

EADE ROAD

PRELIMINARY ECOLOGICAL APPRAISAL





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EXECUTIVE SUMMARY

- RPS were commissioned by Thames Water to undertake a Preliminary Ecological Appraisal (PEA) of an area of land off of Eade road, N4 1DJ. This comprised a desk study, Phase 1 Habitat Survey and an ecological scoping survey, which assessed the potential of the site to support species of conservation concern or other species which could present a constraint to the development of the site.
- The proposals involve isolating and draining the river between Green Road and Seven Sisters Road to
 excavate the silt and existing river lining. The river is due to be relined and the northern side of the site
 will potentially be used as a haul road, requiring the topsoil to be stripped. Currently, the works are
 expected to take place during the summer of 2023.
- The site is approximately 2.93 ha in size and comprises a long, thin area between two bridges (Green Road and Seven Sisters Road) next to a man-made river (New River). The site is split into two (northern and southern sections) by the river; the northern section being the largest and comprising mainly modified grassland, and the southern section comprising mostly of a public footpath (New River Path). The site is close to several areas of residential housing and flats, with Eade Road to the north and a road on both the west (Green Road, A105) and the east (Seven Sisters Road, A503) of the site. Near the southern edge of the site is a school (Skinner's Academy and Woodberry Down Community Primary School) as well as some commercial properties.
- There are four statutory and thirty-two non-statutory sites within 2km of the site. The closest statutory site is Railway Fields, Green Lanes, which is 0.37km from the site, and the closest non-statutory site is New River Site, within the site.
- The development has the potential to affect Woodberry Wetlands Nature Reserve, Finsbury Park, Stoke Newington Reservoirs, Railway Fields Local Nature Reserve and Tottenham Railsides, given their connection to the site via New River. Mitigation will depend on the results of otter and water vole surveys, as well as the duration of time the river is out of service. To further reduce the impact of the development, it is suggested that works be done in the winter.
- The site contains two UK Biodiversity Action Plan (BAP) habitats: a river and reedbeds. The reedbeds
 will be removed as part of the desilting process on the riverbed and will require replanting after works
 are completed.
- Japanese knotweed, Russian vine, Virginia creeper, butterfly bush, hedge and greater bindweed were all identified on site. Japanese knotweed and Virginia creeper are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), and a suitable eradication strategy should be implemented to ensure these species are not spread throughout the works. Hedge and greater bindweed, along with Russian Vine and butterfly bush are invasive species that should be removed where possible to ensure that the habitat does not become overrun, and care should be taken to ensure it does not spread through the water system.
- Should deadwood need to be moved during the works, it should be translocated with care and ideally
 to another area on site to ensure any protected invertebrates are not harmed.
- Vegetation removal will require checks for nesting birds, reptiles and dormice, and be carried out by a suitably trained ecologist no more than 24 hours before removal. Should any trees and buildings require removal, suitable surveys for both bats and nesting birds should be undertaken.



- Notwithstanding the results of bat activity surveys, a sensitive lighting scheme should be used both during construction and post-development, to encourage commuting / foraging bats to use the habitats retained and created on site.
- Should water voles be identified during surveys, translocation to another section of the river will be
 necessary immediately before the river is sectioned off for removal. General good practice guidelines
 should be followed during construction, including the use of spill kits to prevent pollution and ramps to
 provide easy access away from ongoing construction for small mammals.
- Recommendations and mitigation proportionate to the proposed development includes the timing of removal of buildings and habitats on site, including pre-checks by fully competent ecologists if ecologically sensitive periods are not avoidable.
- The development of a new river section allows for enhancements pertaining to water voles including sloped embankments and buffer habitats provided through appropriate management of the grassland and scrub habitats on site. Such enhancements will also benefit other mammals, reptiles and amphibians and invertebrates.
- No protected species of plants were found on site, though many were any recorded within 2km of the site within the last ten years. Common Darter was identified during the ecology scoping survey and has also been recorded within 106m of the site midpoint, as well as the Stag Beetle, for which there is suitable habitat on site. Other protected invertebrates including butterflies and moths, beetles, flies and bees have also been recorded within 2km of the site midpoint. Ramshorn Snail has been recorded within 1.82km of the site mid-point. Common Frog and Common Toad were recorded within 2km of the site mid-point; however, no signs were spotted during the site walkover. No suitable ponds were available site, and a pond within 500m of the site on the Eastern triangle of Tottenham Railsides is unlikely to be connected. Suitable habitat exists on site for reptiles and slow worm have been recorded within 2km of the site; further surveys are required. Many species of bats have been recorded nearby and there is suitable habitat found on site; further surveys are required. Water Vole and Hedgehog have been recorded within 2km of the site midpoint; further surveys for water vole are required.



