

Land Off Kirton's Farm Road, Reading

Preliminary Ecological Appraisal and Biodiversity Net Gain Assessment (2026)

30280066-AUK-XX-ZZ-TR-KK-0052-P002

August 2026

Contents

1	Introduction.....	1
1.1	Background.....	1
1.2	Proposed Development	1
1.3	Site Location and Setting.....	1
1.4	Scope of Work	2
1.5	Previous Ecological Background	2
1.6	Reliability of Information / Limitations	3
1.7	Reliance	3
2	Methodology	4
2.2	Desk Study.....	4
2.3	Habitat Survey	4
2.4	Biodiversity Net Gain Assessment	5
2.5	Unit Calculation.....	5
2.6	Habitat Size.....	5
2.7	Habitat Condition Assessments.....	5
2.8	Area Based Habitats	6
2.9	Strategic Significance Assessment	6
2.10	Baseline Calculations	6
2.11	'Pseudo' Double Counting of Areas.....	6
2.12	Areas Excluded from the Assessment.....	7
2.13	Survey and Report Limitations.....	7
3	Results	8
3.2	Designated Sites	8
3.3	On-site Baseline Habitats	10
3.4	Protected Fauna and/or Species of Conservation Concern	12
4	Discussion.....	16
4.1	Ecological Features	16
4.2	Further Surveys	17
4.3	Recommended Mitigation	17
5	Biodiversity Net Gain	20
5.2	On-site Baseline Habitats	20
5.3	Post works delivery of biodiversity units	20
5.4	Summary of BNG Results.....	21
6	Conclusions	22
7	References	23

Tables

Table 2-1 Strategic Significance and Multipliers	6
Table 3-1 Local Wildlife Sites within 2km radius of the Site	8
Table 3-2 Summary of Habitats of Principal Importance within 2km radius of the Site	9
Table 5-1 On-site Baseline	20
Table 7-1 Non-statutory Designated Nature Conservation Sites within a 2km Radius of the Site.....	26
Table 7-2 Records of Protected and Notable/Priority Species Within 2km of the Site.....	26

Appendices

Appendix A

Study Limitations

Appendix B

Local Record Centre Data

Appendix C

Site Location and Boundary

Appendix D

Statutory and Non-statutory Sites

Appendix E

Habitats of Principal Importance

Appendix F

UK Habitat Map

Appendix G

Photographs

Appendix H

Relevant Ecological Legislation

Appendix I

Habitat Condition Assessments

1 Introduction

1.1 Background

- 1.1.1 Arcadis Consulting (UK) Limited (“Arcadis”) has been commissioned by M&G Real Estate (M&G) acting on behalf of Prudential Assurance Company Ltd (“the Client”) to prepare a Preliminary Ecological Appraisal (PEA) and Biodiversity Net Gain (BNG) assessment in support of a Town and Country Planning Act (TCPA) for the removal of soils and subsequent restoration of a site for future agricultural use (the Proposed Development), for a parcel of land off Kirton’s Farm Road, near Reading, Berkshire (the Site).
- 1.1.2 The Site is currently vacant with scrub and vegetation growth present. A quantity of natural soils (the “previously imported soils”) generated as a result of forming a development platform for an adjacent historical development in the area were previously located to part of the Site under agreement with Englefield Estate Trust Corporation Limited (the ‘Freeholders’) and have been present at the Site for over 20 years.
- 1.1.3 Prior to location of the previously imported soils on the Site, the surface soils in the east of the Site were placed in the west of the Site (the “indigenous materials”).

1.2 Proposed Development

- 1.2.1 The Proposed Development involves the removal of the previously imported soils (approximately 18,000 m³) currently stored on part of the Site, including required enabling works, followed by the restoration and reprofiling of the land to its original level (using only indigenous material, placed elsewhere on the site only) and condition for future agricultural use, as originally intended.

1.3 Site Location and Setting

- 1.3.1 The Site is located to the west of Reading (centred approximately at Grid Reference 469754 (Easting), 169714 (Northing)) in Berkshire. The Site is bordered by a railway to the west beyond a strip of scrubland and a complex of lakes to the west and south, and residential/commercial development to the north and east, beyond Kirton’s Farm Road/Kybes Lane (a minor road). The M4 motorway runs west-east approximately 170m to the south of the Site.
- 1.3.2 The Site is surrounded predominantly by neutral grassland and scrub. Access to the Site is located at the east side of the Site via Kirton’s Farm Road/Kybes Lane. The site boundary for assessment is presented in Figure 1.

1.4 Scope of Work

- 1.4.1 This report has been prepared to identify potential ecological constraints associated with the Proposed Development, inform the planning process and outline appropriate mitigation and enhancement measures. This report is a PEA, produced in line with guidance by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017^a), no further ecological surveys are considered necessary to inform a baseline assessment for the Site. This report is considered suitable for planning purposes. This report also includes a BNG assessment of the Site both pre and post works.
- 1.4.2 In addition to outlining potential ecological constraints, this report will support a planning application associated with the Proposed Development.
- 1.4.3 The scope of this assessment includes the following:
- A desk study to identify protected species and statutory designated sites;
 - An extended UK Habitat Classification (UKHab) of the Site to map habitats present, assess their potential to support protected and/or priority species and to identify the presence of any Invasive Non-native Species (INNS). The survey also included a habitat condition assessment to inform BNG calculations;
 - Identification of potential methods to avoid, reduce and compensate negative ecological impacts and their effects and provide ecological enhancement measures;
 - A full BNG assessment of the Site; and
 - Associated habitat mapping.

1.5 Previous Ecological Background

- 1.5.1 In December 2024, Arcadis undertook an extended Phase 1 habitat survey to inform an ecological assessment of the Site in relation to the Proposed Development. During the survey, a small stand of Japanese knotweed (*Fallopia japonica*) was identified within the Site and further specialist advice was provided by Japanese Knotweed Solutions (2025), to inform appropriate management prior to any vegetation clearance or soil disturbance works. The stand was subsequently isolated with fencing and appropriate signage.
- 1.5.2 The Site was found to comprise a mosaic of habitats including scattered trees, scattered scrub, dense scrub, a mosaic of scrub, tall ruderal vegetation, poor semi-improved grassland, and running water (ditch). Limitations for that habitat survey included the survey month (December) and recent vegetation clearance across most of the Site. The survey identified the potential for a range of ecological receptors including terrestrial invertebrates (common), amphibians, common reptiles, breeding birds, foraging and commuting bats with potential for roosting, and commuting and foraging habitat for badger (*Meles meles*).
- 1.5.3 The assessment also identified precautionary measures to avoid impacts to protected and notable species. These measures included undertaking vegetation clearance outside of the bird nesting season (March to August inclusive), or under the supervision of an Ecological Clerk of Works (ECow) following appropriate checks. Control of artificial lighting to minimise disturbance to bats and birds, and measures to prevent harm to mammals including badger such as covering excavations overnight.

- 1.5.4 The results of ecological studies undertaken by Ramboll (Ramboll, 2022 and 2023) have also been reviewed.

1.6 Reliability of Information / Limitations

- 1.6.1 This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report and previous work. Reference should be made to the Study Limitations presented in Appendix A.
- 1.6.2 Arcadis' liability, pursuant to the terms of the appointment of Arcadis by the Client, is strictly limited to the work undertaken and the matters contained and specifically referred to in this report.

1.7 Reliance

- 1.7.1 It is understood that the current report will be prepared for the use of the Client. The contents of this report may not be used or relied upon by any person other than this party without the express written consent and authorisation of Arcadis.

2 Methodology

- 2.1.1 The PEA comprised a review of, and update to, existing desk-based studies (Arcadis, 2025 and Ramboll, 2022 and 2023) and an UK Habitat (UKHab) survey of the Site to identify potential ecological constraints to the proposed soil removal scheme at the Site.

2.2 Desk Study

- 2.2.1 A desk study was undertaken in June 2026 to identify existing biological information relating to the Site and its surroundings. The following sources of information were used to complete this:

- The Multi-Agency Geographical Information for the Countryside (MAGIC) (Natural England, 2018) website was used to conduct a search for statutory designated sites of nature conservation value. The search was extended for SACs designated for bats within a 10km radius of the Site;
- Using the MAGIC website, a search was conducted for parcels of ancient woodland and Habitat of Principal Importance in England (HPIE) within a 500m radius of the Site, granted European Protected Species (EPS) licences within a 2km radius of the Site, and waterbodies within a 250m radius of the Site; and
- The Thames Valley Environmental Record Centre (TVERC) was used to conduct a search for protected and notable species and locally designated non-statutory sites (Local Wildlife Sites) within a 2km radius of the Site using data collected from within the last 10 years only.

- 2.2.2 The following ecological reports were also reviewed:

- Green Park Ecological Constraints Report (Ramboll, 2022);
- Green Park Ecological Constraints Report (Ramboll, 2023); and
- Land At Kirtons Farm Road, Reading - Preliminary Ecological Appraisal Report 2025 (Arcadis, 2025).

2.3 Habitat Survey

- 2.3.1 The survey area is shown on Figure 1 (Appendix C), and immediately adjacent to the Site (access permitting). A UKHab survey was completed on 29 May 2026 by Arcadis Senior Ecologist Warren Packer BSc (Hon) MSc MCIEEM.

- 2.3.2 The survey was undertaken following the Chartered Institute of Ecology and Environmental Management (CIEEM, 2017) guidelines with data captured onto a Global Positioning System (GPS) enabled device. The corresponding UKHab V2.0 (UKHab Ltd, 2023) classification for each habitat parcel was noted, along with the condition of the habitats present within the Site using the statutory biodiversity metric guidelines (HM Government, 2026^A).

- 2.3.3 UKHab has five hierarchical levels and includes the identification of priority habitats (HPIE listed under the Natural Environment and Rural Communities Act 2006 (HM Government, 2006) and Annex 1 habitats as listed under the European Habitats Directive. These five levels comprise:

- Level 1 – Biomes/major ecosystems (terrestrial, freshwater, and coastal);
- Level 2 – Ecosystem types (i.e. woodland, grassland, heathland, and scrub);
- Level 3 – Broad habitats, based on those of the UK Biodiversity Action Plan (UKBAP);
- Level 4 – Habitats, including 47 priority habitats; and

- Level 5 – Habitats, including Annex 1 habitats.

2.3.4 Target Notes (TNs) were used to identify features which were either too small to map or of particular ecological interest. Incidental records of fauna were also noted during the survey and habitats evaluated for their potential to support protected or notable species or other species of conservation concern including badger and roosting bats. Each habitat was labelled with a unique alphanumeric code which is given on Figure 4 in Appendix F.

2.4 Biodiversity Net Gain Assessment

2.4.1 The BNG calculations in this report were undertaken using the statutory metric calculator issued by the UK Government (HM Government, 2026^A) with data entered using the UKHab typologies (UKHab Ltd, 2023). The metric assesses area-based habitats (i.e. woodland, grassland etc) and linear features (i.e. hedgerows and rivers) separately, but through broadly the same methodology (note there are no linear habitats on the Site). The following sections are of relevance to these habitat types.

2.5 Unit Calculation

2.5.1 To calculate the biodiversity units, the unit for each of the habitat types is calculated and then multiplied by the size of the habitat. The unit number is based on habitat distinctiveness, condition, and strategic significance. For non-linear habitats, such as woodland or grassland, the area of the habitats is used to assess its size in hectares (ha).

2.5.2 This section describes how the proxy unit for biodiversity has been applied to the existing 'before development' habitats.

2.6 Habitat Size

2.6.1 The size of the habitats was calculated using a Geographical Information System (GIS) platform based on the baseline habitat data collected during the survey. The area occupied up by scattered trees within the Site was calculated by inputting the number of scattered trees identified during the survey into the 'Urban Tree Helper Tool', included within the metric spreadsheet. Post-intervention habitat size would be calculated considering the feasibility of interventions and the most appropriate option for biodiversity unit enhancement.

2.7 Habitat Condition Assessments

2.7.1 The condition of the habitat is defined as 'the biological 'working order' of a habitat type judged against the perceived ecological optimum for that each habitat (HM Government, 2026^B). This provides a measure of variation in the quality of areas of the same habitat type.

2.8 Area Based Habitats

- 2.8.1 A habitat condition assessment sheet is provided for each habitat type which is used to assign each habitat parcel to each of the categories detailed in Table 5-1 below. Each condition sheet is composed of a list of pass/fail criteria. The ratios of 'passes' to 'fails' is used to determine the habitat condition.

2.9 Strategic Significance Assessment

- 2.9.1 Strategic significance assesses the value of habitats from the point of view of environmental objectives and preferred location for biodiversity. Local and national policy (see Appendix H) was reviewed to quantify the strategic significance of each habitat area. Strategic significance categories and multipliers are shown in Table 2-1 below based on Table 7 within the user guide (HM Government, 2025^B).

Table 2-1 Strategic Significance and Multipliers

Category	Description	Multiplier
High	This category can be applied when: The location of the habitat parcel has been mapped in the local Habitat Map as an area where a potential measure has been proposed to help deliver the priorities of the Local Nature Recovery Strategy (LNRS); and The intervention is consistent with the potential measures proposed for that location.	1.15
Medium	This category cannot be applied.	1.10
Low	Applied where the definitions for high strategic significant are not met.	1

2.10 Baseline Calculations

- 2.10.1 The number of biodiversity units provided by each habitat currently within the Site is calculated by multiplying the values for distinctiveness, condition, strategic location, and the size of each habitat (in ha). This value represents the baseline condition of the Site, in terms of biodiversity units (BU). Further details can be found in the metric user guide (HM Government, 2025^B).

2.11 'Pseudo' Double Counting of Areas

- 2.11.1 The total area input into the spreadsheet can be greater than the total area of the Site. This is due to the three-dimensional nature of certain habitats. For example, the area covered by a tree is approximately the area covered by its canopy, but if an area of grassland is underneath, both would be included within the metric. As such, the area of the tree canopy is 'counted' twice which can result in the area in the metric being larger than the area of the Site.

2.12 Areas Excluded from the Assessment

- 2.12.1 The metric is not designed to assess the impacts to habitats within statutory designated sites or 'irreplaceable' habitats, as defined in Baker et al (2016). There are no irreplaceable habitats, such as ancient woodland, or statutory designated sites within the Site boundary, therefore all habitats were assessed.

