top study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
 - Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
 - High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and
 - Present - Presence confirmed for the survey itself or recent, confirmed records from information gathered through desk top study.
- 3.8 The species surveyed for included:

Badger (Meles meles)

- 3.9 The potential for badger to inhabit or forage within the study area was assessed. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines and paw prints.

Bat Species (Chiroptera)

- 3.10 The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on site that aimed to identify characteristics suitable for bat roosts, foraging and commuting. In accordance with Bat Conservation Trust's *Good Practice Guidelines*⁵ and methods given in English Nature's (now Natural England) *Bat Mitigation Guidelines*⁶ consideration was given to:
- The availability of access to roosts for bats;
 - The presence and suitability of crevices and other places as roosts; and

- Signs of bat activity or presence.
- 3.11 Definite signs of bat activity were taken to be:
- The bats themselves;
 - Droppings;
 - Grease marks;
 - Scratch marks; and
 - Urine spatter.
- 3.12 Signs of possible bat presence were taken to be:
- Stains; and
 - Moth and butterfly wings.
- 3.13 Features with potential as roost sites include mature trees with holes, crevices or splits (the most utilised trees being oak, ash, beech, willow and Scots pine), caves, bridges, tunnels and buildings with cracks or gaps serving as possible access points to voids or crevices.
- 3.14 Additionally, linear natural features such as tree lines, hedgerows and river corridors are often considered valuable for commuting and semi-natural habitats such as woodland, meadows and waterbodies can provide important foraging resources. Consideration was given to the presence of these features both immediately within and adjacent to the assessment area.

Great Crested Newt (*Triturus cristatus*)

- 3.15 An assessment was carried out to identify any potential habitats that may support great crested newt (GCN) and other native amphibians. The aquatic and terrestrial habitats required generally include small, still ponds or water bodies suitable for breeding; and woodland or grassland areas where there is optimal invertebrate prey potential.

Reptiles

- 3.16 The potential for reptile species on site was assessed during the walkover survey. Possible species include grass snake (*Natrix natrix*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizard (*Lacerta vivipara* and *L. agilis*) and slow worm (*Anguis fragilis*). These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or,

in the case of grass snake, waterbody margins. Suitable well drained and frost-free areas are needed so they can survive the winter.

Dormouse (*Muscardinus avellanarius*)

- 3.17 During the walkover survey the potential for dormouse to be present on site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as honeysuckle and hazel, in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

Water Vole (*Arvicola terrestris*)

- 3.18 Water vole potential was assessed during the walkover survey. The potential is identified by the presence of ditches, rivers, dykes and lakes with holes and runs along the banks. Latrines, footprints or piles of food can also be noted.

Otter (*Lutra lutra*)

- 3.19 Where desktop review or consultation indicates the presence of otter in a river catchment, the presence of water bodies with good cover and potential holt (den) sites would be noted. Spraint, footprints or food remains can also be noted.

Birds

- 3.20 During the walkover survey, the potential for breeding, wintering and migratory birds was assessed. In particular, this includes areas of trees, scrub, heathland and wetlands that could support nests for common or notable species.

Invertebrates

- 3.21 As part of the walkover survey the quality of invertebrate habitat and the potential for notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats suitable for invertebrates including wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

Biodiversity Action Plan priority species/ Species of Principal Importance

- 3.22 Where consultation and desk-study indicates the presence of BAP priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the site to support these species.

SURVEYORS

- 3.23 Mitch Cooke, who undertook the site survey and reviewed this report, has a degree in Ecology (Hons), an MSc in Environmental Assessment and Management, and is a Full member of CIEEM with over 35 years' experience in ecological survey and assessment. Mitch has set up and developed ecological and environmental teams for nearly 20 years and has undertaken and managed numerous ecological surveys and assessments. He is the Director at Greengage and manages the team.
- 3.24 Olivia Guindon, who wrote this report, has a Bachelor's degree in Ecology and Wildlife Conservation (BSc Hons), a Master's degree in Species Identification and Survey Skills and is a Qualifying member of CIEEM. Olivia has over two years' experience in the commercial sector.
- 3.25 This report was written by Olivia Guindon and reviewed and verified by Mitch Cooke who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:
- Represents sound industry practice;
 - Reports and recommends correctly, truthfully and objectively;
 - Is appropriate given the local site conditions and scope of works proposed; and
 - Avoids invalid, biased and exaggerated statements.

CONSTRAINTS

- 3.26 The PEA was undertaken during an optimal time of year during ideal conditions by a suitably qualified ecologist. It was possible to access all areas of the site.
- 3.27 No significant constraints that stand to impact conclusions drawn in this report therefore presented themselves.

4.0 RESULTS

DESK TOP REVIEW

Designations

- 4.1 Consultations with the local biological record centres (Thames Valley Environmental Records Centre TVERC) and the MAGIC dataset have confirmed that there are no statutory designations of national or international importance within the boundary of the site or a 2km radius.
- 4.2 Records from TVERC also identified five non-statutory Local Wildlife Sites (LWS) within 2km of the site boundary. LWS are recognised by Local Planning Authorities (LPA) as important wildlife sites.
- 4.3 Table 4.1 below gives the locations and descriptions of a selection of the nearest/most relevant local designations.