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1 INTRODUCTION

1.1 Purpose and scope of this report

- 1.1.1 RPS Ecology were commissioned by Thames Water to undertake a Preliminary Ecological Appraisal (PEA) of the land associated with Eade road, London, N4 1DJ.
- 1.1.2 To undertake an initial assessment of the potential ecological impact of the proposals, a desk study, Phase 1 Habitat Survey, and a preliminary protected species assessment were carried out. This is termed as a Preliminary Ecological Appraisal Report (PEAR) in accordance with CIEEM (2017). This assessment is considered 'preliminary' until any required protected species, habitat or invasive species surveys are completed, and the results incorporated into a final Ecological Appraisal or Ecological Impact Assessment (EcIA) which supports the planning application.

1.1.3 The PEA aims to:

- undertake a desk-based review of designated sites and records of protected species and other species that could present a constraint;
- map and assess the habitats present on site;
- assess the site for potential to support protected species or other species that could present
 a constraint, and make appropriate recommendations for further survey work if necessary;
- provide outline options for mitigation measures as appropriate; and
- make recommendations for appropriate biodiversity enhancements in line with national and local planning policy.
- 1.1.4 This report pertains to these results only; recommendations included within this report are the professional opinion of an experienced ecologist and therefore the view of RPS. The surveys and desk-based assessments undertaken as part of this review and subsequent report including the Ecological Appraisal Notes are prepared in accordance with the British Standard for Biodiversity Code of Practice for Planning and Development (BS42020:2013).

1.2 Study area and Zone of Influence

- 1.2.1 The site is located off Eade Road, London, N1 4DJ. The site is approximately 2.93 ha in size. The National Grid coordinates for the centre of the site are TQ 32300 87860.
- 1.2.2 The site comprises New River, which runs through the site and separates it into north and south sides. The north side comprises mostly modified grassland with bramble and mixed scrub and two small tree lines, two buildings, grids, pipes and two brick borehole covers, as well as several areas of fencing and gating separating the site from residential areas to the north, including Eade Road. The south side comprises the unsealed New River Path, which follows the river, thick bramble scrub with several scattered trees and a varying fence/wall boundary separating the site from residential areas and the schools to the south. The east and west of the site lead onto Seven Sisters Road and Green Lanes Road, respectively.

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- 1.2.3 The site location is shown on Figure 1.1. Aerial imaging available via Google Earth Pro was also reviewed to assess the site in relation to its context in the wider landscape. The site is capped with two roads to the east and west; Green Lanes Road (A105) is to the west and Seven Sisters Road (A503) is to the east. There are residential areas to the north of the site and commercial properties and two schools (Skinner's Academy and Woodberry Down Primary School) to the south. The site is also connected to the wider landscape through New River, which runs through the site east to west. Finsbury Park resides west of the site separated by Green Lanes Road.
- 1.2.4 The term Zone of Influence is used to describe the geographic extent of potential impacts of a proposed development. The Zone of Influence is determined by the nature of the development and also in relation to designated sites, habitats or species which might be affected by the proposals.
- 1.2.5 For this site, the Zone of Influence is considered to be land on and immediately adjacent to the site. The extent of the river is also considered, which is 2.22km long on the east and 2.62 km on the west of the site within 2km of the site boundary, and 0.78km through the site, and adjacent habitats (see again, Figure 1.1).

1.3 Development proposals

- 1.3.1 A small section of New River is to be drained (between Green Lanes and Seven Sisters bridges), and desilted, before being relined to reduce potential flooding impacts to the adjacent residential properties. The land on the northern side of the river is likely to be used as a haul road, although this is yet to be confirmed.
- 1.3.2 No proposed site plans have yet been provided.