2.13 Survey and Report Limitations

- 2.13.1 This report has been compiled from several sources, which Arcadis believes to be trustworthy. However, Arcadis, is unable to guarantee the accuracy of information provided by others. The report is based on existing information at the time of writing. Consequently, there is a potential for further information to become available, which may change the report's conclusion and for which Arcadis cannot be responsible.
- 2.13.2 It should be noted that whilst every effort has been made to provide a comprehensive description of the Site, no investigation can ensure the complete the characterisation of the natural environment. The UKHab survey does not constitute a full botanical survey therefore plant species may have been under recorded, unidentified, or not visible due to the time of year the survey was conducted. However, given the nature of the Site and the timing of the survey this is considered unlikely.
- 2.13.3 The protected species assessment provides a preliminary assessment of the likelihood of protected species occurring within the Site. This is based on the suitability of the habitat, known local distribution of the species (provided by the data searches and historic survey information) and any direct evidence within the Site. It is only representative of the time the survey was conducted. Desk study data is unlikely to be exhaustive and is not up to date in many cases. It is therefore possible protected species not identified during the data search do in fact occur within the vicinity of the Site.
- 2.13.4 Areas of dense scrub located primarily on the eastern aspect of the Site, were too dense to enable access to complete a thorough assessment of this area for protected/notable and/or invasive species. The recommendations provided should ensure that this limitation is overcome.

3 Results

3.1.1 The results of the desk study and field survey are described below, with sites or features of nature conservation interest detailed as appropriate:

- Local record centre data within 2km of the Site is included in full within Appendix B.
- A plan showing the Site location and boundary is in Appendix C.
- A plan showing the locations of Statutory and Non-statutory designated sites with 2km is in Appendix D.
- A plan showing the locations of Habitats of Principal Importance within 2km of the Site is in Appendix E.
- A UK Habitat plan showing the locations of the habitats on the Site is in Appendix F.
- Photographs of the Site taken during the field survey are presented in Appendix G
- The relevant ecological legislation is summarised in Appendix H.
- The Habitat Condition Assessment sheets are presented in Appendix I.

3.2 Designated Sites

Statutory Designated Sites

3.2.1 There were no Special Areas of Conservation (SACs), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSIs) or Ramsar sites within 2km of the Site. There were no statutory designated sites within 10km of the Site specifically designated for bats.

Non-Statutory Designated Sites

3.2.2 There were eight non-statutory Local Wildlife Sites (LWS) located within 2km of the Site, listed in Table 3-1 below, with locations shown on the plan in Appendix D.

Table 3-1 Local Wildlife Sites within 2km radius of the Site

Name	Type	Location	Area (Ha)/Length (km)	Reason for Designation
Burghfield Gravel Pits	Local Wildlife Site	50m west	177.7	Gravel pits supporting a range of wildfowl and other birds, including Schedule 1 species and passage migrants.
Pinge Wood	Local Wildlife Site	920m southwest	5.7	Supports ancient and semi-natural woodland.
Fobney Island	Local Wildlife Site	1.4km north	11.2	Supports a mosaic of wetland habitats and 13 species from the Berkshire Rare Plants register.
River Kennet/Kennet and Avon Canal	Local Wildlife Site	1.5km north	-	Part of Kennet Valley East which supports a range of habitats including chalk river, reedbeds, fen, wet woodland, lowland meadow, wet grassland and standing water in the form of gravel pits.

Name	Type	Location	Area (Ha)/Length (km)	Reason for Designation
Fobney and Kennet Valley Meadows	Local Wildlife Site	1.3km northwest	-	Part of Kennet Valley East which supports a range of habitats including chalk river, reedbeds, fen, wet woodland, lowland meadow, wet grassland and standing water in the form of gravel pits.
Fobney and Kennet Valley Meadows Proposed Extension	Berkshire Proposed Local Wildlife Site Extension	1.5km northwest	-	Part of Kennet Valley East which supports a range of habitats including chalk river, reedbeds, fen, wet woodland, lowland meadow, wet grassland and standing water in the form of gravel pits.
Holy Brook	Local Wildlife Site	1.7km north	4.5	Supports chalk river habitat and associated species.
Great Lea Pond	Local Wildlife Site	1.4 km southeast	1.52	Supports wetland habitat and a population of water-violet (<i>Hottonia palustris</i>).

Biodiversity Opportunity Areas

3.2.3 No Biodiversity Opportunity Areas (Berkshire Nature Recovery, 2025) were located within the Site boundary.

Habitats of Principal Importance

3.2.4 There were 12 Habitats of Principal Importance listed under Section 41 of the Natural Environment and Rural Communities Act 2006 found within 2km of the Site. The total area and distance to the nearest of these is presented in Table 3-2 Summary of Habitats of Principal Importance within 2km radius of the Site. The locations of these habitats are shown on the plan in Appendix E.

Table 3-2 Summary of Habitats of Principal Importance within 2km radius of the Site

Habitat type	Total area within 2km of the Site (ha)	Distance to nearest parcel (km) and direction from the Site
Coastal and floodplain grazing marsh	116.1	0.1 north
Eutrophic standing waters	131.6	0.1 west
Lowland fens	21.2	1.4 northwest
Lowland meadows	<0.1	2.0 northeast
Lowland mixed deciduous woodland	53.6	0.2 southwest
Open mosaic habitats on previously developed land	23.6	0.6 north
Ponds	7.9	0.5 northeast
Reedbeds	0.6	2.0 north
Rivers	4.3	1.3 north
Traditional orchards	0.3	0.9 southeast
Wet woodland	5.6	1.5 north

Habitat type	Total area within 2km of the Site (ha)	Distance to nearest parcel (km) and direction from the Site
Wood-pasture and parkland	9.5	1.2 south

3.3 On-site Baseline Habitats

Other Broadleaved Woodland

- 3.3.1 There was an area (approximately 0.1ha) of unmanaged other broadleaved woodland located in the northeast of the Site. The woodland contained trees in a range of age and height classes with an established scrub/shrub layer. The woodland has a maximum canopy height of 14m).
- 3.3.2 The canopy comprised Ash (*Fraxinus excelsior*), Hazel (*Corylus avellana*), Alder (*Alnus glutinosa*) and Field Maple (*Acer campestre*). The shrub layer comprised Rose species (*Rosa* sp.), Hawthorn (*Crataegus monogyna*) Bramble (*Rubus fruticosus* agg.) and Blackthorn (*Prunus spinosa*) with Common Nettle (*Urtica dioica*) and Common Ivy (*Hedera helix*) in the field layer.
- 3.3.3 This habitat corresponds to the UKHab typology of 'Other Broadleaved Woodland' and in moderate condition based on several factors including age distribution of trees, absence of invasive species, presence of native species and lack of browsing damage. (For location see WD1 on the UK Habitat Map in Appendix F and Photograph 1 in Appendix G)

Mixed Scrub

- 3.3.4 There was an area (approximately 0.2ha) of mixed scrub on the eastern border of the Site. The scrub was dense in places and supported a range of native scrub and young trees species including abundant Bramble along with Ash, Hazel, Grey Willow (*Salix cinerea*), Rose species, Dog-rose (*Rosa canina*), and Hawthorn.
- 3.3.5 This habitat type corresponds to the UKHab typology of mixed scrub which was in a moderate condition based on several factors including overall structure and composition, well developed edges and the absence of Invasive Non-Native Species (INNS). (For location see MS1 on the UK Habitat Map in Appendix F and Photograph 2 in Appendix G)

Other Neutral Grassland

- 3.3.6 An area of other neutral grassland (approximately 1.5ha) constitutes the primary habitat within the Site. The grassland had not recently been cut or grazed by livestock with a sward height of 0.5m interspersed with areas of bare ground and scattered Bramble scrub. This area is subjected to annual cutting to near ground level.

- 3.3.7 The grassland supported Yellow Oat-grass (*Trisetum flavescens*), Rough Meadow-grass (*Poa trivialis*), Curled Dock (*Rumex crispus*), Creeping Thistle (*Cirsium arvense*), White Campion (*Silene latifolia*), Cock's-foot (*Dactylus glomerata*), Cleavers (*Galium aparine*), Scentless Mayweed (*Tripleurospermum inodorum*), Meadow Vetchling (*Lathyrus pratensis*), Lesser Burdock (*Arctium minus*), Hard Rush (*Juncus inflexus*), Creeping Buttercup (*Ranunculus repens*), Tufted Vetch (*Vicia cracca*), Common Vetch (*Vicia sativa*) and Black Medick (*Medicago lupulina*). Barren Brome (*Anisantha sterilis*) was recorded frequently within the sward.
- 3.3.8 This habitat type corresponds to the UKHab typology of 'other neutral grassland' and was in a moderate condition based on several factors including variability of sward height, cover of bare ground, absence of INNS and number of species per m². (For location see G1 on the UK Habitat Map in Appendix F and Photographs 3 and 4 in Appendix G)

Sparsely Vegetated Land – Ruderal/Ephemeral

- 3.3.9 An area of sparsely vegetated land (approximately 0.1 ha) comprising low lying ephemeral forbs was recorded in the east of the Site. The habitat appeared unmanaged with some scattered scrub with a sward height of around 100mm. Plants recorded included occasional Creeping Cinquefoil (*Potentilla reptans*), Bristly Oxtongue (*Helminthotheca echioides*), Bramble, Common Nettle, Rose species, Creeping Thistle, Crane's-bill (*Geranium* Sp.) species, Lesser Burdock (*Arctium minus*), Hard Rush (*Juncus inflexus*), Cut-leaved Crane's-bill (*Geranium dissectum*) and Hawkbit (*Leontodon* Sp.).
- 3.3.10 This habitat corresponds to the UKHab typology of 'sparsely vegetated ground – ruderal/ephemeral'. The habitat was considered in a good condition based on several criteria including vegetation structure, presence of plant species beneficial for a range of wildlife and the absence of INNS. (For location see ESP1 on the UK Habitat Map in Appendix F)

Sparsely Vegetated Land – Tall Forbs

- 3.3.11 There were two areas (approximately 0.5ha combined) containing a similar species diversity and abundance of tall forbs vegetation within the grassland. These parcels had a sward height of approximately 1m and contained abundant Hemlock (*Conium maculatum*) and Creeping Thistle along with Common Nettle. Other species recorded within these parcels comprised Lesser Burdock, Broad-leaved Dock (*Rumex obtusifolius*), Soft Brome (*Bromus hordeaceus*), Cleavers, Bristly Oxtongue and Bramble.
- 3.3.12 This habitat corresponds to the UKHab typology of 'sparsely vegetated land – tall forbs' classification. Both parcels were in a good condition based on several criteria including variability of vegetation structure, species diversity and absence of non-native species. (For locations see TR1 and TR2 on the UK Habitat Map in Appendix F and Photograph 6 in Appendix G)

Invasive Non-native Species

- 3.3.13 A stand of Japanese Knotweed (approximately 2m x 4m, cordoned off by Heras fencing) was confirmed to be still present within the northern edge of the Site (see TN 3 on Figure 4), within the slope of an area of stored soil. with no increase in extent since the survey by Japanese Knotweed Solutions (2025).

- 3.3.14 As identified in the limitations section of this report the area of dense scrub bordering the east of the Site was so dense that a thorough assessment of this area for INNS could not be undertaken.

3.4 Protected Fauna and/or Species of Conservation Concern

Terrestrial invertebrates

- 3.4.1 A total of 80 species of invertebrates were identified from the desk study within a 2km radius of the Site of which are either considered notable species, scarce, 'Red' listed under the International Union for the Conservation of Nature (IUCN) guidelines, priority species or listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). The Site contains minimal deadwood or other habitats likely to be of value to noteworthy invertebrates.
- 3.4.2 There was potential for common invertebrates to use the boundary habitats, but limited potential within the central area due to the regular vegetation clearance.

Bats

- 3.4.3 A total of 13 species of bat were identified within a 2km radius of the Site from within the last 10 years comprising barbastelle (*Barbastella barbastellus*), brown long-eared (*Plecotus auritus*), common pipistrelle (*Pipistrellus pipistrellus*), Daubenton's bat (*Myotis daubentonii*), Leisler's bat (*Nyctalus leisleri*), Nathusius's pipistrelle (*Pipistrellus nathusii*), noctule (*Nyctalus noctula*), serotine (*Eptesicus serotinus*) and soprano pipistrelle (*Pipistrellus pygmaeus*).
- 3.4.4 Three granted EPS licences were identified within a 2km radius of the Site. The licences were identified within the northeast of the Site and included:
- Case reference 2015-14868-EPS-MIT (brown long-eared and common pipistrelle);
 - Case reference EPSM2013-6388 (brown long-eared and common pipistrelle); and
 - Case reference 2015-15548-EPS-MIT (common pipistrelle and soprano pipistrelle).
- 3.4.5 An Ash tree appeared to contain a single knothole which may lead into a hollow cavity facing towards the south at approximately 8m above ground level (see TN2 on Figure 4). From examination at ground-level it appeared that this feature was suitable for use by a small number of bats and was classified as PRF-I following best practice guidelines (Collins, J. (ed), 2023). A dead tree laden with Common Ivy (see TN1 on Figure 4) was categorised as Further Assessment Required (FAR) due to any potential features being obscured from sight. The Site supports foraging and commuting habitat for bats consisting of woodland, mixed scrub, unmanaged grassland, tall forbs/ruderal and a hedge.
- 3.4.6 Works including the removal of trees or any potential night working could injure or kill a bat, damage or destroy its roost or cause disturbance therefore recommendations are provided below to ensure compliance with legislation. Full details of the legislation providing protection to bats is provided in Appendix H below.

Great Crested Newt

- 3.4.7 Approximately 13 waterbodies comprising ponds and drainage ditches were identified within a 500m radius of the site. Five of the waterbodies are located to the south of the M4 motorway which presents a significant barrier to dispersal for amphibians and can therefore be discounted. The remaining waterbodies may have the potential to support breeding great crested newt (*Triturus cristatus*).
- 3.4.8 A total of five records of great crested newt within a 2km radius of the Site were identified from the desk study. No EPS licence returns were identified during the desk study.
- 3.4.9 The Site contains suitable foraging habitat to support great crested newt and other amphibian species such as common toad (*Bufo bufo*) such as woodland, dense scrub, grassland and tall forbs. Works within the Site such as the removal of vegetation has the potential to affect amphibians.
- 3.4.10 Full legislation protecting great crested newt is given in Appendix H below.