Table 4.1 Statutory and Non-Statutory Designated Sites within Search Radius

Site Name	Approximate Location	Description
Non-Statutory		
Great Lea Pond (Berkshire LWS)	~500m south	Great Lea Pond consists of a mosaic of silted pools and bare mud, now heavily shaded by willow scrub, which is grading into secondary woodland. Most of the pools have no emergent vegetation due to dense shading. However patches of pond sedge, lesser spearwort, water mint, brooklime and water forget-me-not are present. The main interest of the site is the population of water-violet, which is located throughout the pools and particularly in the most open area, towards the north. Previous records have noted bladderwort, however this was not found on the 2005 survey. The dense scrub/secondary woodland has a canopy of willow with some oak and ash and an understorey of elder, hawthorn and blackthorn. The field layer is rank with nettle, cleavers, ground ivy, herb Robert, bramble and some male fern. There is quite a lot of dead wood in the form of fallen branches, which has been colonised by bryophyte species. On the 1883 map it appears that this area was marsh habitat. The site is bordered by a road, track, garden and arable land and is situated south of Reading. Mousetail has been recorded at the site in 1988 and 1965.
Shinfield Park, Nore's Hill (Berkshire LWS)	~1.4km east	A mixture of woodland including areas of semi-natural ancient woodland. These areas have a canopy of ash and oak with hazel coppice below. Dormouse has been recorded at this site in 1987. Woodland species present include yellow pimpernel, three-nerved sandwort, yellow archangel and bluebell.

Site Name	Approximate Location	Description
The Grove (Berkshire LWS)	~1.6km east	A small mosaic of rank grassland, scrub, secondary woodland, broadleaved plantation and two ponds completely enclosed by roads towards the north of Shinfield. The majority of the site consists of a mosaic of scrub and a tall grassland sward which is dominated by forbs. The sward is predominately black knapweed, wild carrot, upright hedge parsley, stone parsley and ragwort with areas of meadow vetchling, agrimony, common vetch and ribwort plantain. The grassland appears damp in areas with the presence of greater bird's-foot-trefoil and sneezewort. The grassland sward has affinities to the MG1 <i>Arrhenatheretum elatioris</i> grassland, <i>Centaurea nigra</i> sub community. Scrub is encroaching throughout the sward, where it ranges from scattered hawthorn, to dense areas of bramble with young sapling oak, hawthorn and ash. Towards the north lies an area of scrubby, relatively disturbed secondary woodland. The canopy is predominately ash and oak (relatively young) over a mix of hawthorn, field maple, hazel and elder. It appears that some planting has been carried out. The ground is relatively uneven which suggests some work has been carried out in conjunction with the recent road building. The field layer is made up of patches of locally abundant ivy, nettle, ground ivy and patches of garlic mustard, dog's mercury and chickweed. Mixed tree planting has occurred with species such as ash, pine, hawthorn and the occasional dogwood, whitebeam and wayfaring tree. Against the gateway lies an area of gravel which has been colonised by an ephemeral, open sward made up of species such as common figwort, scarlet pimpernel, bristly oxtongue, nettle, shepherds purse and field forget-me-not. Overall the site forms a mosaic of habitats which is confined to a small pocket to the south of Reading and north of the M4.
Clare's Green Road Grasslands (Berkshire LWS)	~1.7km south	This site is managed by Wokingham Borough Council. The site is composed of four semi-improved mesotrophic grassland fields previously managed as paddocks for horse grazing. Almost all the grassland falls into the National Vegetation Classification (NVC) community-type MG6. Most of this is MG6b <i>Agrostis-Holcus-Anthoxanthum</i> grassland, poorer stands fall into MG6a. The richest grassland, where forb cover can be high, is present in the south-west of the site which includes extremely small patches of relict unimproved grassland (including <i>Stachys officinalis</i>, <i>Pimpinella saxifraga</i> and two large anthills). Across the site very small patches of NVC community <i>Arrhenatherum elatius</i> MG1a are developing with larger field margin stands of NVC community <i>Urtica-Cirsium</i> OV25. One very small stand of wet NVC community MG10 grassland is also present. It is planned to restore grassland habitat at this site. The fields are surrounded and bisected by hedgerows. These vary from juvenile <i>Rubus undescrubs</i>, through Hawthorn, Blackthorn and Elm scrubs, to one well-established Oak-Ash hedgerow oriented about an old boundary bank supporting field layer <i>Hyacinthoides non-scripta</i>.

Site Name	Approximate Location	Description
The Cowsey (Berkshire LWS)	~1.9km north	This west-facing hillside stretches over 17.8 ha and is largely covered by mature scrub and broadleaved woodland which surrounds grassy enclaves. There are natural springs, one supporting a ribbon of wetland plants in a shallow valley, one feeding a small pond and another drains an area of mature woodland. Some grassland areas are locally damp and support patches of rushes. There are fragments of richer grassland by the northwestern boundary with bird's-foot trefoil, agrimony, lesser stitchwort, common knapweed, meadow vetchling, creeping cinquefoil, common sorrel and hard rush. More sandy, acidic grassland occurs in an area rich with large anthills. The geology is plateau gravel; the soils appear to be mixed, sandy in places on the top of the hill but with more clay further down. The height of the site ranges from 60 to over 75 metres.
Burghfield Gravel Pits (Berkshire LWS)	~2km west	An extensive area of gravel pits with well-developed wooded areas, islands and marginal vegetation. This area attracts a good variety of wildfowl and other birds including Wildlife and Countryside Act Schedule 1 species as well as uncommon passage migrants.