1.4 Legislation and policy

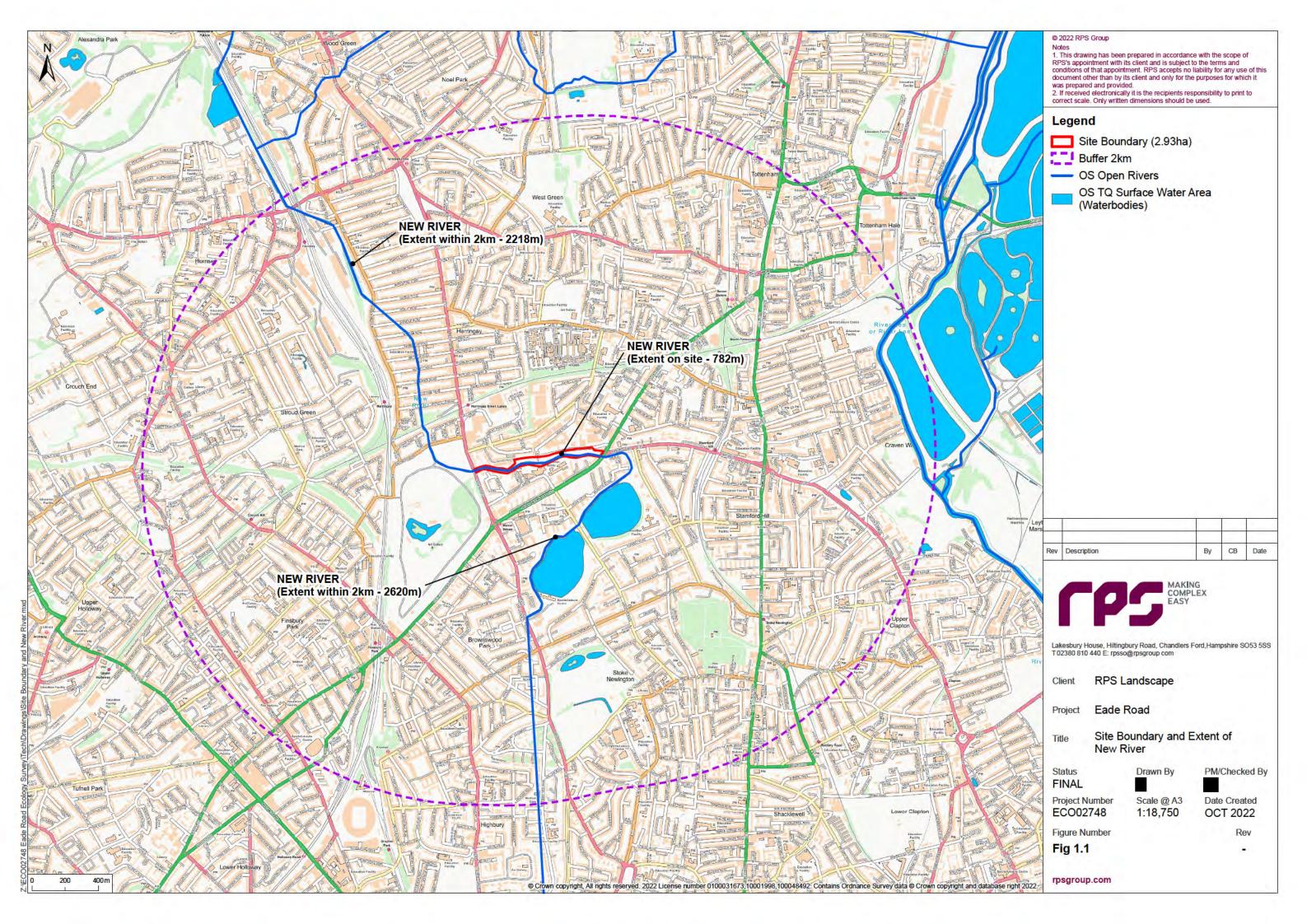
- 1.4.1 Relevant legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to throughout this report where appropriate. Their context and application is explained in the relevant sections of this report.
- 1.4.2 The relevant articles of legislation are:
 - The National Planning Policy Framework (NPPF, 2022);
 - ODPM Circular 06/2005 (retained as Technical Guidance on NPPF 2022);
 - London Plan (2022)
 - The Conservation of Habitats and Species Regulations 2017;
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Protection of Badgers Act 1992;
 - The Countryside and Rights of Way Act 2000;
 - The Hedgerow Regulations 1997;
 - The Natural Environment and Rural Communities Act 2006;



1.4.3 A summary of legislation relevant to protected or other species identified as potential constraints in this report is provided in Appendix A.



Figure 1.1 Site Location and river extent.