Otter and Water Vole

- 3.4.11 A total of six records of otter (*Lutra lutra*) and 22 records for water vole (*Arvicola amphibius*) were identified within a 2km of the Site from within the last 10 years. A large waterbody is present to the west of the Site which may have the potential to support otter. No EPS licences relating to otter were identified within a 2km radius of the Site.
- 3.4.12 An active railway line separates the waterbody from the Site which would be a hinderance the movement of otter, therefore otter is unlikely to be found using layup habitats within the Site.
- 3.4.13 No aquatic habitats suitable for otter or water vole were recorded on the Site. Both otter and water vole are unlikely to be present within the Site and can be scoped out for further consideration within the report.

Badgers

- 3.4.14 A total of 50 records of badger were found within 2km of the Site from within the last 10 years during the desk study.
- 3.4.15 No setts, potential setts or badger field signs such as well-worn paths, latrines, hairs were recorded within or immediately adjacent to the Site. The site does contain suitable habitat for foraging, commuting and sett creation including woodland, mixed scrub, unmanaged grassland and tall forbs/ruderal therefore badger may only intermittently use the Site.
- 3.4.16 Full details of the legislation offering protection to badgers and their active setts is provided in Appendix H below.

Hazel Dormouse

- 3.4.17 A single record of hazel dormouse (*Muscardinus avellanarius*) was found at approximately 2km west of the Site (dated 2023) during the desk study. The railway on the western boundary of the Site likely acts as a barrier to dispersal from the recorded location to the Site.
- 3.4.18 No field signs of hazel dormouse were recorded within or immediately adjacent to the Site. The site contained habitat of low to moderate suitability for hazel dormouse, namely the small areas of mixed scrub and woodland at the east/northeastern boundaries of the Site.
- 3.4.19 Full details of the legislation offering protection to hazel dormouse and is provided in Appendix H below.

Reptiles

- 3.4.20 A total of 159 records of common reptiles were identified from the desk study within a 2km radius of the Site from within the last 10 years including grass snake (*Natrix helvetica*) and slow worm (*Anguis fragilis*).
- 3.4.21 The site contains suitable habitat for foraging and hibernation including woodland, mixed scrub, tall forbs and grassland.
- 3.4.22 Full details in relation to the legislation protected reptiles are provided in Appendix H below.

Birds

- 3.4.23 Desk study records identified a large assemblage of bird species within 2km of the Site, including species of conservation importance. These records are broadly associated with the extensive wetland, riverine and open mosaic habitats present in the surrounding landscape, including Burghfield Gravel Pits LWS.
- 3.4.24 Bird species specially protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were identified within the search area, including barn owl (*Tyto alba*), kingfisher (*Alcedo atthis*), Cetti's warbler (*Cettia cetti*), bittern (*Botaurus stellaris*), hobby (*Falco subbuteo*) and little ringed plover (*Charadrius dubius*). A substantial number of species are listed as Species of Principal Importance in England and/or included on the Red and Amber Lists of Birds of Conservation Concern, indicating the wider ecological importance of the surrounding landscape.
- 3.4.25 The Site itself is considered to provide negligible suitability for nesting or supporting Schedule 1 species, due to the absence of appropriate habitats such as mature woodland, waterbodies, or undisturbed reedbed and scrub. Burghfield Gravel Pits LWS and associated habitats are known to support important breeding and foraging bird assemblages, including Schedule 1 species, and therefore represent a key ecological resource within the wider landscape.
- 3.4.26 The site does contain suitable nesting and foraging opportunities for birds including woodland and mixed scrub. The grassland provides suitable habitat for ground nesting birds such as skylark (*Alauda arvensis*). The site is unlikely to support any bird species listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981).

3.4.27 Full details of the legislation giving protection to breeding birds is given below in Appendix H.

Other Mammals

3.4.28 Desk records of other mammal species were found within 2km of the Site, including hedgehog (*Erinaceus europaeus*), harvest mouse (*Micromys minutus*) and brown hare (*Lepus europaeus*).

3.4.29 The site contains suitable foraging and resting habitat for other mammals such as hedgehog and brown hare including broadleaved woodland, scrub, ruderal/tall forbs and grassland.

Invasive Species

3.4.30 A stand of Japanese Knotweed (approximately 2m x 4m, cordoned off by Heras fencing) was confirmed to be still present within the northern edge of the Site (see TN3 1 on Figure 4), within the slope of an area of stored soil. with no increase in extent since the survey by Japanese Knotweed Solutions (2025).

3.4.31 The area of mixed scrub on the eastern border was dense in places and therefore could not be thoroughly assessed for INNS therefore a precautionary approach should be followed to works in this area which is detailed in Section 4.3 below.

3.4.32 Details in relation to the legislation governing INNS is provided in Appendix H below.

4 Discussion

4.1 Ecological Features

Ecological Features not Relevant to the Site

- 4.1.1 The following ecological features have been found to be absent on/near to the Site and not requiring further consideration (with regard to the proposed soil removal scheme on the Site - no potential impacts are anticipated).
- 4.1.2 **Statutory designated nature conservation sites:** there were no SACs, SPAs, SSSIs or Ramsar sites within 10km of the Site, or other statutory designated sites within 2km of the Site.
- 4.1.3 **Non statutory designated nature conservation sites:** There were eight non-statutory sites located within 2km of the Site. The nearest site was Burghfield Gravel Pits LWS, (50m to the west of the Site, beyond the railway embankment) which primarily supports wintering, passage and breeding birds (including Schedule 1 listed species). The existing railway embankment between LWS and the Site is considered sufficient to provide screening from noise and visual daytime disturbance to birds here, though artificial lighting should be designed to reduce the impact of disturbance to species using the LWS.
- 4.1.4 **Priority habitats:** The priority deciduous woodland which is located within 2km of the Site is sufficiently distant that they will not be affected by the works and are therefore not an ecological constraint.
- 4.1.5 **Notable invertebrates:** Habitats which have been found on the Site are common and widespread. The proposed works are unlikely to significantly impact the invertebrate assemblage in the area.

Ecological Features Relevant to the Site

- 4.1.6 **Bats:** An Ash tree was identified with suitable to support roosting bats (PRF-I) and a dead tree laden with Common Ivy was categorised as FAR (see TN2 and TN1 respectively on Figure 4, Appendix F). The site also contains suitable habitat for foraging bats including woodland, scrub, tall ruderal/ephemeral and grassland. Recommendations in relation to bats are therefore provided below.
- 4.1.7 **Amphibians:** Several waterbodies are present within a 250m radius of the Site which may have the potential to support great crested newt. The Site contains suitable foraging and hibernation habitat for this species including woodland, mixed scrub and grassland therefore this group has been included for further assessment.
- 4.1.8 **Badger:** Badgers were present in the desk study, though no evidence of presence was recorded on Site. The central area and boundary habitats on the Site provide suitable foraging and sett-building habitat for badger.
- 4.1.9 **Hazel dormouse:** Hazel dormouse was identified in the desk study, though no evidence of presence was recorded on the Site. The east/northeastern boundary habitats on the Site provide suitable foraging and nest-building habitat for hazel dormouse.

- 4.1.10 **Reptiles:** The central part of the Site provided habitat of low suitability for reptiles with surrounding habitats on and off-site are of greater value. It is possible that reptiles would be present within the central area of the Site in small numbers.
- 4.1.11 **Birds:** The woodland and scrub at the boundaries provide suitable habitat for nesting birds, and the central grassland area may support ground-nesting birds.
- 4.1.12 **Hedgehogs and other mammals:** The site contains suitable habitat for other mammals including broadleaved woodland, scrub, ruderal/tall forbs and grassland. Recommendations are therefore given below to protect these species during works.
- 4.1.13 **Invasive species:** A stand of Japanese Knotweed (approximately 2m x 4m, cordoned off by Heras fencing) was confirmed to be still present within the northern edge of the Site.

4.2 Further Surveys

- 4.2.1 No further surveys are recommended to inform the ecological baseline conditions or recommendations for mitigation.

4.3 Recommended Mitigation

- 4.3.1 The recommendations outlined below have been provided to minimise the ecological effects of the Proposed Development and deliver a net gain in biodiversity as required by legislation and policy. These recommendations should be included in a Precautionary Working Method Statement (PWMS) that should be adhered to by all parties undertaking works at the Site.

Bats

- 4.3.2 A single Ash tree with individual bat roosting potential (PRF-I) and a dead tree laden with Common Ivy was categorised as FAR (see TN2 and TN1 respectively on Figure 4, Appendix F). If these trees require trimming or removal, works should be undertaken under ecological supervision. If it is necessary to remove any limb with a feature suitable for use by bats a sectional felling approach should be used, whereby the limb containing the feature is carefully lowered to the ground for inspection by the supervising ecologist.
- 4.3.3 Where considered necessary by the ecologist, the feature should be left in situ on the ground for a period of up to 24 hours to allow any bats present to naturally disperse.
- 4.3.4 If evidence of bats is identified at any stage, works affecting the feature should cease immediately and further advice should be sought from a suitably qualified ecologist. If required, works should only proceed under the appropriate mitigation measures and any relevant licence.
- 4.3.5 To minimise disturbance to bats that may be foraging or commuting in the locality, artificial lighting should be task focused to reduce light spill and noise minimised which would include avoiding leaving machinery and vehicles idling when not in use. The use of artificial lighting during works should follow best practice guidelines for bats as published by the Institute of Lighting Engineers (Bat Conservation Trust, 2023).

Reptiles and Amphibians

- 4.3.6 The areas of woodland, scrub, ruderal/tall forbs and grassland have the potential to support common reptiles and amphibians, therefore clearance of this habitat would ideally need to be completed during the active reptile and amphibian period (mid-March to mid-October inclusive) using a two phased approach as described below:
- 4.3.7 **Phase 1:** The vegetation should be cut under the ecological oversight of an ECoW to a height of approximately 300mm using only hand tools (i.e. brush cutters/strimmers) with arisings removed from the works footprint. At this point, the cleared area will be inspected by the ecologist to check for reptiles and amphibians; and
- 4.3.8 **Phase 2:** Following 24 hours, vegetation should be inspected again by the ecologist and cut to ground level using only hand tools. Arisings should be removed to outside the works area.
- 4.3.9 If present, features suitable as hibernacula such as log, brash or rubble piles should be buffered from works using a 2m exclusion zone within which no works takes place. Should these features require dismantling or relocating, this should be overseen by an ecologist during the active period (mid-March to mid-October inclusive). Excavations should be covered overnight, or suitable escape ramps installed to prevent reptiles or amphibians from becoming trapped.

Badger and Other Mammals

- 4.3.10 Due to the presence of badger and other mammals within the locality, any excavations should be covered at night or a soil ramp or wooden plank installed to ensure that any animals can escape.
- 4.3.11 A walkover survey should be undertaken (by a suitably qualified ecologist) no more than 48 hours prior to any soil-moving or vegetation removal works, to identify the location of all burrows, dens and setts.
- 4.3.12 Rabbits (*Oryctolagus cuniculus*) and foxes (*Vulpes vulpes*) must be humanely removed from burrows/dens which it is necessary to destroy these features, using methods described in Natural England guidance (Natural England, 2023^a and Natural England, 2023^b).
- 4.3.13 If an active badger sett is identified within the Site boundary, a licence from Natural England would be required if the sett is likely to be disturbed or would need to be destroyed.
- 4.3.14 Any excavations left overnight must be left in a state where mammals (and other animals) cannot become trapped, for example by providing a suitable soil ramp at one edge.

Hazel Dormouse

- 4.3.15 Due to the presence of hazel dormouse within the locality, any proposed work area affecting the scrub and woodland habitats, should be surveyed by a suitably experienced ecologist no more than 24 hours prior to vegetation clearance, to confirm the absence of hazel dormouse. If a hazel dormouse or its nest is discovered then works would need to cease on all connected scrub/woodland habitats and within a suitable exclusion zone (to be confirmed by the Site ecologist) until further ecological advice is sought. It may then be necessary to apply for a licence before works can continue.

Birds

- 4.3.16 Vegetation and topsoil removal should ideally be undertaken outside of the breeding bird season (March-August inclusive). Where works within this season are unavoidable, the proposed work area should be surveyed by a suitably experienced ecologist no more than 24 hours prior to vegetation clearance, to confirm the absence of nesting birds. Should nesting birds be present then construction works would need to cease in a suitable exclusion zone established around the nest (to be confirmed by the Site ecologist) until the chicks have fledged.

Invasive species

- 4.3.17 A Japanese Knotweed management plan should be developed, informed by the Japanese Knotweed Solutions report (2025), to mitigate the risk of the spread of Japanese Knotweed within and without the Site.
- 4.3.18 Given the known presence of INNS on the Site, there remains a residual risk that these species may be present in further areas, particularly within the area of dense scrub (labelled MS1 on Figure 4, Appendix F) along the eastern boundary (see limitations in Section 2.3.9).
- 4.3.19 If further INNS are encountered during works, they should be subject to an appropriate exclusion buffer and a specialist contractor appointed to undertake their removal.

5 Biodiversity Net Gain

- 5.1.1 The Environment Act 2021 (HM Government, 2021) places a statutory obligation on developments to achieve a minimum 10% BNG. A full assessment of baseline habitats is provided below.
- 5.1.2 To address the deficit arising from the loss of on-site habitat, it has been agreed that, to ensure compliance and minimise risk, all required BNG units will be secured through off-site habitat enhancement or creation. This will be delivered via a bespoke habitat bank, which will, where possible, be located within one of the two relevant Local Planning Authority (LPA) boundaries (the Site falls within both Wokingham Borough Council and West Berkshire Council boundaries) to minimise spatial risk and therefore the number of units that need to be purchased.

5.2 On-site Baseline Habitats

- 5.2.1 Figure 4, Appendix F, shows the on-site habitats within the Site and the baseline including area coverage and condition of the habitats present are provided in Table 5-1 below.

Table 5-1 On-site Baseline

Habitat Type	Parcel Reference Number	Distinctiveness	Condition	Approximate Area (Ha)	Habitat Units
Woodland and Forest (Other Woodland; Broadleaved)	WD1	Medium	Moderate	0.1	1.09
Heathland and Scrub (Mixed Scrub)	MS1	Medium	Moderate	0.2	1.66
Grassland (Other Neutral Grassland)	G1	Medium	Moderate	1.5	11.78
Sparsely Vegetated Land (Ruderal/Ephemeral)	ESP1	Low	Good	0.1	0.62
Sparsely Vegetated Land (Tall Forbs)	TR1 & TR2	Low	Good	0.5	3.11
Totals				2.4	18.27

5.3 Post works delivery of biodiversity units

- 5.3.1 The baseline habitats currently present on Site comprise of **18.27** habitat units (Table 5-1). The Proposed Development has the potential to result in a net change of **-15.73** units, i.e., the loss of all habitat within the 'Previously Imported Soil Relocation Area' (as shown on Figure 4) and a small area to facilitate the Site's road entrance.
- 5.3.2 To achieve a 10% biodiversity net gain, a total of **20.09 units** of habitat creation/enhancement would be required. To satisfy the BNG trading rules (HM Government, 2026^b) these units would need to be for habitats of medium distinctiveness or higher.