Biodiversity Action Plans

- 4.4 UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.
- 4.5 The UK BAP was succeeded in 2012 by the *UK-Post 2012 Biodiversity Framework* which informed the creation of the *Biodiversity 2020* strategy; England's contribution towards the UK's commitments under the *United Nations Convention of Biological Diversity*.
- 4.6 Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).
- 4.7 The following UK BAP priority habitats were present at site or in the immediate vicinity:
- Standing open water
- 4.8 Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

Reading draft Biodiversity Action Plan 2020

- 4.9 Features within the Reading BAP of relevance to this report include:

- Urban environments Habitat Action Plan (HAP);
- Ponds (Standing Open Water) and Reedbeds HAP;
- House sparrow Species Action Plan (SAP);
- Stag beetle SAP; and
- Bats SAP.

Species Record

4.10 The information provided in the biological data search from TVERC identified records of a number of protected and BAP priority species within 2km search radius of the site. Among others, these include the following species of relevance to the site:

- Amphibians and reptiles including common toad (*Bufo bufo*), common frog (*Rana temporaria*), great crested newt (*Triturus cristatus*), palmate newt (*Lissotriton helveticus*), and smooth newt (*Lissotriton vulgaris*), grass snake (*Natrix helvetica*), slow worm (*Anguis fragilis*);
- Birds including avocet (*Recurvirostra avosetta*), barn owl (*Tyto alba*), Bewick's swan (*Cygnus columbianus*), black-tailed godwit (*Limosa limosa*), black throated diver (*Gavia arctica*), brambling (*Fringilla montifringilla*), cetti's warbler (*Cettia cetti*), common crossbill (*Loxia curvirostra*), fieldfare (*Turdus pilaris*), Goldeneye (*Bucephala clangula*), green sandpiper (*Tringa ochropus*), greenshank (*Tringa nebularia*), hen harrier (*Circus cyaneus*), hobby (*Falco subbuteo*), hoopoe (*Upupa epops*), kingfisher (*Alcedo atthis*), little gull (*Hydrocoloeus minutus*), little ringed plover (*Charadrius dubius*), Mediterranean gull (*Larus melanocephalus*), osprey (*Pandion haliaetus*), peregrine (*Falco peregrinus*), pintail (*Anas acuta*), quail (*Coturnix coturnix*), red kite (*Milvus milvus*), redwing (*Turdus iliacus*), Ruff (*Calidris pugnax*), swift (*Apus apus*), house sparrow (*Passer domesticus*);
- Mammals other than bats including eurasian badger (*Meles meles*), european water vole (*Arvicola amphibius*), hazel dormouse (*Muscardinus avellanarius*), West European hedgehog (*Erinaceus europaeus*);
- Bats including noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), daubenton's (*Myotis daubentonii*), Nathusius' pipistrelle (*Pipistrellus nathusii*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared (*Plecotus auritus*);
- Invertebrates including stag beetle (*Lucanus cervus*), chalk hill blue (*Polyommatus coridon*), white letter hairstreak (*Satyrrium w-album*).

4.11 The species listed above are primarily those known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in the following chapter.

Detailed Description of Site: Habitats

4.12 The habitats presented across the assessment site consist of the following Joint Nature Conservation Committee (JNCC) Phase 1 Habitat categories, as mapped at Figure 1:

Building (J3.6)/Hardstanding (J3.6.1)

4.13 The site comprises four buildings:

- Building 1 (Reading International) is a crescent-shaped office building providing 376,587m of office and storage accommodation configured in six blocks. The building is of brick construction with glass panelling and a flat roof;
- Building 2 (The Dot) is a round building located on the lake and currently offering restaurant/café opportunities. It is made of corrugated metal sheets, glass panelling and has a corrugated metal flat roof;
- Building 3 (the Old Farmhouse) is a Grade II listed building dating from the 15th Century. The structure consists of a large timber frame with white plaster in between. The roof is pitched and of a complex structure with multiple chimney stacks. The building was vacant at the time of survey and historically used as an on-site security centre.
- Building 4 (Busy Bees Nursery) – although within the red line boundary it is not included within the scope.

4.14 The four buildings are joined by areas of hardstanding used as roads, car parking spaces and pedestrian paving in front of building 1.

Figure 4.1 Glass panelling on building 1



Figure 4.2 The dot (building 2)



Figure 4.3 Old farmhouse building (building 3)



Amenity grassland

- 4.15 The majority of the greenery on site is covered by amenity grassland with a short sward height (<5cm) dominated by grasses such as perennial rye grass (*Lolium perenne*) and flowering species including daisy (*Bellis perennis*), dandelion (*Taraxum agg.*), creeping buttercup (*Ranunculus repens*) and white clover (*Trifolium repens*). These areas are mainly surrounding the old farmhouse building to the north west of the site and surrounding the lake to the east of the site. These are clearly regularly managed.

Figure 4.4 Patch of short sward amenity grassland on site



- 4.16 A less regularly managed area of amenity grassland is present to the south west of the site which had a taller sward height (>10cm) and a slightly better species diversity.

Figure 4.5 Patch of rough grassland



Introduced shrubs (J1.4)

- 4.17 Area surrounding the car parking spaces and the roundabout are landscaped by introduced shrubs containing shrub species such as *Euphorbia sp.*, *Hebe sp.*, grasses such as tufted hairgrass (*Deschampsia cespitosa*) and herbaceous plants such as *Verbena bonariensis*, *Geranium sp.*, and English lavender (*Lavandula angustifolia*).