2 METHODS

2.1 Desk Study

- 2.1.1 Ecological records within a 2 km radius of the site were requested from Greenspace Information for Greater London (GiGL). Data requests were limited to records for protected species recorded within the last ten years and sites of nature conservation interest within 2 km of the site. This included a review of existing statutory sites of nature conservation interest, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), Special Area of Conservation (SACs) and National Nature Reserves (NNRs), and non-statutory sites, such as Sites of Importance for Nature Conservation (SINCs) and Local Wildlife Sites (LWSs).
- 2.1.2 Locations of statutory designated sites were accessed via the government 'MAGIC' website (MagicMap, 2022).
- 2.1.3 A 1:25,000 OS map was used to identify nearby features such as ponds or green corridors that could provide habitat or connectivity to other areas.

2.2 Ecological Appraisal

- 2.2.1 The ecological appraisal consisted of two components: a Phase 1 Habitat survey and a scoping survey for protected species and other species of conservation concern which could present a constraint to development.
- 2.2.2 The survey was undertaken by suitably qualified RPS Assistant Ecologist, Samantha Payne, on the 30th August 2022, followed by a second visit on the 1st September, 2022.
- 2.2.3 The Phase 1 habitat surveys followed the standard methodology Version 1.1 of The UK Habitat Classification (UK Habs, 2021). In summary this comprised walking over the survey area and recording habitat types and boundary features present.
- 2.2.4 A protected species scoping survey was carried out in conjunction with the Phase 1 Habitat survey. The site was assessed for its suitability to support protected species, in particular Great crested newts *Triturus cristatus*, reptiles, birds, badgers *Meles meles*, bats, and other species of conservation importance that could pose a planning constraint.
- 2.2.5 The surveyor looked for evidence of use including signs such as burrows, droppings, footprints, paths, hairs, refugia and particular habitat types known to be used by certain groups such as ponds. Any mammal paths were also noted down and where possible followed. Fence boundaries were walked to establish any entry points or animals' signs such as latrines. Areas of bare earth were inspected for mammal prints. Areas of habitat considered suitable for protected species or those of conservation interest were recorded.

2.3 Impact Appraisal

2.3.1 The overall ecological appraisal is based on the standard best practice methodology provided by the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). The assessment identifies sites, habitats, species and other ecological features that are of value based on factors such as legal protection, statutory or local site designations such as Sites of Special Scientific Interest



- (SSSI) or Local Wildlife Sites (LWS) or inclusion on Red Data Book Lists or Biodiversity Action Plans.
- 2.3.2 The assessment also refers to planning policy guidance (e.g. NPPF) where relevant to relate the value of the site and potential impacts of development to the planning process, identifying constraints and opportunities for ecological enhancement in line with both national and local policy.
- 2.3.3 The methodology for evaluation of the nature conservation value of ecological features affected by development (ecological receptors) is adapted from the current Charted Institute of Ecology & Environmental Management guidelines for Ecological Impact Assessment (CIEEM, 2016). These guidelines recommend assignment of value (or potential value) to ecological receptors in accordance with the following scale:
 - 1. International;
 - 2. UK;
 - 3. National (i.e. England/Northern Ireland/Scotland/Wales);
 - 4. Regional;
 - 5. County (or Metropolitan e.g. in London);
 - 6. District (or Unitary Authority, City, or Borough);
 - 7. Local or Parish; and/or
 - 8. within immediate zone of influence only.
- 2.3.4 Following on from the above, potential constraints to development are identified on that basis, with recommendations for further, more detailed surveys made as appropriate, for example to fully investigate botanical value or to confirm presence / likely absence of a protected species
- 2.3.5 In appraising any impacts, the review considers the client's site proposals and any subsequent recommendations made are proportionate and appropriate to the site and have considered the Mitigation Hierarchy as identified below:
 - Avoid: Provide advice on how the development may proceed by avoiding impacts to any species or sites by either consideration of site design or identification of an alternative option.
 - Mitigate: Where avoidance cannot be implemented mitigation proposals are put forward to
 minimise impacts to species or sites as a result of the proposals. Mitigation put forward is
 proportionate to the site.
 - **Compensate**: Where avoidance cannot be achieved any mitigation strategy will consider the requirements for site compensatory measures.
 - **Enhance:** The assessment refers to planning policy guidance (e.g. NPPF) to relate the ecological value of the site and identify appropriate and proportionate ecological enhancement in line with both national and local policy.
- 2.3.6 When describing impacts on ecosystem structure and function, reference is made to the following aspects where appropriate:
 - i. extent;



- ii. magnitude;
- iii. duration;
- iv. reversibility;
- v. timing and frequency; and
- vi. cumulative effects.
- 2.3.7 Understanding the nature of the impact enables determination of the effect on the ecological integrity of the ecological receptor. This in turn is assessed against the importance of the receptor to determine the significance of the effect on nature conservation interests as being (i) not significant, or (ii) a significant positive or adverse impact.