- 5.3.3 As habitat enhancement/creation is not feasible within the Site given the intended end state, BNG units will be purchased from a habitat bank (despite the planned restoration to agricultural land use, the subsequent site management cannot feasibly be secured for the required minimum of 30 years).

5.4 Summary of BNG Results

- 5.4.1 At baseline the site supported 18.27 biodiversity units comprising 14.53 units of habitats of medium distinctiveness (other woodland, broadleaved, scrub and other neutral grassland) and 3.73 units of habitats of low distinctiveness (sparsely vegetated land). There were no hedgerow units or watercourse units on the Site. To deliver BNG, 20.09 habitat units would need to be purchased in the same local authority area. If no units are available in the local authority area more units would need to be purchased to take account of this additional spatial risk.
- 5.4.2 Full habitat condition assessments for each parcel are presented in Appendix I.
- 5.4.3 Under the current proposals, a 10% net gain will be achieved, by purchasing biodiversity units from a habitat bank to satisfy trading rules units relating to medium distinctiveness habitats (or higher) would need to be purchased.
- 5.4.4 The on-site post-intervention scenario has been modelled as the loss of all baseline habitat within the 'Previously Imported Soil Relocation Area' (as shown on Figure 4) and a small area to facilitate the Site's road entrance, with the creation of no on-site habitats.

6 Conclusions

- 6.1.1 This report has assessed the potential impacts upon ecological features resulting from the Proposed Development and undertaken an assessment of the habitats on site in regard to BNG.
- 6.1.2 A PWMS for vegetation removal and soil-moving works should be developed, particularly in regard to the potential for protected species to be present within the Site.
- 6.1.3 A Japanese Knotweed management plan should be developed, to mitigate the risk of the spread of Japanese Knotweed within and without the Site.
- 6.1.4 Any vegetation or topsoil removal should ideally be completed outside of the breeding bird season (March – August inclusive) or should be done after suitable checks for mammal burrows, hazel dormouse and nesting birds, under the supervision of an ECoW.
- 6.1.5 Night works should be avoided, or a suitable lighting scheme designed to prevent negative effects on bats and birds.
- 6.1.6 Due to the presence of badgers and other vulnerable animals within the locality, all excavations must be covered during the night or have a ramp to allow any trapped mammals to escape.
- 6.1.7 BNG of 10% will be achieved by the purchase of 20.09 offsite habitat units, as onsite habitat creation or enhancement is not possible – despite the planned restoration to agricultural land use, the subsequent site management cannot feasibly be secured for the required minimum of 30 years.

7 References

Arcadis (2025) Land At Kirtons Farm Road, Reading - Preliminary Ecological Appraisal Report 2025.

Baker, J. et al (2016) Biodiversity Net Gain – Good practice principles for development [online]. Available at: <https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf>

Bat Conservation Trust (2023) Bats and artificial light at night - ILP Guidance Note update [online]. Available at: <https://www.bats.org.uk/news/2023/08/bats-and-artificial-lighting-at-night-ilp-guidance-note-update-released>

Chartered Institute of Ecology and Environmental Management (2017^A) Guide to Ecological Surveys and Their Purpose [Accessed online January 2026] <https://cieem.net/resource/guide-to-ecological-surveys-and-their-purpose/>

Chartered Institute of Ecology and Environmental Management (2017^B) Guidelines for Preliminary Ecological Appraisal (2nd Edition). Winchester: CIEEM.

Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists (4th edition). The Bat Conservation Trust, London.

HM Government (1981) Wildlife and Countryside Act [online]. Available at: <https://www.legislation.gov.uk/ukpga/1981/69>

HM Government (1990) Environmental Protection Act [online]. Available at: <https://www.legislation.gov.uk/ukpga/1990/43/contents>

HM Government (1992) Protection of Badgers Act [online]. Available at: <https://www.legislation.gov.uk/ukpga/1992/51/contents>

HM Government (1996) Wild Mammals (Protection) Act [online]. Available at: <https://www.legislation.gov.uk/ukpga/1996/3/contents>

HM Government (2006) Natural Environment and Rural Communities [online]. Available at: <https://www.legislation.gov.uk/ukpga/2006/16/contents>

HM Government (2017) The Conservation of Habitats and Species Regulations [online]. Available at: <https://www.legislation.gov.uk/uksi/2017/1012/contents>

HM Government (2021) Environment Act [online]. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents>

HM Government (2026^A) Guidance – Statutory biodiversity metric tools and guides – Tools and guides for measuring the biodiversity value of habitat for biodiversity net gain (BNG) [online]. Available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

HM Government (2026^B) The Statutory Biodiversity Metric User Guide [online]. Available at: https://assets.publishing.service.gov.uk/media/6866779ee134dfbc2e9e6d39/The_Statutory_Biodiversity_Metric_-_User_Guide_-_July_2025.pdf

Joint Nature Conservation Committee (JNCC) 2010: Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit.

MAGIC (2018) Magic Interactive Mapping Application. Available from: <https://magic.defra.gov.uk/MagicMap.html> [Accessed online April 2026]

Natural England (2023^a) Rabbits: How to control numbers [online]. Available at: <https://www.gov.uk/guidance/rabbits-how-to-control-numbers>

Natural England (2023^b) Foxes, moles and mink: how to protect your property from damage [online]. Available at: <https://www.gov.uk/guidance/foxes-moles-and-mink-how-to-protect-your-property-from-damage>

Ramboll (UK) Ltd (2022) Green Park Ecological Constraints Report.

Ramboll (UK) Ltd (2023) Green Park Ecological Constraints Report.

UKHab Ltd (2023) UK Habitat Classification Version 2.0 [online]. Available at: <https://www.ukhab.org>

Appendix A

Study Limitations

This appendix should be read before reliance is placed on any of the information, opinions, advice, recommendations or conclusions contained in this report.

1. This report has been prepared by Arcadis (UK) Limited ('Arcadis'), with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with M&G Real Estate Limited (M&G) acting on behalf of Prudential Assurance Company Ltd (the 'Client'). Arcadis does not accept responsibility for any matters outside the agreed scope.
2. This report has been prepared for the sole benefit of the Client unless agreed otherwise in writing. The contents of this report may not be used or relied upon by any person other than this party without the express written consent and authorisation of Arcadis.
3. Unless stated otherwise, no consultations with authorities or funders or other interested third parties have been carried out. Arcadis is unable to give categorical assurance that the findings will be accepted by these third parties as such bodies may have unpublished, more stringent objectives. Further work may be required by these parties.
4. All work carried out in preparing this report has used, and is based on, Arcadis' professional knowledge and understanding of current relevant legislation. Changes in legislation or regulatory guidance may cause the opinion or advice contained in this report to become inappropriate or incorrect. In giving opinions and advice, pending changes in legislation, of which Arcadis is aware, have been considered. Following delivery of the report, Arcadis has no obligation to advise the Client or any other party of such changes or their repercussions.
5. This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report.
6. Whilst this report and the opinions made are correct to the best of Arcadis' belief, Arcadis cannot guarantee the accuracy or completeness of any information provided by third parties. provided by third parties. Arcadis has taken reasonable steps to ensure that the information sources used for this assessment provided accurate information and has therefore assumed this to be the case.
7. This report has been prepared based on the information reasonably available during the project programme. All information relevant to the scope may not have been received.
8. This report refers, within the limitations stated, to the condition of the Site at the time of the inspection. No warranty is given as to the possibility of changes in the condition of the Site since the time of the investigation.
9. The content of this report represents the professional opinion of experienced environmental consultants. Arcadis does not provide specialist legal or other professional advice. The advice of other professionals may be required.
10. Where intrusive investigation techniques have been employed, they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. In some cases, the investigation is further limited by Site operations, underground obstructions and above ground structures. Unless otherwise stated, areas beyond the boundary of the Site have not been investigated.
11. If below ground intrusive investigations have been conducted as part of the scope, safe location of exploratory holes has been carried out with reference to the Arcadis ground disturbances procedure. No guarantee can be given that all services have been identified. Additional services, structures or other below ground obstructions, not indicated on the drawing, may be present on Site.
12. Unless otherwise stated the report provides no comment on the nature of building materials, operational integrity of the facility or on any regulatory compliance issues.
13. Unless otherwise stated, an inspection of the Site has not been undertaken and there may be conditions present at the Site which have not been identified within the scope of this assessment.
14. Unless otherwise stated, samples from the Site (soil, groundwater, building fabric or other samples) have not been obtained.
15. Arcadis has relied upon the accuracy of documents, oral information and other material and information provided by the Client and others, and Arcadis assumes no liability for the accuracy of such data, although in the event of apparent conflicts in information, Arcadis would highlight this and seek to resolve.
16. Unless otherwise stated, the scope of works has not included an environmental compliance review, health and safety compliance review, hazardous building materials assessment, interviews or contacting Local Authority, requests for information to the petroleum officer, sampling or analyses of soil, ground water, surface water, air or hazardous building materials or a chain of title review.
17. Unless otherwise stated, this assessment has considered the ongoing use of the Site and has not been prepared for the purposes of redevelopment which may act as a trigger for Site investigation and remediation works not needed for ongoing use.

Appendix B

Local Record Centre Data

Table 7-1 Non-statutory Designated Nature Conservation Sites within a 2km Radius of the Site

Site Name	Designation	Description	Distance from Site
Burghfield Gravel Pits	Local Wildlife Site	Gravel pits supporting a range of wildfowl and other birds, including Schedule 1 species and passage migrants.	50m west
Pinge Wood	Local Wildlife Site	Supports ancient and semi-natural woodland.	920m southwest
Fobney Island	Local Wildlife Site	Supports a mosaic of wetland habitats and 13 species from the Berkshire Rare Plants register.	1.4km north
River Kennet/Kennet and Avon Canal	Local Wildlife Site	Part of the overarching Kennet Valley East which supports a range of habitats including chalk river, reedbeds, fen, wet woodland, lowland meadow, wet grassland and standing water in the form of gravel pits.	1.5km north
Fobney and Kennet Valley Meadows	Local Wildlife Site	As above.	1.3km northwest
Fobney and Kennet Valley Meadows Proposed Extension	Berkshire Proposed Local Wildlife Site Extension	As above.	1.5km northwest
Holy Brook	Local Wildlife Site	Supports chalk river habitat and associated species.	1.7km north
Great Lea Pond	Local Wildlife Site	Supports wetland habitat and a population of water-violet	1.4 km southeast

Table 7-2 Records of Protected and Notable/Priority Species Within 2km of the Site

Name	Notable and Protected Status
Plants	
Annual Beard-grass (<i>Polypogon monspeliensis</i>)	Nationally Scarce
Bluebell (<i>Hyacinthoides non-scripta</i>)	Schedule 8 of the Wildlife and Countryside Act 1981
Common Valerian (<i>Valeriana officinalis</i>)	IUCN Red List
Crosswort (<i>Cruciata laevipes</i>)	IUCN Red List

Name	Notable and Protected Status
English Whitebeam (<i>Sorbus anglica</i>)	Nationally scarce; IUCN Red List
Galingale (<i>Cyperus longus</i>)	Nationally Scarce, IUCN Red List
Goldenrod (<i>Solidago virgaurea</i>)	IUCN Red List
Hoary Plantain (<i>Plantago media</i>)	IUCN Red List
Lesser Spearwort (<i>Ranunculus flammula</i>)	IUCN Red List
Lizard Orchid (<i>Himantoglossum hircinum</i>)	Schedule 8 of the Wildlife and Countryside Act 1981; Nationally Scarce
Sanicle (<i>Sanicula europaea</i>)	IUCN Red List
Stinking Chamomile (<i>Anthemis cotula</i>)	IUCN Red List
Water-violet (<i>Hottonia palustris</i>)	IUCN Red List
Wood-sorrel (<i>Oxalis acetosella</i>)	IUCN Red List
Invertebrates	
A True Bug (<i>Graptopeltus lynceus</i>)	Notable species.
A True Fly (<i>Helina parcepilosa</i>)	Red listed species
An Ant, Bee, Sawfly or Wasp (<i>Auplopus carbonarius</i>)	Notable species.
An Ant, Bee, Sawfly or Wasp (<i>Anoplius caviventris</i>)	Notable species.
An Ant, Bee, Sawfly or Wasp (<i>Ectemnius ruficornis</i>)	Notable species.
An Ant, Bee, Sawfly or Wasp (<i>Priocnemis hyalinata</i>)	Notable species.
Lobe-spurred Furrow Bee (<i>Lasioglossum pauxillum</i>)	Notable species.
Painted Nomad Bee (<i>Nomada fucata</i>)	Notable species.
Rough-backed Blood Bee (<i>Sphecodes scabricollis</i>)	Red listed species.
Sharp-collared Furrow Bee (<i>Lasioglossum malachurum</i>)	Notable species.
Shingle Yellow-face Bee (<i>Hylaeus annularis</i>)	IUCN Red listed species.
Small Tiphia (<i>Tiphia minuta</i>)	Notable species.

Name	Notable and Protected Status
Swollen-thighed Blood Bee (<i>Sphecodes crassus</i>)	Notable species.
A Beetle (<i>Peltodytes caesus</i>)	Nationally scarce.
A Beetle (<i>Hygrotus nigrolineatus</i>)	Nationally scarce.
A Beetle (<i>Nebrioporus depressus</i>)	Notable species; IUCN Red listed species.
A Beetle (<i>Helophorus longitarsis</i>)	Nationally scarce.
A Beetle (<i>Cercyon bifenestratus</i>)	Nationally scarce.
A Beetle (<i>Heterocerus marginatus</i>)	Nationally scarce.
A Beetle (<i>Gymnetron villosulum</i>)	Nationally scarce.
A Beetle (<i>Labarrus lividus</i>)	IUCN Red listed species.
A Beetle (<i>Drupenatus nasturtii</i>)	Notable species.
A Beetle (<i>Notaris scirpi</i>)	Notable species.
A Beetle (<i>Diplapion stolidum</i>)	Notable species.
A Beetle (<i>Squamapion cineraceum</i>)	Notable species.
A Beetle (<i>Trichosirocalus rufulus</i>)	Notable species.
A Beetle (<i>Tychius pusillus</i>)	Notable species.
A Beetle (<i>Microplontus triangulum</i>)	Notable species.
A Beetle (<i>Sibinia primita</i>)	Notable species.
A Beetle (<i>Macronychus quadrituberculatus</i>)	IUCN Red listed species.
A Beetle (<i>Acupalpus flavicollis</i>)	IUCN Red listed species.
A Beetle (<i>Nicrophorus interruptus</i>)	Notable species.
A Beetle (<i>Hydrochus elongatus</i>)	IUCN Red listed species.
A Beetle (<i>Enochrus quadripunctatus</i>)	Nationally scarce.
A Beetle (<i>Helophorus alternans</i>)	Nationally scarce.
A Beetle (<i>Gyrinus paykulli</i>)	Nationally scarce.
A Beetle (<i>Gabrius bishopi</i>)	Notable species.