Figure 4.6 Introduced shrubs



Standing Water

- 4.18 One large artificial lake of approximately 0.3 hectares is located to the north east of the site. Its water appears highly turbid and it was not possible to assess depth. Aquatic vegetation was present within it including water lily (*Nymphaeaceae sp.*), *Iris sp.*, common reed (*Phragmites australis*), bulrush (*Typha latifolia*) as well as vegetation surrounding it including purple loosestrife (*Lythrum salicaria*).

Figure 4.7 Lake with Reading International (building 1 to the left) and the dot (building 2 to the right) in the background



Scattered trees

- 4.19 A number of scattered trees were present throughout the site. These were mostly semi-mature, ornamental specimens with species including rowan (*Sorbus subg. Sorbus*), sycamore (*Acer pseudoplatanus*), cherry (*Prunus sp.*), beech (*Fagus sylvatica*) and areas surrounding the lake contained species such as willow (*Salix sp.*) and silver birch (*Betula pendula*).

Figure 4.8 Scattered trees



Broadleaved woodland

- 4.20 The site is bound to the north by a small linear patch of broadleaved woodland. This woodland extends along the southern side of the M4 for approximately 500m. Species here consist of Oak (*Quercus robur*), Crack willow (*Salix fragilis*) and Ash (*Fraxinus excelsior*).
- 4.21 Most trees have heavy ivy growth, with dense ivy growth and bramble scrub dominating much of the woodland floor.

Detailed description of Site: Species

Bats

Foraging

- 4.22 The majority of the site is likely to be of limited value for foraging and commuting bats comprising predominantly hardstanding and building with existing light disturbance. However, there are likely opportunities for foraging over the lake and shrubs and trees bordering it, which support invertebrate prey.
- 4.23 The line of trees and woodland area on and surrounding the site provide good commuting and foraging habitat for bats and are relatively well connected to the agricultural land and woodland patches that make up the wider countryside to the south.

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- 4.24 However, the habitats on site are relatively recently formed and better foraging and commuting habitat exists in the local area. As such the site is considered to have **moderate** potential to support foraging and commuting bats.

Roosting

- 4.25 No field signs of bats were observed during the external and internal inspection.
- 4.26 Building 1 and 2 did not possess any features such as cracks, crevices, missing bricks and other structural features suitable for bats. These buildings are therefore considered to have **negligible** potential to support roosting bats.
- 4.27 Potential roosting features were however observed on building 3. The following features with the potential to support roosting bats were identified during the external survey of the building:
- Broken and missing roof tiles;
 - Gaps in brickwork;
 - Missing mortar;
 - Gap between brickwork and wooden beam leaving to the internal loft space;

Figure 4.9 Example of potential bat roosting features on building 3 – gap between brickwork and wooden beam (above) and gap beneath roof tile (below)



- 4.28 The internal inspection of the old farmhouse building revealed no evidence of roosting bats however access points were identified between the wooden beams providing access into the roof void.

Figure 4.10 Old farmhouse roof void



- 4.29 There are a number of roosting features on the Old farmhouse building which provide good potential for roosting bats, however the habitats immediately surrounding the building are very urban and moderately well connected to suitable habitat within the surrounding landscape. The building is therefore considered to have **moderate** potential to support roosting bats.

Great Crested Newt

- 4.30 There are records of great crested newt within 2km of the site and the standing water habitat on site is suitable to support this species.
- 4.31 However, there is no suitable terrestrial habitat on site and the lake is completely isolated from other suitable aquatic habitats.
- 4.32 Accordingly, the site is considered to have **negligible** potential to support great crested newts.

Reptiles

- 4.33 There are records of reptiles within 2km of the site including slow worm, grass snake and common lizard.
- 4.34 The area of rougher amenity grassland to the west of the site provides suitable habitat for common and widespread reptiles species such as slow worm. However, this patch of habitat is limited in size and has grown up relatively recently since lack of grounds management. The site's connectivity to other habitats of suitability for reptiles is provided mostly through the woodland to the south west. Woodland habitats are not however considered optimal for reptiles as they tend to be too shady and provide little opportunity for basking.
- 4.35 With this in mind, the site is therefore considered to have **low** potential to support reptiles.

Birds

- 4.36 There are records of priority species /species of principal importance in the surrounding 2km area including barn owl and house sparrow however no birds were spotted on site during the survey.
- 4.37 The trees, shrubbery and marginal aquatic vegetation on site are considered suitable to support common nesting birds and the site is therefore considered to have **high** potential to support nesting birds.

Invertebrates

- 4.38 The site possesses only common plant species and habitats which provide limited value for notable invertebrates. The introduced shrub habitat does not possess suitable volumes of deadwood to support stag beetle or other notable saproxylic species and nectar sources for pollinators are limited.
- 4.39 The site is accordingly considered to have **negligible** potential to support notable invertebrates.

Other BAP/Protected Species

- 4.40 No other UK or Reading BAP priority species were recorded during the PEA.
- 4.41 The potential for all other protected species including badger and dormouse was considered negligible given the urban nature of the site and the habitats present.

5.0 EVALUATION AND DISCUSSION

BASELINE SUMMARY

- 5.1 The assessment site and its surroundings have potential to support the following ecological receptors of note, which could therefore be impacted upon by any future prospective development proposals, as indicated in Table 5.1 below.