2.4 Limitations

Desk Based Assessment

2.4.1 The desk study data is third party controlled data, purchased for the purposes of this report only. RPS cannot vouch for its accuracy and cannot be held liable for any error(s) in these data.

Survey

- 2.4.2 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 characterisation and prediction of the natural environment.
- 2.4.3 The protected/notable species assessment provides a preliminary view of the likelihood of these species occurring on the site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected/notable species group.

Accurate Lifespan of Ecological Data

2.4.4 The majority of ecological data remain valid for only short periods due to the inherently transient nature of the subject. The survey results contained in this report are considered accurate for two years, assuming no significant considerable changes to the site conditions.



3 RESULTS

3.1 Designated Sites

- 3.1.1 There are seven statutory designated sites for nature conservation value within 2 km of the site. The closest of these is Railway Fields, Green Lanes Local Nature Reserve (LNR), 0.37 km from the site boundary.
- 3.1.2 Thirty non-statutory sites are located within the 2 km search radius of the site, the closest of which is New River Site, located within the site itself.
- 3.1.3 A summary of these sites is provided in Table 3.1 below and the location of each site is detailed in Figure 3.1.

Table 3.1: Designated sites within 2 km of the study area

Site name	Туре	Approx. area (ha)	Interest Features	Distance from site (km)			
Statutory Sites	Statutory Sites						
Railway Fields, Green Lanes	LNR	0.87	Railway Fields has been developed as an educational resource centre for schools and groups of people to visit throughout the borough. Although small, the site is abundant in wildlife, containing habitats such as a woodland copse, grassland and a small pond.	0.37			
Parkland Walk	LNR	14.31	The Parkland Walk is close to the railway that is specifically managed as a Natural Conservation Area. The walkway contains naturally regenerated woodland, scrub and rough grassland forming a variety of habitats for flora and fauna. There is an information and education centre located on site for use by the public, local community and schools.	0.72			
Abney Park Cemetery	LNR	12.54	The Cemetery is principally comprised of woodland and contains a mixture of mature trees and dense undergrowth. It represents the most important area of woodland in the London Borough of Hackney. This creates a valuable habitat for a diverse assemblage of woodland birds. The cemetery also supports a diversity of butterfly species. The main use of the site is for formal education purposes and the Abney Park Cemetery Trust promotes the nature conservation interest.	1.00			
Gillespie Park	LNR	3.02	The site is divided into two distinct areas—the lower level is a mix of small woodlands, scrub, meadows and a pond. The upper level is mainly grassland with patches of scrub and two wetland areas. The site is good for school visits because of its wide variety of habitats contained within a compact area. There is also an Ecology Centre with good facilities.	1.21			
Springfield Park	LNR	13.59	The site is a Regionally Important Geological Site (RIGS). Formed from the grounds of three private houses, of which only Springfield House (The White House) remains. The Park is around 40 acres in size, with formalised gardens and conservation areas and has extensive views across Walthamstow Marshes.	1.68			
Lee Valley	Ramsar, SPA	451.3	The Lee Valley site comprises four SSSIs spaced along the valley from just downstream of Ware in Hertfordshire to Finsbury Park in London, a total distance of about 24 km. The	1.78			