Name	Notable and Protected Status
A Beetle (<i>Choleva glauca</i>)	Notable species.
A Beetle (<i>Rhantus frontalis</i>)	Nationally scarce.
Alder Leaf Beetle (<i>Agelastica alni</i>)	IUCN Red listed species.
Apple-blossom Weevil (<i>Anthonomus pomorum</i>)	IUCN Red listed species.
Large Fruit Bark Beetle (<i>Scolytus mali</i>)	Notable species.
Stag Beetle (<i>Lucanus cervus</i>)	Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act
Dingy Skipper (<i>Erynnis tages</i>)	SPIE under S41 of the NERC Act; IUCN Red listed species.
Small Heath (<i>Coenonympha pamphilus</i>)	SPIE under S41 of the NERC Act; IUCN Red listed species.
Small Heath (<i>Coenonympha pamphilus pamphilus</i>)	SPIE under S41 of the NERC Act; IUCN Red listed species.
Common Club-tail (<i>Gomphus vulgatissimus</i>)	Red listed species.
Common Darter (<i>Sympetrum striolatum</i>)	Red listed species.
Variable Damselfly (<i>Coenagrion pulchellum</i>)	Red listed species.
A Lacewing (<i>Sisyra terminalis</i>)	Notable species.
A Mayfly (<i>Baetis fuscatus</i>)	Red listed species.
Depressed River Mussel (<i>Pseudanodonta complanata</i>)	SPIE under S41 of the NERC Act; IUCN Red listed species.
Desmoulin's Whorl Snail (<i>Vertigo moulinsiana</i>)	SPIE under S41 of the NERC Act; IUCN Red listed species.
Fine-lined Pea Mussel (<i>Odhneripisidium tenuilineatum</i>)	SPIE under S41 of the NERC Act
Marsh Pond Snail (<i>Stagnicola palustris/fuscus/corvus</i>)	IUCN Red listed species.
Mud Pond Snail (<i>Omphiscola glabra</i>)	SPIE under S41 of the NERC Act
August Thorn (<i>Ennomos quercinaria</i>)	SPIE under S41 of the NERC Act
Blood-vein (<i>Timandra comae</i>)	SPIE under S41 of the NERC Act

Name	Notable and Protected Status
Buff Ermine (<i>Spilosoma lutea</i>)	SPIE under S41 of the NERC Act
Bulrush Veneer (<i>Calamotropha paludella</i>)	Notable species.
Centre-barred Sallow (<i>Atethmia centrargo</i>)	SPIE under S41 of the NERC Act
Cinnabar (<i>Tyria jacobaeae</i>)	SPIE under S41 of the NERC Act
Dusky Thorn (<i>Ennomos fuscantaria</i>)	SPIE under S41 of the NERC Act
Ghost Moth (<i>Hepialus humuli</i>)	SPIE under S41 of the NERC Act
Knot Grass (<i>Acronicta rumicis</i>)	SPIE under S41 of the NERC Act
Lackey (<i>Malacosoma neustria</i>)	SPIE under S41 of the NERC Act
Large Wainscot (<i>Rhizedra lutosa</i>)	SPIE under S41 of the NERC Act
Marjoram Snout (<i>Acompsia schmidtellus</i>)	Notable species.
Mottled Rustic (<i>Caradrina morpheus</i>)	SPIE under S41 of the NERC Act
Mouse Moth (<i>Amphipyra tragopoginis</i>)	SPIE under S41 of the NERC Act
Oak Hook-tip (<i>Watsonalla binaria</i>)	SPIE under S41 of the NERC Act
Rosy Knot-horn (<i>Oncocera semirubella</i>)	Notable species.
Rosy Rustic (<i>Hydraecia micacea</i>)	SPIE under S41 of the NERC Act
Rustic (<i>Hoplodrina blanda</i>)	SPIE under S41 of the NERC Act
September Thorn (<i>Ennomos erosaria</i>)	SPIE under S41 of the NERC Act
Shaded Broad-bar (<i>Scotopteryx chenopodiata</i>)	SPIE under S41 of the NERC Act
Small Square-spot (<i>Diarsia rubi</i>)	SPIE under S41 of the NERC Act
Spindle Knot-horn (<i>Nephopterix angustella</i>)	Notable species.
Sulphur Pearl (<i>Sitochroa palealis</i>)	Notable species.
White Ermine (<i>Spilosoma lubricipeda</i>)	SPIE under S41 of the NERC Act
Amphibians	
Common Frog (<i>Rana temporaria</i>)	Schedule 5 of the Wildlife and Countryside Act 1981. SPIE under S41 of the NERC Act.

Name	Notable and Protected Status
Common Toad (<i>Bufo bufo</i>)	Schedule 5 of the Wildlife and Countryside Act 1981. SPIE under S41 of the NERC Act.
Great Crested Newt (<i>Triturus cristatus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017, Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act.
Palmate Newt (<i>Lissotriton helveticus</i>)	Schedule 5 of the Wildlife and Countryside Act 1981.
Smooth Newt (<i>Lissotriton vulgaris</i>)	Schedule 5 of the Wildlife and Countryside Act 1981.
Reptiles	
Grass snake (<i>Natrix helvetica</i>)	Wildlife and Countryside Act 1981 (as amended) and Species of Principal Importance in England.
Slow worm (<i>Anguis fragilis</i>)	Wildlife and Countryside Act 1981 (as amended) and Species of Principal Importance in England.
Birds	
Avocet (<i>Recurvirostra avosetta</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Bar-tailed Godwit (<i>Limosa lapponica</i>)	Amber List (Birds of Conservation Concern).
Barn Owl (<i>Tyto alba</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Barnacle Goose (<i>Branta leucopsis</i>)	Amber List (Birds of Conservation Concern).
Bearded Tit (<i>Panurus biarmicus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Bittern (<i>Botaurus stellaris</i>)	Schedule 1 of the Wildlife and Countryside Act 1981-p1; SPIE under S41 of the NERC Act; Amber List (Birds of Conservation Concern).
Black Tern (<i>Chlidonias niger</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Amber List (Birds of Conservation Concern).
Black-necked Grebe (<i>Podiceps nigricollis</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).

Name	Notable and Protected Status
Black-tailed Godwit (<i>Limosa limosa</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Black-throated Diver (<i>Gavia arctica</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Black-winged Stilt (<i>Himantopus himantopus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Brambling (<i>Fringilla montifringilla</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Bullfinch (<i>Pyrrhula pyrrhula</i>)	SPIE under S41 of the NERC Act; Amber List (Birds of Conservation Concern).
Cattle Egret (<i>Ardea ibis</i>)	Amber List (Birds of Conservation Concern).
Cetti's Warbler (<i>Cettia cetti</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Common Gull (<i>Larus canus</i>)	Amber List (Birds of Conservation Concern).
Common Sandpiper (<i>Actitis hypoleucos</i>)	Amber List (Birds of Conservation Concern).
Common Tern (<i>Sterna hirundo</i>)	Amber List (Birds of Conservation Concern).
Corn Bunting (<i>Emberiza calandra</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Crane (<i>Grus grus</i>)	Amber List (Birds of Conservation Concern).
Crossbill (<i>Loxia curvirostra</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Cuckoo (<i>Cuculus canorus</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern)
Curlew (<i>Numenius arquata</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Dartford Warbler (<i>Curruca undata</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Dunlin (<i>Calidris alpina</i>)	Red List (Birds of Conservation Concern).
Dunnock (<i>Prunella modularis</i>)	SPIE under S41 of the NERC Act; Amber List (Birds of Conservation Concern).

Name	Notable and Protected Status
Eider (<i>Somateria mollissima</i>)	Amber List (Birds of Conservation Concern).
Fieldfare (<i>Turdus pilaris</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Red List (Birds of Conservation Concern).
Firecrest (<i>Regulus ignicapilla</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Gadwall (<i>Mareca strepera</i>)	Amber List (Birds of Conservation Concern).
Garganey (<i>Spatula querquedula</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Glaucous Gull (<i>Larus hyperboreus</i>)	Amber List (Birds of Conservation Concern).
Goldeneye (<i>Bucephala clangula</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Red List (Birds of Conservation Concern).
Goshawk (<i>Astur gentilis</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Grasshopper Warbler (<i>Locustella naevia</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Great Black-backed Gull (<i>Larus marinus</i>)	Amber List (Birds of Conservation Concern).
Great White Egret (<i>Ardea alba</i>)	Amber List (Birds of Conservation Concern).
Green Sandpiper (<i>Tringa ochropus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Greenfinch (<i>Chloris chloris</i>)	Red List (Birds of Conservation Concern).
Greenshank (<i>Tringa nebularia</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Grey Partridge (<i>Perdix perdix</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Grey Plover (<i>Pluvialis squatarola</i>)	Amber List (Birds of Conservation Concern).
Grey Wagtail (<i>Motacilla cinerea</i>)	Amber List (Birds of Conservation Concern).
Greylag Goose (<i>Anser anser</i>)	Amber List (Birds of Conservation Concern).
Hawfinch (<i>Coccothraustes coccothraustes</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).

Name	Notable and Protected Status
Herring Gull (<i>Larus argentatus</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Hobby (<i>Falco subbuteo</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Honey-buzzard (<i>Pernis apivorus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Hoopoe (<i>Upupa epops</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
House Martin (<i>Delichon urbicum</i>)	Red List (Birds of Conservation Concern)
House Sparrow (<i>Passer domesticus</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Iceland Gull (<i>Larus glaucooides</i>)	Amber List (Birds of Conservation Concern).
Kestrel (<i>Falco tinnunculus</i>)	Amber List (Birds of Conservation Concern).
Kingfisher (<i>Alcedo atthis</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Knot (<i>Calidris canutus</i>)	Amber List (Birds of Conservation Concern).
Lapwing (<i>Vanellus vanellus</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Lesser Black-backed Gull (<i>Larus fuscus</i>)	Amber List (Birds of Conservation Concern).
Lesser Redpoll (<i>Acanthis flammea cabaret</i>)	SPIE under S41 of the NERC Act.
Lesser Spotted Woodpecker (<i>Dryobates minor</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Linnet (<i>Linaria cannabina</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Little Gull (<i>Hydrocoloeus minutus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Little Ringed Plover (<i>Charadrius dubius</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Mallard (<i>Anas platyrhynchos</i>)	Amber List (Birds of Conservation Concern).
Marsh Harrier (<i>Circus aeruginosus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).

Name	Notable and Protected Status
Marsh Tit (<i>Poecile palustris</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Meadow Pipit (<i>Anthus pratensis</i>)	Amber List (Birds of Conservation Concern).
Mediterranean Gull (<i>Ichthyaeetus melanocephalus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Merlin (<i>Falco columbarius</i>)	Schedule 1 of the Wildlife and Countryside Act 1981-p1; Red List (Birds of Conservation Concern).
Mistle Thrush (<i>Turdus viscivorus</i>)	Red List (Birds of Conservation Concern).
Moorhen (<i>Gallinula chloropus</i>).	Amber List (Birds of Conservation Concern).
Nightingale (<i>Luscinia megarhynchos</i>)	Red List (Birds of Conservation Concern).
Osprey (<i>Pandion haliaetus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Oystercatcher (<i>Haematopus ostralegus</i>)	Amber List (Birds of Conservation Concern).
Peregrine (<i>Falco peregrinus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981.
Pied Flycatcher (<i>Ficedula hypoleuca</i>)	Amber List (Birds of Conservation Concern).
Pintail (<i>Anas acuta</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Pochard (<i>Aythya ferina</i>)	Red List (Birds of Conservation Concern).
Red Kite (<i>Milvus milvus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Red List (Birds of Conservation Concern).
Red-backed Shrike (<i>Lanius collurio</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Red List (Birds of Conservation Concern).
Red-necked Grebe (<i>Podiceps grisegena</i>)	Red List (Birds of Conservation Concern).
Redshank (<i>Tringa totanus</i>)	Amber List (Birds of Conservation Concern).
Redstart (<i>Phoenicurus phoenicurus</i>)	Amber List (Birds of Conservation Concern).
Redwing (<i>Turdus iliacus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Reed Bunting (<i>Emberiza schoeniclus</i>)	SPIE under S41 of the NERC Act; Amber List (Birds of Conservation Concern).

Name	Notable and Protected Status
Ring Ouzel (<i>Turdus torquatus</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Ringed Plover (<i>Charadrius hiaticula</i>)	Red List (Birds of Conservation Concern), Amber List (Birds of Conservation Concern).
Rook (<i>Corvus frugilegus</i>)	Amber List (Birds of Conservation Concern).
Ruff (<i>Calidris pugnax</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Red List (Birds of Conservation Concern).
Sanderling (<i>Calidris alba</i>)	Amber List (Birds of Conservation Concern).
Scaup (<i>Aythya marila</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Sedge Warbler (<i>Acrocephalus schoenobaenus</i>)	Amber List (Birds of Conservation Concern).
Shelduck (<i>Tadorna tadorna</i>)	Amber List (Birds of Conservation Concern).
Short-eared Owl (<i>Asio flammeus</i>)	Amber List (Birds of Conservation Concern).
Shoveler (<i>Spatula clypeata</i>)	Amber List (Birds of Conservation Concern).
Skylark (<i>Alauda arvensis</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Smew (<i>Mergellus albellus</i>)	Red List (Birds of Conservation Concern).
Snipe (<i>Gallinago gallinago</i>)	Amber List (Birds of Conservation Concern).
Song Thrush (<i>Turdus philomelos</i>)	SPIE under S41 of the NERC Act; Amber List (Birds of Conservation Concern).
Sparrowhawk (<i>Accipiter nisus</i>)	Amber List (Birds of Conservation Concern).
Spotted Flycatcher (<i>Muscicapa striata</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Spotted Redshank (<i>Tringa erythropus</i>)	Amber List (Birds of Conservation Concern).
Starling (<i>Sturnus vulgaris</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern)
Stock Dove (<i>Columba oenas</i>)	Amber List (Birds of Conservation Concern).
Swift (<i>Apus apus</i>)	Red List (Birds of Conservation Concern).