Table 5.1 Baseline Summary

Receptor	Presence/Potential Presence	Comments
Designated Sites: Statutory	None present within 2km	No impacts predicted.
Designated Sites: Non-Statutory	Several present within 2kmq	Impacts associated with the development are considered unlikely due to distance and the presence of substantial urban development between the sites.
Notable habitats	Lake present on site	In the absence of mitigation, impacts from the construction stage upon the lake are expected through disturbance associated with construction works such as noise, vibration and light disturbance, dust deposition and potential pollutant spillage. Proposals should accordingly embed measures which address potential impact upon the lake. These measures could be described within a Construction Environmental management Plan (CEMP). Specifically, impacts through pollutant spillage, light spill, and increased dust deposition should be managed during construction. Measures may include, but not be limited to, enacting dust control measures, having spillage kits in place for pollutants and provision of a sensitive lighting scheme. Assuming that appropriate best practice environmental construction measures are followed then proposals could stand to fully mitigate any predicted impacts upon the lake.
Foraging bats	Moderate	Proposals could impact habitats potentially used by foraging and commuting bats through vegetation clearance and changes to the lighting regime. Accordingly, a sensitive lighting which follows best practice industry guidance should be followed. The lighting strategy should follow best practice guidance provided by the Institute of Lighting Professionals (ILP) and Bat Conservation Trust (BCT)⁷.

Receptor	Presence/Potential Presence	Comments
		Any vegetation lost to the development which may be used as a foraging resource should be replaced within the landscaping scheme.
Roosting bats	Moderate	Several roosting features are present on the Old Farmhouse building with potential to support roosting bats. In accordance with BCT guidelines and best practice, and given the legal protection afforded to bats, two further emergence/re-entry surveys were undertaken to determine the presence/likely absence of roosting bats within the building on site. Mitigation and enhancement recommendations following completion of these surveys are detailed in Greengage's bat survey report (ref: 551533ogOct20FV01_BATS).
Reptiles	Low	The area of rough grassland fringing the woodland edge has low potential to support common and widespread reptile species. Further surveys to establish the presence/likely absence of reptiles on site are not required given the limited size and relative immaturity of habitats concerned however mitigation measures to ensure reptiles are not harmed during the works should be followed. If the grassland is to be managed, this is to be done through a precautionary staged clearance by cutting 30cm in the first instance, with cutting removed, followed by clearance to ground level the following day. In the unlikely event that reptiles are encountered, works must stop immediately, and an ecologist should be contacted
Birds	High	Nesting opportunities are present within the trees and shrubbery on site. Impacts upon nesting birds can be fully avoided through seasonal clearance of vegetation outside of the active nesting period (March to August inclusive), or following confirmation of absence by a suitably qualified ecologist. Should an active nest be identified, works that would stand to impact the nests must cease until the nest is vacated. Compensatory nesting opportunities should be provided for any lost.

ENHANCEMENT

- 5.2 Opportunities to enhance the ecological value of the site through the development proposals in relation to relevant ecological receptors are noted in the table above.

5.3 Habitat should be created to provide value for priority species in line with conservation objectives.

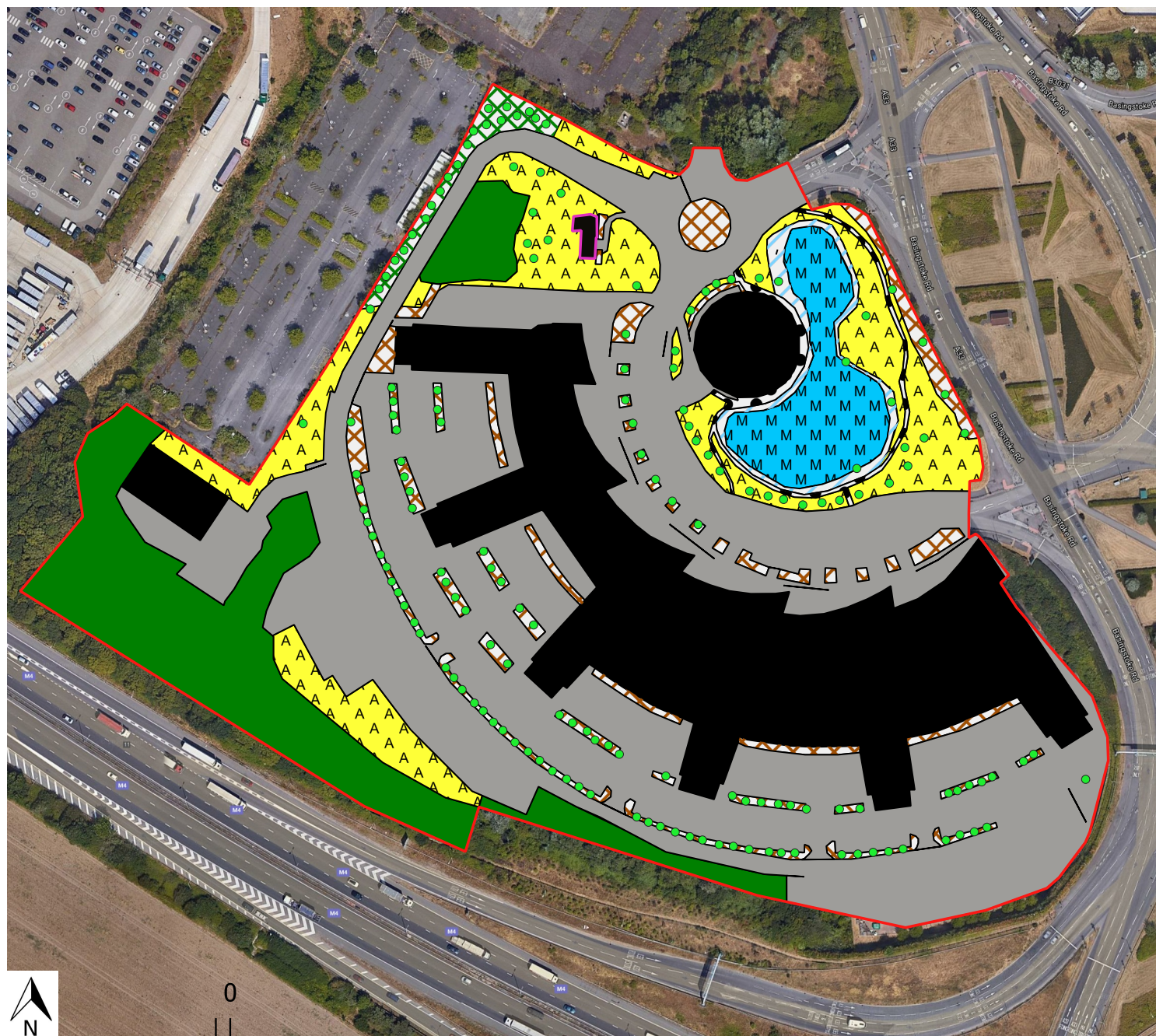
5.4 Specifically, the following enhancement features are recommended for consideration:

- Biodiverse living roofs – Areas of biodiverse roof, comprising substrate-based systems which are seeded and plug planted with at least 30 wildflower species of known value to wildlife, should be provided on suitable flat roof areas. The roofs should be further enhanced through the inclusion of features such as log piles, rope coils, sandy piles and ephemeral water features for invertebrates;
- Green walls – Climber and trellis system vertical greening should be provided on suitable elevations of the buildings;
- Wildlife friendly planting – new landscaping should provide a diverse mix of species of demonstratable value for wildlife known to be at site/have the potential to be encouraged to the site. Landscaping should account for climate risk through providing appropriate species mixes which are drought resilient, or suitable for use in rain gardens or for surface water control where appropriate. Street trees should be considerate of their wildlife value and wider function such as pest resilience and air quality control ability;
- Bird boxes – Nesting opportunities for birds, particularly targeting Reading BAP species such as house sparrow, should be provided. Specialised house sparrow terraces can be included that are externally attached to the buildings. These boxes should be positioned near to any area of vegetation and should be placed at least 2m above ground level. We recommend using 'woodstone' products that utilise a mix of concrete and FSC wood fibres, creating a strong, long-lasting and sustainable product. Swift boxes should also be installed along with a swift call system to encourage uptake⁸⁹;
- Bat boxes – Bat boxes should be located on the eastern and southern elevations of the buildings and/or trees. We recommend using 'woodstone' products that utilise a mix of concrete and FSC wood fibres, creating a strong, long-lasting and sustainable product¹⁰;
- Invertebrate habitat features – Invertebrate habitat features should be incorporated within public landscaped areas to provide features of interest as well as ecological function. Stag beetle loggeries, solitary beehives and habitat panels should be placed in suitable locations. Stag beetle loggeries should be placed in shady areas amongst trees to provide forage and shelter for saproxylic invertebrates in larval stage, whereas beehives and habitat panels should be located in sunny areas.

6.0 SUMMARY & CONCLUSION

- 6.1 Greengage was commissioned by Tristan Capital Partners to undertake a PEA a site known as the Reading International Business Park in Reading, Berkshire in order to establish the ecological value of this site and its potential to support notable and/or legally protected species.
- 6.2 Data received from the desktop study and the PEA site walkover have confirmed that the site:
- Has high potential to support nesting birds;
 - Has moderate potential to support roosting bats;
 - Has low potential to support reptiles; and
 - Has moderate potential to support foraging and commuting bats.
- 6.3 Two further bat emergence/re-entry surveys were undertaken to confirm the presence/likely absence of roosting bats within the old farmhouse building. Results are detailed in the bat survey report written by Greengage (report ref: 551533ogOct20FV01_BATS).
- 6.4 No further reptile surveys are required however a precautionary method of works is proposed should the rough grassland area be managed.
- 6.5 It was also identified that the site contains one BAP Priority Habitat – standing water. Suitable measures should accordingly be embedded within the proposed construction approach to mitigate potential impacts upon these habitats.
- 6.6 Given the value for nesting birds in the introduced shrub and scattered trees on the site it is recommended that any clearance of suitable vegetation on site should be undertaken outside of nesting bird season (March-August Inclusive).
- 6.7 Key mitigation, compensation and enhancement actions are described to enable legislative and policy compliance (see context at Appendix 2), aiming to achieve net gains in biodiversity for the site.
- 6.8 Key actions should be included within EMP and CEMP documents for the site which could be secured through planning condition.