Site name	Туре	Approx. area (ha)	Interest Features	Distance from site (km)
			whole site is contained within the Lee Valley Regional Park. A series of wetlands and reservoirs occupy about 20 km of the Lee valley. The site comprises embanked water supply reservoirs, sewage treatment lagoons and former gravel pits that support a range of man-made, semi-natural and valley bottom habitats.	
Walthamstow Reservoirs	SSSI	179.51	The Walthamstow Reservoirs contain one of the country's major heronries and a particularly large concentration of breeding wildfowl. They are also an important gathering area for moulting tufted duck and in winter attract nationally significant populations of wildfowl and other wetland birds.	
Non-statutory Site	es			
New River	SINC	30.41	The river supports a diverse aquatic and marginal flora, including the London rarities lesser water-parsnip Berula erecta, unbranched bur-reed Sparganium emersum, stream water-crowfoot Ranunculus penicillatus and the nationally declining river water-dropwort Oenanthe fluviatilis. Kingfishers are seen regularly and may breed. The aquatic invertebrate fauna is also likely to also be diverse, as indicated by the range of dragon/damselflies present, which include red-eyed damselfly, which is scarce in London, and very large populations of common blue damselfly. The river supports a good range of fish, including pike, perch, roach and carp, and may be of value for amphibians.	
Stoke Newington Reservoirs	SINC	21.25	Two small reservoirs surrounded by built-up areas, being fed by the New River from chalk springs. Of interest mainly as a haven for waterfowl. Wintering tufted duck numbers reach national significance at times, particularly in cold weather when the high thoughflow of water ensures ice-free conditions. Substantial numbers of moulting tufted duck also spend the summer here. The reservoirs have formerly held important numbers of wintering pochard and smew, but these have since declined. They still attract significant numbers of gadwall, and small numbers of mallard and other waterfowl throughout the year, while regular passage species include common waders. The east basin, an operational water supply reservoir, is the most important of the two for waterfowl, being less disturbed than the west reservoir, which is used for water sports. The reservoirs are also valuable for amphibians, supporting substantial populations of smooth newt and common toad.	
Finsbury Park	SINC	45.28	It is by far the largest open space in a substantial area of central north London. The current nature conservation of the site is somewhat limited, although there are plenty of mature trees. An area of gravelly grassland on the south-west edge of the park supports an interesting range of spring ephemerals, including lesser chickweed Stellaria pallida and common whitlow-grass Erophila verna, which are rare in London, and parsley-piert Aphanes arvensis, which is uncommon in Haringey. The New River runs through the park.	



Site name	Туре	Approx. area (ha)	Interest Features	Distance from site (km)
Harringay Stadium Slopes	SINC	1.02	Harringay Stadium was a greyhound and speedway racing venue that was demolished in 1987, along with the ice rink and boxing arena next door. A steep bank remains behind the houses of Finsbury Park Avenue, vegetated with a mosaic of sycamore Acer pseudoplatanus woodland, scrub of hawthorn Crataegus monogyna, bramble Rubus fruticosus agg. and elder Sambucus nigra, rough grassland and tall herbs. Deadly nightshade Atropa belladonna, scarce in London, occurs here at one of very few Haringey sites. The grassland on the southfacing slope is good for butterflies, and supports a colony of common blue.	0.15
Railway Fields Local Nature Reserve	SINC	0.86	Railway Fields is an educational nature reserve with a mosaic of habitats supporting a diverse flora, and includes an environmental education centre. There are a number of uncommon plants, both native and exotic, which include the 'Haringey knotweed', a hybrid between Japanese knotweed Fallopia japonica and Russian-vine F. baldschuanica, which was first described from this site.	0.35
Tottenham Railsides	SINC	18.16	The triangles contain willow Salix spp. woodland, a rare habitat in London, and there is a pond in the eastern triangle. The embankments support sycamore Acer pseudoplatanus woodland with areas of rough grassland, tall herbs and scrub. The site as a whole provides a substantial area of relatively undisturbed habitat, and is an important corridor leading from the Lea valley into the more built-up parts of the borough.	0.37
St Ann's Hospital Wood	SINC	0.70	This narrow strip of woodland lies on the southern edge of the hospital grounds, alongside the embankment of the Barking to Gospel Oak railway line. The canopy includes ash Fraxinus excelsior, beech Fagus sylvatica, oak Quercus robur, horse chestnut Aesculus hippocastanum and poplars Populus spp., the latter including a very fine old grey poplar P. x canescens. There is a single wild service-tree Sorbus torminalis, while true service-tree Sorbus domestica is becoming naturalised through seedlings from several planted trees. The shrub layer consists largely of hawthorn Crataegus monogyna and regenerating elm Ulmus sp The ground flora is dominated by nettle Urtica dioica and large bindweed Calyustegia silvatica, with rough grassland in more open areas.	0.44
Paignton Road Open Space	SINC	1.98	This small park has numerous trees, including old fruit trees which may be important for invertebrates. Hedges and dense shrubbery provide cover for birds and other animals, and there are small areas of meadow and ruderal habitats. The nationally scarce musk stork's-bill <i>Erodium moschatum</i> is established in the grassland. Of interest to botanists, grey snake-bark maple <i>Acer rufinerve</i> has reproduced here by seedlings from planted trees.	0.51
Holmleigh Railway Cutting	SINC	3.52	The fairly broad railway cutting between Stoke Newington and Stamford Hill stations contains one of the largest areas of self-established vegetation in Hackney. The site has good diversity of habitats, from grassland through the successional stages to ash/sycamore woodland. This, coupled with the lack of disturbance, is likely to support good populations of birds and other animals. There is no public access, but the cutting	0.60