Name	Notable and Protected Status
Tawny Owl (<i>Strix aluco</i>)	Amber List (Birds of Conservation Concern).
Teal (<i>Anas crecca</i>)	Amber List (Birds of Conservation Concern).
Tree Pipit (<i>Anthus trivialis</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Tundra Swan (<i>Cygnus columbianus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Turnstone (<i>Arenaria interpres</i>)	Amber List (Birds of Conservation Concern).
Turtle Dove (<i>Streptopelia turtur</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Water Pipit (<i>Anthus spinoletta</i>)	Amber List (Birds of Conservation Concern).
Wheatear (<i>Oenanthe oenanthe</i>)	Amber List (Birds of Conservation Concern).
Whimbrel (<i>Numenius phaeopus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Red List (Birds of Conservation Concern).
Whinchat (<i>Saxicola rubetra</i>)	Red List (Birds of Conservation Concern).
White-fronted Goose (<i>Anser albifrons</i>)	Red List (Birds of Conservation Concern).
White-tailed Eagle (<i>Haliaeetus albicilla</i>)	Schedule 1 of the Wildlife and Countryside Act 1981-p1; Amber List (Birds of Conservation Concern).
Whitethroat (<i>Curruca communis</i>)	Amber List (Birds of Conservation Concern).
Whooper Swan (<i>Cygnus cygnus</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Wigeon (<i>Mareca penelope</i>)	Amber List (Birds of Conservation Concern).
Willow Warbler (<i>Phylloscopus trochilus</i>)	Amber List (Birds of Conservation Concern).
Wood Sandpiper (<i>Tringa glareola</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; Amber List (Birds of Conservation Concern).
Woodcock (<i>Scolopax rusticola</i>)	Red List (Birds of Conservation Concern).
Woodlark (<i>Lullula arborea</i>)	Schedule 1 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act
Woodpigeon (<i>Columba palumbus</i>)	Amber List (Birds of Conservation Concern).

Name	Notable and Protected Status
Wren (<i>Troglodytes troglodytes</i>)	Amber List (Birds of Conservation Concern).
Yellow Wagtail (<i>Motacilla flava</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Yellow Wagtail (<i>Motacilla flava flavissima</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Yellow-browed Warbler (<i>Phylloscopus inornatus</i>)	Amber List (Birds of Conservation Concern).
Yellow-legged Gull (<i>Larus michahellis</i>)	Amber List (Birds of Conservation Concern).
Yellowhammer (<i>Emberiza citrinella</i>)	SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).

Mammals

Barbastelle (<i>Barbastella barbastellus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Brown Long-eared Bat (<i>Plecotus auritus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act.
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981.
Daubenton's Bat (<i>Myotis daubentonii</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981.
Leisler's Bat (<i>Nyctalus leisleri</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981. Red List (Birds of Conservation Concern).
Long-eared Bat species (<i>Plecotus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Myotis Bat species (<i>Myotis</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5

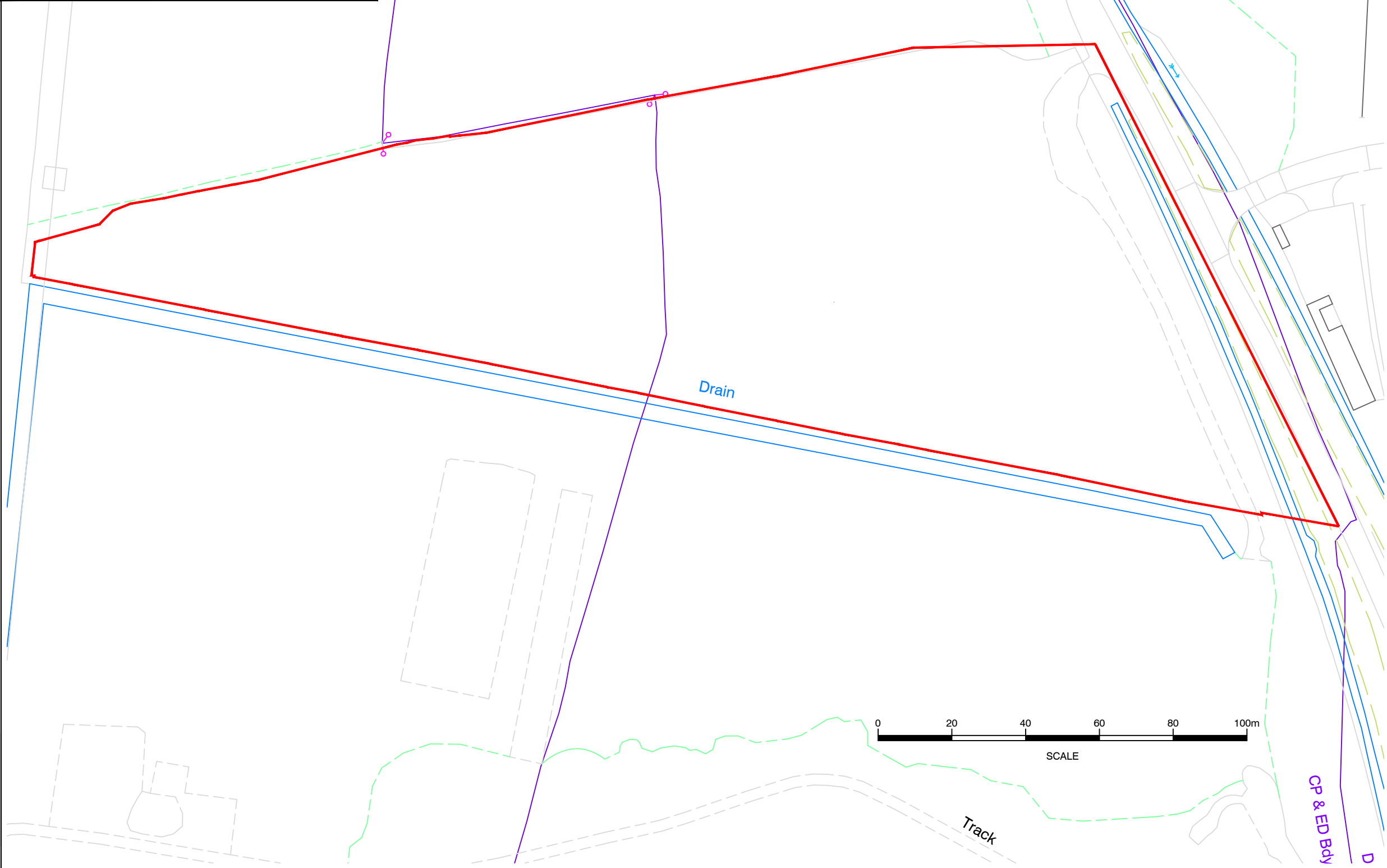
Name	Notable and Protected Status
	of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Nathusius's Pipistrelle (<i>Pipistrellus nathusii</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981. Red List (Birds of Conservation Concern).
Noctule (<i>Nyctalus noctula</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act.
Nyctalus Bat species (<i>Nyctalus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Pipistrelle (<i>Pipistrellus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Serotine (<i>Eptesicus serotinus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; Red List (Birds of Conservation Concern).
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act.
Badger (<i>Meles meles</i>)	Protection of Badgers Act 1992.
Brown Hare (<i>Lepus europaeus</i>)	Section 41 of the Natural Environment and Rural Communities Act 2006
Harvest Mouse (<i>Micromys minutus</i>)	SPIE under Section 41 of the NERC Act.
Hazel Dormouse (<i>Muscardinus avellanarius</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act;

Name	Notable and Protected Status
Hedgehog (<i>Erinaceus europaeus</i>)	Schedule 6 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Otter (<i>Lutra lutra</i>)	Schedule 2 of The Conservation of Habitats and Species Regulations 2017 (amended); Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).
Water Vole (<i>Arvicola amphibius</i>)	Schedule 5 of the Wildlife and Countryside Act 1981; SPIE under S41 of the NERC Act; Red List (Birds of Conservation Concern).

Appendix C

Site Location and Boundary

Figure 1 - Site Location and Survey Area



LEGEND:

SURVEY AREA

LOCAL AUTHORITY BOUNDARY

NOTES:
© Crown copyright and database rights 2025 Ordnance Survey AC0000808122
All entities shown on this drawing are to be regarded as approximate and are indicative only. No measurements taken from this drawing should be used for the location of intrusive investigation works on site. Symbols for boreholes, trial pits and other specific features are representations of location only and unless otherwise specified, do not represent the true size of the feature. Contact ARCADIS UK in case of any query.

1	10/07/2026	FIRST ISSUED	BNB		
Rev	Date	Description	Drawn	Check	Approv

PROJECT:
LAND OFF KIRTON'S
FARM ROAD, READING

Site
LAND OFF KIRTON'S FARM ROAD
READING

Client
MAG REAL ESTATE
10 FENCHURCH AVENUE
LONDON
EC3M 5AG

Registered office:
80Fen
80 Fenchurch Street
London
EC3M 4BY

Coordinating office:
Office 107, WeiWork
50-60 Station Road
Cambridge
CB1 2JH

www.arcadis.com

TITLE:

SURVEY AREA

Designed		Date	Signed
Drawn	B. Brinkman	Date 10/07/2026	Signed
Checked		Date	Signed
Approved		Date	Signed
Scale:		Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	S2	Project Number:	30280066

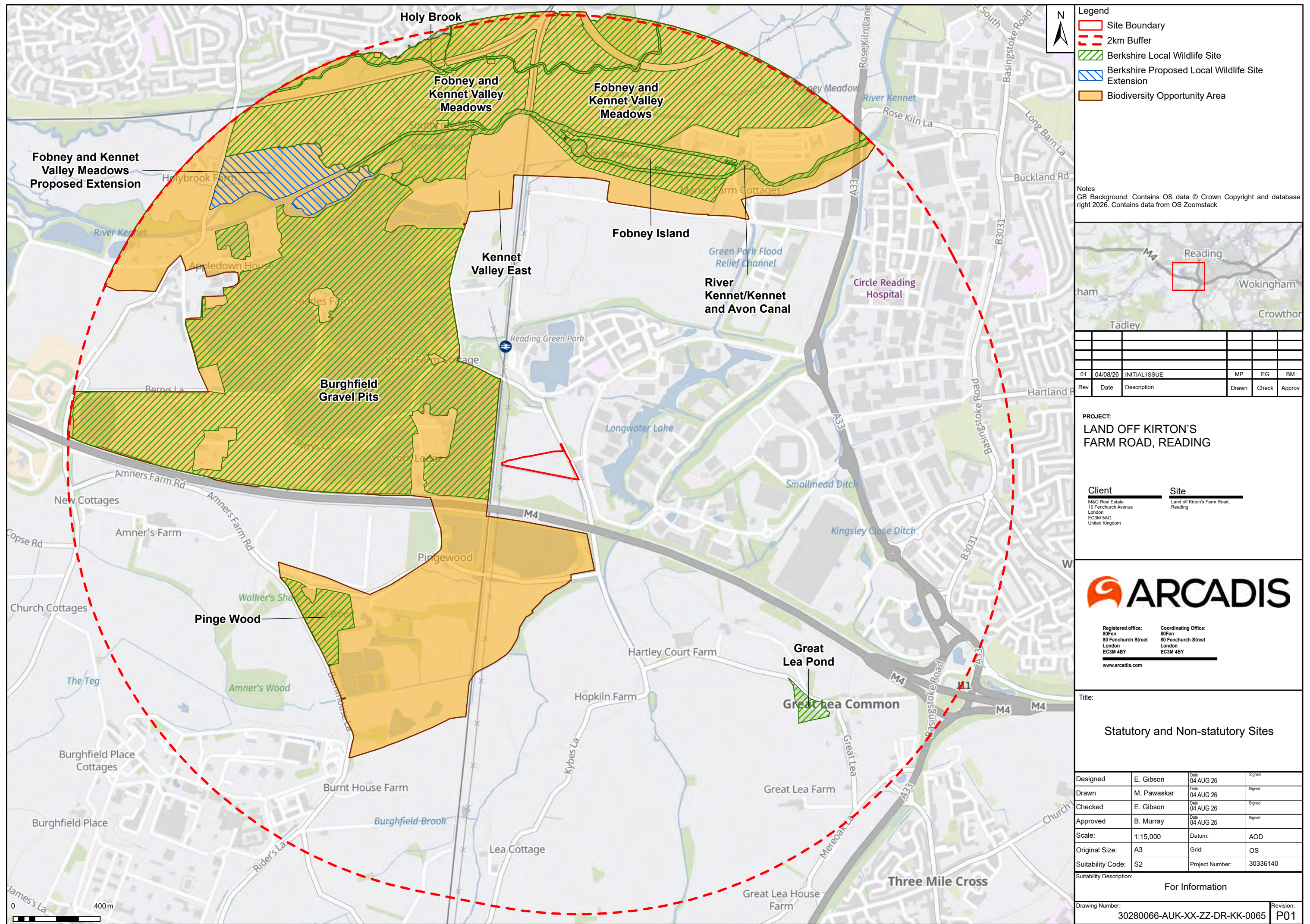
Suitability Description:
For Information

Drawing Number: 30280066-AUK-XX-ZZ-DR-ZZ-0057-P001	Revision: 1
---	----------------