FIGURE 1 SITE PLAN AND HABITAT MAP



READING INTERNATIONAL BUSINESS PARK

Building with moderate potential for roosting bats

Scattered trees

Site boundary

Habitats

A1.1.1 - Broadleaved woodland - semi-natural

A2.1 - Scrub - dense/continuous

F2.1 - Marginal and inundation - marginal vegetation

G1.2 - Standing water - mesotrophic

J1.2 - Cultivated/disturbed land - amenity grassland

J1.4 - Introduced shrub

J3.6 - Buildings

J4 - Bare ground

J3.6.1 - Hardstanding

Greengage

Greengage Environmental Ltd
9 Holyrood Street, London SE1
2EL

**Fig 1.0 Site Plan and
Habitat Map**

Project Number 551533
October 2020

APPENDIX 1 BIODIVERSITY NET GAIN ASSESSMENT

APPENDIX 1 – BIODIVERSITY NET GAIN ASSESSMENT

Introduction

Greengage Environmental Limited was commissioned by EPISO 5 Austen 1 Sarl to undertake a Biodiversity Net Gain (BNG) Assessment for the proposed development at the Reading International Business Park in Reading, Berkshire.

Proposals seek the refurbishment of the buildings on site to provide office and co-working space, a range of amenities such as café, shower/locker, cycling facilities, and improvements to external hard and soft landscaping.

The National Planning Policy Framework (NPPF)¹ states that *'all plans should identify and pursue opportunities for securing measurable net gains for biodiversity'*.

Policy EN12 of the Reading Borough Local Plan states: *"On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible"*.

This assessment therefore aims to quantify the predicted change in biodiversity value of the site in light of the proposed development to assess compliance against local and national planning policy.

Methodology

To calculate the biodiversity value of the site pre- and post-development, the DEFRA Metric 2.0 was utilised, following best practice guidance from DEFRA²³ and joint guidance from CIEEM, IEMA and CIRIA⁴.

This metric uses Biodiversity Units as a proxy for the ecological value of area or linear based habitats. The areas of each habitat parcel are measured, with each parcel assigned a 'Distinctiveness' and 'Condition' score. Distinctiveness is a default score for that habitat classification, representing its inherent ecological value, whereas condition refers to the state each parcel is in relative to predetermined set of criteria outlined in the supplementary Defra Metric 2.0 guidance.

For post-development habitat areas, additional multipliers are applied taking into account the time taken to reach maturity and difficulty of creation of the habitats, and whether the habitat creation is in a strategically beneficial location.

An assessment of the predicted change in ecological value is undertaken comparing the Biodiversity Units and assessing percentage change. Changes in broader habitat types (for example, 'Urban', 'Woodland' and 'Grassland' habitats) are also tracked, and trading habitats is discouraged unless specifically targeted within a local strategy. Trading down of habitats is not permitted.

¹ Ministry of Housing, Communities & Local Government (2019); National Planning Policy Framework – Publications. URL: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf, Last accessed: 20/03/2019

² Ian Crosher, Susannah Gold, Max Heaven D, Matt Heydon, Lauren Moore, Stephen Panks, Sarah Scott, Dave Stone & Nick White (2019); The Biodiversity Metric 2.0: auditing and accounting for biodiversity value. User guide (Beta Version, July 2019). Natural England

³ Ian Crosher, Susannah Gold, Max Heaven D, Matt Heydon, Lauren Moore, Stephen Panks, Sarah Scott, Dave Stone & Nick White (2019); The Biodiversity Metric 2.0: auditing and accounting for biodiversity value. Technical Supplement (Beta Version, July 2019). Natural England

⁴ Julia Baker, Rachel Hoskin & Tom Butterworth (2019); Biodiversity Net Gain. Good practice principles for development: A practical guide. CIRIA, London



To calculate pre-development Biodiversity Units, data collected during a Preliminary Ecological Appraisal (PEA) undertaken by Greengage on the 28th August 2020 was assessed. Areas of each habitat type were taken from the Phase 1 Habitat Map (Figure 1) and data relating to the condition of habitat parcels was collected in the field.

Limitations

The assessment methodology does not incorporate ecological features beyond area and linear based habitats. The potential for the site to support protected species, for example, is not captured by this assessment. As such this report should be read in conjunction with all other ecological reports for the site. The mitigation hierarchy in relation to protected and notable habitats and species must be followed. This report should accordingly be read in conjunction with the PEA and any other appropriate protected species surveys.

The BNG assessment at this stage is predictive in nature. To ensure delivery of BNG, requirements outlined within this report must be adhered to, and a rigorous programme of monitoring and maintenance must be implemented.

Results

The baseline biodiversity value of the site is calculated to be **24.07** biodiversity units. A breakdown of this calculation is given in Table 1.1 below:

Table 1.1 Pre-development area-based habitats

Habitat Description	Area (hectares)	Distinctiveness	Condition	Biodiversity Units
Woodland and forest – Lowland mixed deciduous woodland	0.9461	High	Moderate	14.36
Heathland and scrub – Mixed scrub	0.0815	Medium	Poor	0.41
Wetland - Reedbeds	0.0799	High	Fairly good	1.38
Lakes – Ponds (Priority Habitat)	0.2943	High	Moderate	4.06
Urban – Introduced shrub	0.4061	Low	Moderate	2.05
Urban - Developed land; sealed surface	5.2598	Very low	N/A	0
Urban – Amenity Grassland	0.8436	Low	Poor	1.69
Urban - Bareground	0.0579	Low	Poor	0.12
Total:	7.97			24.07

Based on landscape drawings, the proposed development is predicted to provide **25.85** biodiversity units.