Site name	Туре	Approx. area (ha)	Interest Features	Distance from site (km)
			provides an attractive view for rail travellers, and for local residents, many of whom show a keen interest in the site and are trying to establish it as a nature reserve. There are also good views from West Bank and East Bank and from the road bridges at Dunsmure Road and Amhurst Park. As this is operational railway land, railway safety and efficient operation must be the priorities for vegetation management, but this need not be incompatible with management to benefit nature conservation.	
Parkland Walk, Queen's Wood and Highgate Wood	SINC	66.71	An extensive area of woodland in the midst of suburban north London. The various parts of the site have very different origins; Highgate and Queen's Woods are both ancient woodlands, while the Parkland Walk is a former Victorian railway line reclaimed for use as open space. Despite heavy visitor numbers, the ancient woodlands support a diverse flora and fauna, and consist mainly of oak Quercus spp. and hornbeam Carpinus betulus. The ground flora of both woods includes abundant bluebell Hyacinthoides non-scripta and wood anemone Anemone nemorosa. Queen's Wood contains several rarer species, including thin-spiked wood-sedge Carex strigosa, hard-fern Blechnum spicant and broad-leaved helleborine Epipactis helleborine. The Parkland Walk consists mainly of secondary woodland dominated by birch Betula spp. and sycamore (Acer pseudoplatanus), with smaller areas of scrub and grassland. Locally uncommon plants here include small toadflax Chaenorhinum minus, black spleenwort Asplenium adiantum-nigrum and common broomrape Orobanche minor. Breeding birds include tawny owl and spotted flycatcher. Is an important site for specially-protected bats.	0.67
Stroud Green Railway Bank	SINC	2.18	This steep slope above railway sidings is vegetated with scrub and woodland of oak Quercus robur, birch Betula pendula and sycamore Acer pseudoplatanus.	0.70
Chestnuts Park	SINC	5.14	There are plenty of mature trees, mostly London planes Platanus x hispanica with occasional common lime Tilia x europaea, horse chestnut Aesculus hippocastanum and weeping willow Salix x sepulchralis. Some areas are managed for nature conservation. The grass is allowed to grow long, encouraging grasshoppers and other invertebrates, and native trees and shrubs have been planted, including ash Fraxinus excelsior, holly llex aquilifolium, beech Fagus sylvatica, hazel Corylus avellana and dogwood Cornus sanguinea. A scented garden by the south-east entrance provide a good nectar source for bees. Hundreds of bulbs planted by the local community bring added life and colour in the spring. House sparrows can still be found here especially in the dense firethorn Pyracantha sp. hedge in the north-west corner.	0.75
Allen's Gardens	SINC	0.88	This small park, adjacent to Holmleigh railway cutting, is much loved by local residents who are closely involved in its management. Parts of the park are managed with nature conservation, and people's contact with nature, very much in mind. One of the most attractive features is a 'wild woodland walk'.	0.81



Site name	Туре	Approx. area (ha)	Interest Features	Distance from site (km)
Abney Park Cemetery	SINC	12.53	This large Victorian cemetery located within an extensive tract of dense housing was originally planted as an arboretum, but after many years of relaxed management is now largely secondary woodland. Although still an active cemetery few burials actually take place, and it is now renowned for its wildlife and cultural interest being well-used for recreation and educational purposes. The cemetery is of particular interest for its combination of woodland with grassy paths and glades. Its flora is diverse and includes wood spurge Euphorbia amygdaloides, a rare plant in north London, normally associated with ancient woodland. Grassy clearings support the locally uncommon plants meadow crane's-bill Geranium pratense and deadly nightshade Atropa belladonna. A diverse breeding avifauna includes sparrowhawk and tawny owl. The invertebrate fauna also includes several species more usually associated with ancient woodland.	0.99
Granville Road Spinney	SINC	0.30	This small wood is a remnant of a larger area of woodland. The canopy is dominated by sycamore Ascer pseudoplatanus, with an unusual range of planted trees including three fine specimens of the hybrid between rowan and whitebeam Sorbus x thuringiaca. The shrub layer includes wild plum Prunus domestica, hawthorn Crataegus monogyna and hazel Corylus avellana, with a ground flora dominated by bramble Rubus fruticosus agg. and cow parsley Anthriscus sylvestris. A range of other woodland flowers, including ramsons Allium ursinum and three-cornered leek A. triquetrum have been planted and are now well naturalised.	1.01
Clissold Park	SINC	22.57	This is the largest park in Hackney. The most important features for nature conservation are the two sizeable lakes. These have been planted with a good range of marginal vegetation, and support populations of common waterfowl. The park also contains areas of scrub and neutral grassland, and numerous fine mature trees. Pipistrelle bats are frequently seen.	1.12
Upper Holloway Railway Cutting	SINC	0.19	The various sections of active railway line crossing Islington are of immense importance to its wildlife, as their cuttings and embankments support a significant proportion of the borough's undeveloped land. The network supports an extensive mosaic of open and wooded habitats, valued by birds, mammals and insects, as well as by rail travellers for the deceptively rural outlook that these afford. The vegetation which develops naturally alongside railways in Islington is influenced by the underlying substrate and the frequency and nature of management. Their linear character and connectivity with less-developed parts of London enables more mobile wildlife to disperse and penetrate deep within the city.	1.21
Gillespie Park	SINC	3.44	A small ecology park supporting a remarkable diversity of habitats and species, situated within a part of London notably deficient in good wildlife sites. The original park consists of a mosaic of created habitats, including a pond, woodland and grassland. The grassland of the park extension on former rail sidings is naturally established and unusually species-rich. Several plants occur here that are very rare in central London,	1.22