Appendix D

Statutory and Non-statutory Sites

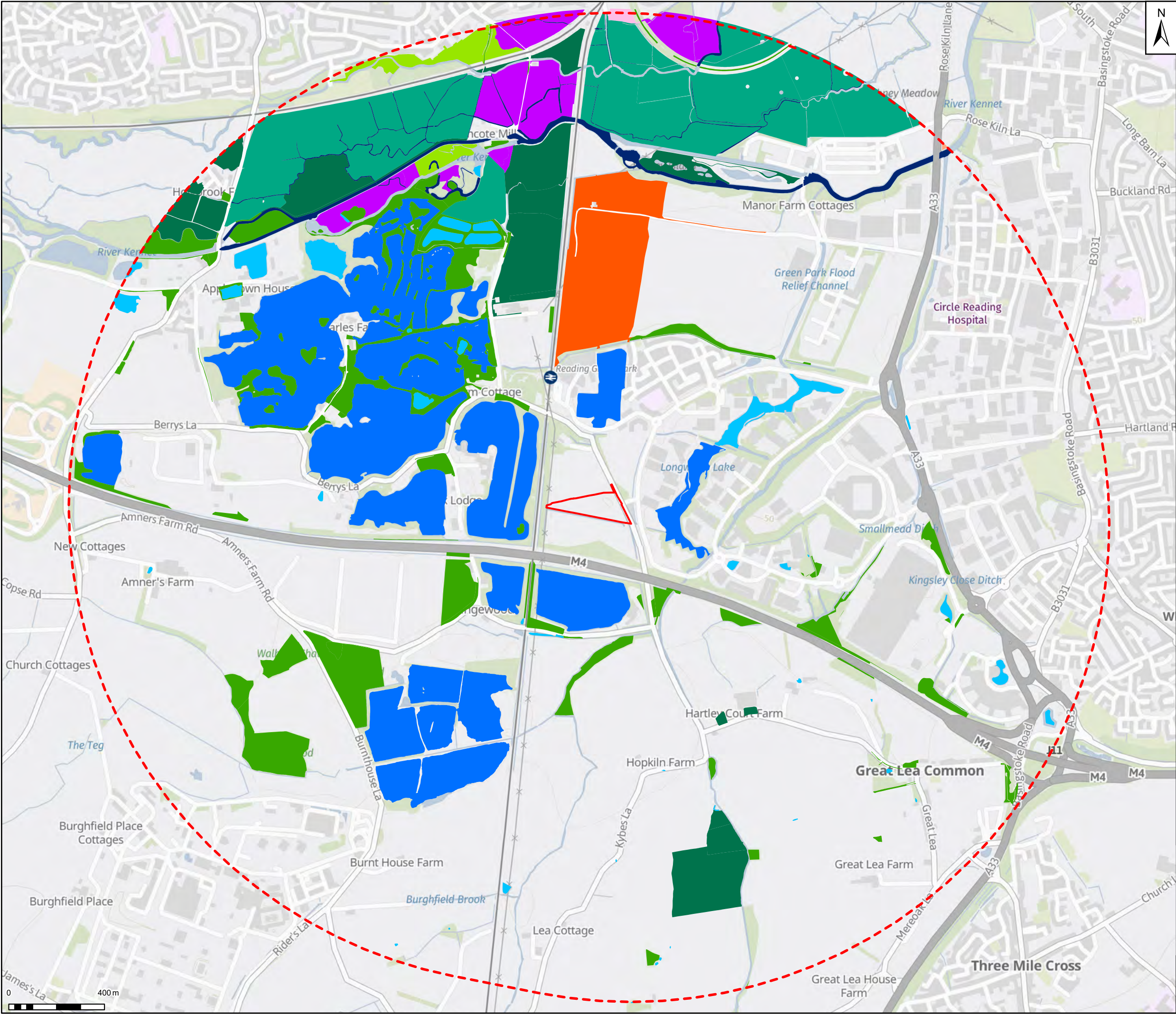
Figure 2 - Statutory and non-statutory designated sites within 2km of the Site



Appendix E

Habitats of Principal Importance

Figure 3 - Habitats of Principal Importance within 2km of the Site



N

Site Boundary

2km Buffer

Habitats

Lowland fens

Reedbeds

Open mosaic habitats on previously developed land

Lowland meadows

Coastal and floodplain grazing marsh

Wood-pasture and parkland

Eutrophic standing waters

Ponds

Rivers and streams

Wet woodland

Lowland mixed deciduous woodland

Notes : GB Background: Contains OS data © Crown Copyright and database right 2026.

Contains data from OS Zoomstack



01	04/08/26	INITIAL ISSUE	MP	EG	BM
Rev	Date	Description	Drawn	Check	Approv

PROJECT:

LAND OFF KIRTON'S FARM ROAD, READING

Client

Site

M&G Real Estate
10 Fenchurch Avenue
London
EC3M 5AG
United Kingdom

Land off Kirton's Farm Road,
Reading

Registered office:
80Fen
80 Fenchurch Street
London
EC3M 4BY

Coordinating Office:
80Fen
80 Fenchurch Street
London
EC3M 4BY

www.arcadis.com

Title:

Habitats of Principal Importance

Designed	E. Gibson	Date	04 AUG 26	Signed	
Drawn	M. Pawaskar	Date	04 AUG 26	Signed	
Checked	E. Gibson	Date	04 AUG 26	Signed	
Approved	B. Murray	Date	04 AUG 26	Signed	
Scale:	1:15,000	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	S2	Project Number:	30336140		

Suitability Description:

For Information

Drawing Number:

30280066-AUK-XX-ZZ-DR-KK-0066

Revision:

P01

Appendix F

UK Habitat Map

Figure 4 - Habitat map of the Site



N

Legend

Site Boundary

Extent of Proposed Restoration Activities

Specific Habitat Type

Target Note

Mixed scrub

Other neutral grassland

Other woodland; broadleaved

Ruderal/Ephemeral

Tall forbs

Notes

Extent of Proposed Restoration Activities:
GB Background: Contains OS data © Crown Copyright and database right 2026. Contains data from OS Zoomstack

01	04/08/26	INITIAL ISSUE	MP	EG	BM
Rev	Date	Description	Drawn	Check	Approv

PROJECT:

LAND OFF KIRTON'S FARM ROAD, READING

Client

M&G Real Estate
10 Fenchurch Avenue
London
EC3M 5AG
United Kingdom

Site

Land off Kirton's Farm Road,
Reading

Registered office:
80Fen
80 Fenchurch Street
London
EC3M 4BY

Coordinating Office:
80Fen
80 Fenchurch Street
London
EC3M 4BY

www.arcadis.com

Title:

UK Habitat Map

Designed	E. Gibson	Date	04 AUG 26	Signed	
Drawn	M. Pawaskar	Date	04 AUG 26	Signed	
Checked	E. Gibson	Date	04 AUG 26	Signed	
Approved	B. Murray	Date	04 AUG 26	Signed	
Scale:	1:1,500	Datum:	AOD		
Original Size:	A3	Grid:	OS		
Suitability Code:	S2	Project Number:	30336140		

Suitability Description:

For Information

Drawing Number:

30280066-AUK-XX-ZZ-DR-KK-0064

Revision:

P01

Appendix G

Photographs

No.	Description	
1	Area of other broadleaved woodland (WD1) located in the northeast corner of the Site.	
2	Area of mixed scrub (MS1) on the eastern boundary of the Site.	

No.	Description	
3	Area of other neutral grassland (G1) forming the primary habitat within the Site facing east.	
4	Area of other neutral grassland (G1) forming the primary habitat within the Site facing west.	

No.	Description	
5	An area of sparsely vegetated land - ruderal/ephemeral comprising low lying forbs (ESP1) was recorded in the east of the Site	
6	Area of sparsely vegetated land - tall forbs (TR1) located in the east of the Site.	

Appendix H

Relevant Ecological Legislation

Ecological Constraint	Relevant Legislation	Details
Designated Nature Conservation Sites	The Conservation of Habitats and Species Regulations 2017 (HM Government, 2017) National Parks and Access to the Countryside Act 1949 (HM Government, 1949) Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981) Countryside and Rights of Way Act 2000 (HM Government, 2000) Natural Environment and Rural Communities Act 2006 (HM Government, 2006)	A Habitats Regulations Assessment (HRA) is required whenever a development has the potential to impact upon a European protected site, or Ramsar site. Assent from Natural England is required for any works within a SSSI. Public bodies are not allowed to carry out damaging operations on an SSSI, except where they notify the relevant conservation agency (Natural England). It is also an offence for a public body to fail to minimise damage done to an SSSI, or, if damage occurs, to fail to restore an SSSI to its former state. The relevant authority should be consulted regarding works in or near a National Nature Reserve (NNR), Local Nature Reserve, Local Wildlife Site, or Protected Road Verge.
Habitats	Berkshire Local Nature Recovery Strategy (Berkshire Nature Recovery, 2025) Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020) National Planning Policy Framework (HM Government, 2026)	Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of habitats that are of principal importance for the conservation of biodiversity in England, and to take, and promote others to take, such steps to further the conservation of these habitats. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These habitats will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment. Chapter 19 (N1) of the National Planning Policy Framework (NPPF) states that development plans should safeguard and enhance the natural environment, and reflect the wider benefits from natural capital and ecosystems by using Local Nature Recovery Strategies, Protected Landscape Management Plans, River Basin Management Plans, National Forest Strategies, Community Forest Plans and other relevant evidence at the most appropriate level to: - Set out the hierarchy of international, national and locally designated sites and areas of importance for their landscape, geodiversity or biodiversity value in the plan area, and identify other features which require particular consideration in managing development due to their environmental value such as chalk streams; - Identify opportunities for the conservation, enhancement and recovery of landscapes, sensitive waterbodies, habitats and priority or threatened

Ecological Constraint	Relevant Legislation	Details
		species, including through habitat restoration, the use of nature-based solutions, and the creation and strengthening of ecological networks that are more resilient to current and future pressures (including opportunities which exist at a catchment or landscape scale across plan boundaries). Chapter 19 (N2) (1) of the NPPF states that to contribute positively to the natural environment, and support the nature's recovery, development proposals should (f) minimise any adverse impacts on biodiversity and include features which support priority or threatened species.
Invasive non-native species	Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981)	Section 14 of the Wildlife and Countryside Act 1981 (as amended) makes it illegal to release, allow to escape, plant, or otherwise cause to grow in the wild any animal or plant listed in Schedule 9 of the Act.
Invertebrates	Natural Environment and Rural Communities Act (HM Government, 2006). Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020)	Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity, and to take, and promote others to take, such steps to further the conservation of these species in England. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment.
Amphibians	The Conservation of Habitats and Species Regulations 2017 (HM Government, 2017) Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981) Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020)	It is an offence to deliberately kill or injure a European protected species, to destroy breeding/resting sites, or to deliberately disturb these species and affect their ability to survive, rear young, breed, or hibernate. It is an offence to kill, injure, capture, to intentionally or recklessly disturb a species listed on Schedule 5 of the Wildlife and Countryside Act 1981 (amended) whilst it is in a place of shelter, or to intentionally or recklessly obstruct access to a place of shelter. Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity in England, and to take, and promote others to take, such steps to further the conservation of these species. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment.

Ecological Constraint	Relevant Legislation	Details
Reptiles	Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981) Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020)	It is an offence to kill, injure, capture, to intentionally or recklessly disturb a species listed on Schedule 5 of the Wildlife and Countryside Act 1981 whilst it is in a place of shelter, or to intentionally or recklessly obstruct access to a place of shelter. Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity in England, and to take, and promote others to take, such steps to further the conservation of these species. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment.
Birds	Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981) Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020)	It is an offence to damage or destroy a wild bird's nest whilst it is in use, and to kill or injure a wild bird or destroy a wild bird's egg. For some species, their nests are protected year-round whether in use or not, and it is also an offence to disturb these species while they are nesting or to disturb their dependant young. Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity in England, and to take, and promote others to take, such steps to further the conservation of these species. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment.
Bats	The Conservation of Habitats and Species Regulations 2017 (HM Government, 2017) Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981) Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020) Wild Mammals (Protection) Act 1996 (HM Government, 1996)	It is an offence to deliberately kill or injure a European protected species, to destroy breeding/resting sites, or to deliberately disturb these species and affect their ability to survive, rear young, breed, or hibernate. It is an offence to kill, injure, capture, to intentionally or recklessly disturb a species listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) whilst it is in a place of shelter, or to intentionally or recklessly obstruct access to a place of shelter. Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity, and to take, and promote others to take, such steps to further the conservation of these species. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by

Ecological Constraint	Relevant Legislation	Details
		Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment. It is an offence to inflict unnecessary suffering to any wild mammal with intent.
Badger	Protection of Badgers Act 1992 (HM Government, 1992) Wild Mammals (Protection) Act 1996 (HM Government, 1996)	It is an offence to damage or destroy a badger sett; obstruct any entrance of a badger sett; or disturb a badger whilst it is occupying a badger sett. It is an offence under to inflict unnecessary suffering to any wild mammal with intent.
Otter	The Conservation of Habitats and Species Regulations 2017 (as amended) (HM Government, 2017) Wildlife and Countryside Act 1981 (as amended) Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020) Wild Mammals (Protection) Act 1996 (HM Government, 1996)	It is an offence to deliberately kill or injure a European protected species, to destroy breeding/resting sites, or to deliberately disturb these species and affect their ability to survive, rear young, breed, or hibernate. It is an offence to kill, injure, capture, to intentionally or recklessly disturb a species listed on Schedule 5 of the Wildlife and Countryside Act 1981 whilst it is in a place of shelter, or to intentionally or recklessly obstruct access to a place of shelter. Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity, and to take, and promote others to take, such steps to further the conservation of these species. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment. It is an offence to inflict unnecessary suffering to any wild mammal with intent.
Water vole	Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981) Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020) Wild Mammals (Protection) Act 1996 (HM Government, 1996)	It is an offence to kill, injure, capture, to intentionally or recklessly disturb a species listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) whilst it is in a place of shelter, or to intentionally or recklessly obstruct access to a place of shelter. Section 41 of the Natural Environment and Rural Communities Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity in England, and to take, and promote others to take, such steps to further the conservation of these species. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment. It is an offence to inflict unnecessary suffering to any wild mammal with intent.

Ecological Constraint	Relevant Legislation	Details
Hedgehog Brown hare Polecat Harvest mouse	Natural Environment and Rural Communities Act 2006 (HM Government, 2006) Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services (DEFRA, 2020) Wild Mammals (Protection) Act 1996 (HM Government, 1996)	Section 41 of the NERC Act 2006 requires the Secretary of State to publish a list of species that are of principal importance for the conservation of biodiversity in England, and to take, and promote others to take, such steps to further the conservation of these species. These are listed in 'Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services'. These species will be considered by Planning Authorities in regard to the National Planning Policy Framework to conserve and enhance the natural environment. It is an offence to inflict unnecessary suffering to any wild mammal with intent.