Table 1.2 Post-development area-based habitats

Habitat Description	Area (Hectares)	Distinctiveness	Condition	Time to target condition / years	Difficulty	Biodiversity Units
Urban: Allotments	0.0075	Medium	Moderate	1 year	Low	0.07
Urban: Ground level planters	0.148647	Low	Moderate	1 year	Low	0.73
Urban: raingardens	0.092255	Low	Moderate	1 year	Low	0.45
Grassland – Lowland meadows	0.263171	Very high	Moderate	10 years	High	1.23
Woodland and forest – Lowland mixed deciduous woodland	0.9461	High	Moderate	N/A	N/A	14.36
Mixed scrub	0.0815	Medium	Poor	N/A	N/A	0.41
Wetland - reedbeds	0.0799	High	Fairly good	N/A	N/A	1.38
Lakes – Ponds (Priority Habitat)	0.2943	High	Moderate	N/A	N/A	4.06
Urban – Introduced shrub	0.369539	Low	Moderate	N/A	N/A	1.87
Urban – Developed land; sealed surface	5.047959	Very low	N/A	N/A	N/A	0
Urban – Amenity Grassland	0.580429	Low	Poor	N/A	N/A	1.16
Urban - Bareground	0.0579	Low	Poor	N/A	N/A	0.12
Total:	7.97					25.84

Under these proposals, and in the absence of additional enhancement measures and habitat creation, the development stands to result in a **net gain of 1.77** biodiversity units associated with area-based habitats from pre-development levels. This corresponds to a total **net increase of 7.35%** in ecological value.



Discussion and Recommendations

The proposals are therefore in compliance with local and national planning policy which seek developments to provide a net gain in biodiversity.

There is scope, however, to provide additional ecological enhancements to improve the predicted eventual biodiversity value of the site and comply with the emerging BNG Mandate which seeks a 10% uplift in biodiversity units. The site could be further enhanced through the provision of:

- Extensive biodiverse roofs on all suitable flat roof areas: Roofs should be substrate based and seeded and plug planted with species of value; and
- Green walls - Climbers and trellis system vertical greening should be provided on all suitable elevations of the buildings.

Details on habitat enhancement and management to ensure delivery of BNG should be outlined in an Ecological Management Plan (EMP) and detailed landscaping plans, which could be secured through planning condition.

The EMP should provide description of how habitats are to be created and managed for a period of at least 30 years.

Conclusion

This report demonstrates that the development proposals will result in a **net gain of 1.77** in biodiversity units should existing plans be adhered to, equivalent to a 7.35% increase in biodiversity ecological value and is in compliance with local policy and national policy.

APPENDIX 2 RELEVANT LEGISLATION AND POLICY

LEGISLATION

Current key legislation relating to ecology includes the Wildlife and Countryside Act 1981 (as amended)⁸; The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations')⁹, The Countryside and Rights of Way Act 2000 (CRoW Act)¹⁰, and The Natural Environment and Rural Communities Act, 2006¹¹.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)¹², and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')¹³, and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')¹⁴ into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 43 and 47 respectively of the Conservation of Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 63 (1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which —

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of that site;

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats¹⁵ (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (*Erinaceus europaeus*), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan¹⁶ (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework¹⁷ (and Biodiversity 2020 strategy¹⁸ in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020¹⁹ and EU Biodiversity Strategy (EUBS)²⁰, this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of *Species of Principal Importance for Nature Conservation*.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

Legislation Relating to Nesting Birds

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as

amended) and the CRoW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

Legislation Relating to Bats

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annex IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2017, which transposes the Habitats Directive into UK law. Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

This legislation applies to all bat life stages.

The implications of the above in relation to the proposals are that where it is necessary during construction to remove trees, buildings or structures in which bats roost, it must first be determined that work is compulsory and if so, appropriate licenses must be obtained from Natural England.

Legislation Relating to Natura 2000 Sites and Habitats Directive Annex I/II Species

European Commission Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive'), and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive') form the cornerstones of nature conservation legislation across EU member states. Priority species requiring protection across Europe are listed in the Annexes of these Directives. Regulation 63(1) of the Conservation of Habitats and Species Regulations 2017 and Offshore Marine Conservation Regulations, 2007 (as amended) transpose these directives into UK law and set the basis for the designations of protected sites (known as Natura 2000 sites; Special Areas of Conservation under the Habitat Directive and Special Areas of Protection under the Birds Directive) that are of importance for habitats, species or assemblages listed on the directive Annexes. In the UK Ramsar sites are also offered the same level of protection as SPAs and SACs however the qualifying species for the designation may differ; Ramsar sites being designated specifically as important wetland habitats.

Under article 6(3) of the Habitats Directive, where projects stand to have likely significant effect (in accordance with the European Court of Justice ruling of C-127/02 Waddenzee cockle fishing) upon the integrity of conservation objectives (i.e. conservation status of the qualifying species or habitats) within the designated sites then the Competent Authority must undertake an Appropriate Assessment.

PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2019²¹ sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: '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'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Local

Reading Borough Local Plan, adopted November 2019

Policy EN12: Biodiversity and The Green Network

- (a) The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced.

Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. The Green Network comprises:

- Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and Biodiversity Action Plan habitats, and the River Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and
- Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.

New development shall demonstrate how the location and type of green space, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. Such features should be designed to maximise the opportunities for enhancing this network. All new development should maximise opportunities to create new assets and links into areas where opportunities are as yet unidentified on the Proposals Map.

- (b) On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible.

Development should:

- Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and
- Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable.

In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be: 1) avoided; 2) mitigated or; 3) compensated for on-site; then new development will provide off-site compensation to ensure that there is “no net loss” of biodiversity. Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.

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