Appendix I

Habitat Condition Assessments

Condition Sheet: WOODLAND Habitat Type

Habitat Description			
An area of other broadleaved woodland located on the northeast of the Site containing a range of age and size classes of trees. The canopy layer comprised occasional Ash (<i>Fraxinus excelsior</i>), English Elm (<i>Ulmus procera</i>), Hazel (<i>Corylus avellana</i>) Alder (<i>Alnus glutinosa</i>) and Field Maple (<i>Acer campestre</i>). The shrub layer comprised occasional Rose (<i>Rosa</i> sp.), Hawthorn (<i>Crataegus monogyna</i>), Common Nettle (<i>Urtica dioica</i>), Deadly Nightshade (<i>Atropa belladonna</i>), Common Ivy (<i>Hedera helix</i>) and Blackthorn (<i>Prunus spinosa</i>).			
ukhab – UK Habitat Classification			
This condition sheet is based on the England Woodland Biodiversity Group (EWBG) Woodland Condition Survey Method, available here: Woodland Wildlife Toolkit (sylva.org.uk)			
IMPORTANT: This biodiversity metric woodland condition assessment must be used to assess woodland being input into the biodiversity metric. The outputs of this condition assessment are not equivalent to, nor are they comparable with the scores from the EWBG condition assessment, because the EWBG assessment has been adapted for the biodiversity metric, including the removal of EWBG Indicator 7 (Proportion of favourable land cover around woodland) and Indicator 14 (Size of woodland), and minor changes to other indicators.			
On-site or off-site, site name and location	On-site; Land at Kirtons Farm Road, Reading (RG2 6GF).	Survey date and Surveyor name	29th May 2026; Warren Packer BSc (Hons) MSc MCIEEM
Limitations (if applicable)	None noted.	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 69721 69762	Habitat parcel reference	WD1
Condition Assessment Criteria			

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
A	Age distribution of trees	Three age-classes ¹ present.	Two age-classes ¹ present.	One age-class ¹ present.	3	

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
B	Wild, domestic and feral herbivore damage	No significant browsing damage evident in woodland ² .	Evidence of significant browsing pressure is present in less than 40% of whole woodland ² .	Evidence of significant browsing pressure is present in 40% or more of whole woodland ² .	3	
C	Invasive plant species	No invasive species ³ present in woodland.	Rhododendron <i>Rhododendron ponticum</i> or cherry laurel <i>Prunus laurocerasus</i> not present, and other invasive species ³ <10% cover.	Rhododendron or cherry laurel present, or other invasive species ³ ≥10% cover.	3	
D	Number of native tree species	Five or more native tree or shrub species ⁴ found across woodland parcel.	Three to four native tree or shrub species ⁴ found across woodland parcel.	Two or less native tree or shrub species ⁴ across woodland parcel.	3	
E	Cover of native tree and shrub species	>80% of canopy trees and >80% of understory shrubs are native ⁵ .	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native ⁵ .	<50% of canopy trees and <50% of understory shrubs are native ⁵ .	3	

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
F	Open space within woodland	10 - 20% of woodland has areas of temporary open space ⁶ . Unless woodland is <10ha, in which case 0 - 20% temporary open space is permitted ⁷ .	21 - 40% of woodland has areas of temporary open space ⁶ .	<10% or >40% of woodland has areas of temporary open space ⁶ . But if woodland <10ha has <10% temporary open space, please see Good category ⁷ .	1	
G	Woodland regeneration	All three classes present in woodland ⁸ ; trees 4 - 7 cm Diameter at Breast Height (DBH), saplings and seedlings or advanced coppice regrowth.	One or two classes only present in woodland ⁸ .	No classes or coppice regrowth present in woodland ⁸ .	2	
H	Tree health	Tree mortality 10% or less, no pests or diseases and no crown dieback ⁹ .	11% to 25% tree mortality and or crown dieback or low-risk pest or disease present ⁹ .	Greater than 25% tree mortality and or any high-risk pest or disease present ⁹ .	3	
I	Vegetation and ground flora	Recognisable NVC plant community ¹⁰ at ground layer present, strongly characterised by ancient woodland flora specialists.	Recognisable woodland NVC plant community ¹⁰ at ground layer present.	No recognisable woodland NVC plant community ¹⁰ at ground layer present.	1	
J	Woodland vertical structure	Three or more storeys across all survey plots, or a complex woodland ¹¹ .	Two storeys across all survey plots ¹¹ .	One or less storey across all survey plots ¹¹ .	1	

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
K	Veteran trees	Two or more veteran trees ¹² per hectare.	One veteran tree ¹² per hectare.	No veteran trees ¹² present in woodland.	1	
L	Amount of deadwood	50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, branch stubs and stumps, or an abundance of small cavities ¹³ .	Between 25% and 50% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .	Less than 25% of all survey plots within the woodland parcel have deadwood, such as standing and fallen deadwood, large dead branches and or stems, stubs and stumps, or an abundance of small cavities ¹³ .	1	
M	Woodland disturbance	No nutrient enrichment or damaged ground evident ¹⁴ .	Less than 1 hectare in total of nutrient enrichment across woodland area, and or less than 20% of woodland area has damaged ground ¹⁴ .	1 hectare or more of nutrient enrichment, and or 20% or more of woodland area has damaged ground ¹⁴ .	3	
Total Score (out of a possible 39)					28	
Condition Assessment Result				Condition Assessment Score		Result Achieved
Total score >32 (33 to 39)				Good (3)		28 (Moderate)
Total score 26 to 32				Moderate (2)		

Indicator		Good (3 points)	Moderate (2 points)	Poor (1 point)	Score per indicator	Notes (such as justification)
Total score <26 (13 to 25)				Poor (1)		

Condition Sheet: Scrub Habitat Type



Habitat Description			
There is an area of mixed scrub located on the eastern border of the Site. The area was quite dense in places and contained a range of native scrub and young trees species. The parcel contained abundant Bramble (<i>Rubus fruticosus</i> agg.) along with frequent Ash (<i>Fraxinus excelsior</i>), Hazel (<i>Corylus avellana</i>) and Grey Willow (<i>Salix cinerea</i>). Species recorded occasionally within the parcel comprise a Rose species (<i>Rosa</i> Sp.), Dog-rose (<i>Rosa canina</i>), and Hawthorn (<i>Crataegus monogyna</i>).			
For Dunes with sea buckthorn see:	Dunes with sea-buckthorn (Dunes with <i>Hippophae rhamnoides</i>) - Special Areas of Conservation (jncc.gov.uk)		
For other scrub types see:	ukhab – UK Habitat Classification		
On-site or off-site, site name and location	On-site; Land at Kirtons Farm Road, Reading (RG2 6GF).	Survey date and Surveyor name	29th May 2026; Warren Packer BSc (Hons) MSc MCIEEM
Limitations (if applicable)	Parcel was extremely dense in places therefore a thorough assessment of the parcel could not be made.	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 69823 69707	Habitat parcel reference	MS1

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type - the appearance and composition of the vegetation closely matches its UKHab description (where in its natural range).¹ - At least 80% of scrub is native, - There are at least three native woody species², - No single species comprises more than 75% of the cover (except hazel <i>Corylus avellana</i>, common juniper <i>Juniperus communis</i>, sea buckthorn <i>Hippophae rhamnoides</i> (only in its restricted native range), or box <i>Buxus sempervirens</i>, which can be up to 100% cover).	Yes	
B	Seedlings, saplings, young shrubs and mature (or ancient or veteran ³) shrubs are all present.	Yes	
C	There is an absence of invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) and species indicative of suboptimal condition ⁶ make up less than 5% of ground cover.	Yes	
D	The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat.	Yes	
E	There are clearings, glades or rides present within the scrub, providing sheltered edges.	No	

Number of criteria passed			4
Condition Assessment Result (out of 5 criteria)	Condition Assessment Score	Score Achieved	
Passes 5 criteria	Good (3)		
Passes 3 or 4 criteria	Moderate (2)	Yes	
Passes 2 or fewer criteria	Poor (1)		

Condition Sheet: GRASSLAND Habitat Type

On-site or off-site, site name and location	On-site; Land at Kirtons Farm Road, Reading (RG2 6GF).	Survey date and Surveyor name	29th May 2026; Warren Packer BSc (Hons) MSc MCIEEM
Limitations (if applicable)	No limitations noted.	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU696697	Habitat parcel reference	G1
Habitat Description			
An area of other neutral grassland which constituted the primary habitat within the Site. The grassland was unmanaged with a maximum sward height of around 0.5m which was interspersed with areas of bare ground. The parcel had significant scattered Bramble scrub encroachment in places. The parcel contained abundant Yellow Oat-grass (<i>Trisetum flavescens</i>), Rough Meadow-grass (<i>Poa trivialis</i>) along with occasional Curled Dock (<i>Rumex crispus</i>), Creeping Thistle (<i>Cirsium arvense</i>), White Campion (<i>Silene latifolia</i>), Cock's-foot (<i>Dactylus glomerata</i>), Cleavers (<i>Galium aparine</i>), Scentless Mayweed (<i>Tripleurospermum inodorum</i>), Meadow Vetchling (<i>Lathyrus pratensis</i>), Lesser Burdock (<i>Arctium minus</i>), Hard Rush (<i>Juncus inflexus</i>), Creeping Buttercup (<i>Ranunculus repens</i>) and Tufted Vetch (<i>Vicia cracca</i>). Barren Brome (<i>Anisantha sterilis</i>) was recorded frequently within the parcel and species recorded rarely consisted of Common Vetch (<i>Vicia sativa</i>) and Black Medick (<i>Medicago lupulina</i>). Japanese Knotweed (<i>Fallopia japonica</i>) was present within the northern boundary of the parcel.			
ukhab – UK Habitat Classification - - -			

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type (and relative to Footnote 3 suboptimal species which may be listed in the UKHab description). ¹ Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.	Yes	
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes	
C	Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens ² .	No	
D	Cover of bracken <i>Pteridium aquilinum</i> is less than 20% and cover of scrub (including bramble <i>Rubus fruticosus</i> agg.) is less than 5%.	Yes	
E	Combined cover of species indicative of suboptimal condition ³ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area. If any invasive non-native plant species ⁴ (as listed on Schedule 9 of WCA ⁵) are present, this criterion is automatically failed.	No	Japanese Knotweed recorded present within the northern boundary of this parcel

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Additional Criterion - must be assessed for all non-acid grassland types			
F	There are 10 or more vascular plant species per m ² present, including forbs that are characteristic of the habitat type (species referenced in Footnote 3 and 5 cannot contribute towards this count). Note - this criterion is essential for achieving Good condition for non-acid grassland types only.	No	
Essential criterion for Good condition achieved (for non-acid grassland) (Yes or No)		No	
Number of criteria passed		3	

Condition Sheet: URBAN Habitat Type (Sparsely Vegetated Land - Ruderal/Ephemeral)

Habitat Description			
An area of sparsely vegetated land comprising low lying ephemeral forbs was recorded in the east of the Site. The habitat appeared unmanaged with some scattered scrub encroachment and had a maximum sward height of around 100mm. The parcel contained occasional Creeping Cinquefoil (<i>Potentilla reptans</i> L.), Bristly Oxtongue (<i>Helminthotheca echinoides</i>), Bramble (<i>Rubus fruticosus</i> agg), Common Nettle (<i>Urtica dioica</i>), a Rose (<i>Rosa</i> Sp.), Creeping Thistle (<i>Cirsium arvense</i>), a Crane's-bill (<i>Geranium</i> Sp.) species, Lesser Burdock (<i>Arctium minus</i>) and Hard Rush (<i>Juncus inflexus</i>). Cut-leaved Crane's-bill (<i>Geranium dissectum</i>) and a Hawkbit (<i>Leontodon</i> Sp.) species was recorded rarely within the parcel.			
See the Statutory Biodiversity Metric User Guide for green roofs and UK Habitat Classification (UKHab) for other habitats:			UKHab – UK Habitat Classification
On-site or off-site, site name and location	On-site; Land at Kirtons Farm Road, Reading (RG2 6GF).	Survey date and Surveyor name	29th May 2026; Warren Packer BSc (Hons) MSc MCIEEM
Limitations (if applicable)	No limitations noted.	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 69818 69692	Habitat parcel reference	ESP1

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all urban habitat types :			
A	Vegetation structure is varied, providing opportunities for vertebrates and invertebrates to live, eat and breed. A single structural habitat component or vegetation type does not account for more than 80% of the total habitat area.	Yes	
B	The habitat parcel contains different plant species that are beneficial for wildlife, for example flowering species providing nectar sources for a range of invertebrates at different times of year.	Yes	
C	Invasive non-native plant species (listed on Schedule 9 of WCA¹) and others which are to the detriment of native wildlife (using professional judgement)² cover less than 5% of the total vegetated area³. Note - to achieve Good condition, this criterion must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	Yes	

Condition Sheet: SPARSELY VEGETATED LAND Habitat Type (Sparsely Vegetated Land – Tall Forbs)

Habitat Description			
There were two areas (approximately 0.5ha combined) containing a similar species diversity and abundance of tall forbs vegetation located interspersed within the grassland. These parcels had a sward height of approximately 1m and contained abundant Hemlock, Creeping Thistle along with frequent Common Nettle. Species occasionally recorded within these parcels comprised Lesser Burdock, Broad-leaved Dock, Soft Brome, Cleavers, Bristly Oxtongue and Bramble.			
ukhab – UK Habitat Classification			UKHab – UK Habitat Classification
On-site or off-site, site name and location	On-site; Land at Kirtons Farm Road, Reading (RG2 6GF).	Survey date and Surveyor name	29th May 2026; Warren Packer BSc (Hons) MSc MCIEEM
Limitations (if applicable)	No limitations noted.	Survey reference (if relating to a wider survey)	N/A
Grid reference	SU 69818 69692	Habitat parcel reference	TR1 & TR2

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all urban habitat types :			
A	The parcel represents a good example of its specific sparsely vegetated habitat type - the appearance and composition of the vegetation closely matches its UKHab description, with characteristic indicator species consistently present.	Yes	
B	The cover of bracken <i>Pteridium aquilinum</i> , scrub and trees is less than 25%.	Yes	

Condition Assessment Criteria		Criterion passed (Yes or No)	Notes (such as justification)
Core Criteria - must be assessed for all urban habitat types :			
C	There is an absence of invasive non-native plant species ² (as listed on Schedule 9 of WCA3) and species indicative of suboptimal condition ⁴ make up less than 5% of vegetated ground cover.	Yes	
D	Vegetation cover of vascular and non-vascular plants is between 5 and 50%.	Yes	

Arcadis (UK) Limited

Suite 1a
4 Piccadilly Place
Manchester
M1 3BN
UK

T: +44 (0)117 372 1200

[arcadis.com](https://www.arcadis.com)