Site name	Туре	Approx. area (ha)	Interest Features	Distance from site (km)
			including narrow-leaved bird's-foot-trefoil Lotus glaber, grass vetchling Lathyrus nissolia, pyramidal orchid Anacamptis pyramidalis and bee orchid Ophrys apifera. The park also supports a surprising diversity of birds and invertebrates for its location. It has twice made headlines for unusual finds; first for the 1987 discovery of a hybrid grass, the so-called Gillespie fescue Festuca rubra x Vulpia myuros, and latterly in 1990 for the first recorded breeding of the long-tailed blue butterfly in the UK.	
Holly Park Estate	SINC	4.15	The estate has one of the highest concentrations of mature trees in Islington. These include Turkey and pedunculate oaks <i>Quercus cerris</i> , <i>Q. robur</i> , beech <i>Fagus sylvatica</i> and London plane <i>Platanus x hispanica</i> . Beneath these majestic trees, the lawns are managed largely for amenity purposes and therefore kept short. Towards the estate margins, however, are raised banks supporting several woodland wild flowers, including bluebell <i>Hyacinthoides non-scripta</i> and red campion <i>Silene dioica</i> . Other former parkland features include thickets of holly <i>Ilex aquilifolium</i> , elder <i>Sambucus nigra</i> and bramble <i>Rubus fruticosus agg.</i> .	1.22
Lorsdhip Lane Recreation Ground	SINC	12.08	The most valuable features for nature conservation in this large park are a short length of stream known as 'The Moselle', and a pond which supports common waterfowl. The stream, which sometimes dries up in summer, is fringed with very large white willows Salix alba, some of which have been pollarded. The pond has vertical concrete sites and holds little aquatic vegetation except duckweed Lemna spp. and a little square-stalked willowherb Epilobium tetragonum at the edges. Mallards and moorhens breed on the wooded island. Adjacent damp grassland has a large population of marsh foxtail Alopecurus geniculatus, which is scarce in Haringey. A further small plot of native species woodland has been planted in the south east corner which will provide good habitat for birds as it matures.	
Ancient Mother Churchyard, Stoke Newington	SINC	0.31	Trees and shrubs include some fine mature London plane <i>Platanus x hispanica</i> , common lime <i>Tilia x europaea</i> . These provide habitat for birds and invertebrates, including the holly blue butterfly. Glades support wild flowers such as cow parsley <i>Anthriscus sylvestris</i> , bittersweet <i>Solanum dulcamara</i> and enchanter's nightshade <i>Circaea lutetiana</i> . There are good moss communities on the walls and tombstones.	
Clapton Common Pond	SINC	0.32	This ornamental pond on Clapton Common is somewhat eutrophic, due to the popularity of feeding the ducks. The pond nevetheless has quite good wetland vegetation, particularly at the southern end. Here, common reed (Phragmites australis), common club-rush (Schoenoplectus lacustris), yellow iris (Iris pseudacorus) and soft rush (Juncus effusus) provide cover for nesting waterfowl. These include coots and mallards. The surface of the pond is covered by a large population of greater duckweed (Spirodela polyrhiza), which is rare in London.	
ldledon Road Railsides	SINC	2.52	The various sections of active railway line crossing Islington are of immense importance to its wildlife, as their cuttings and embankments support a significant proportion of the	



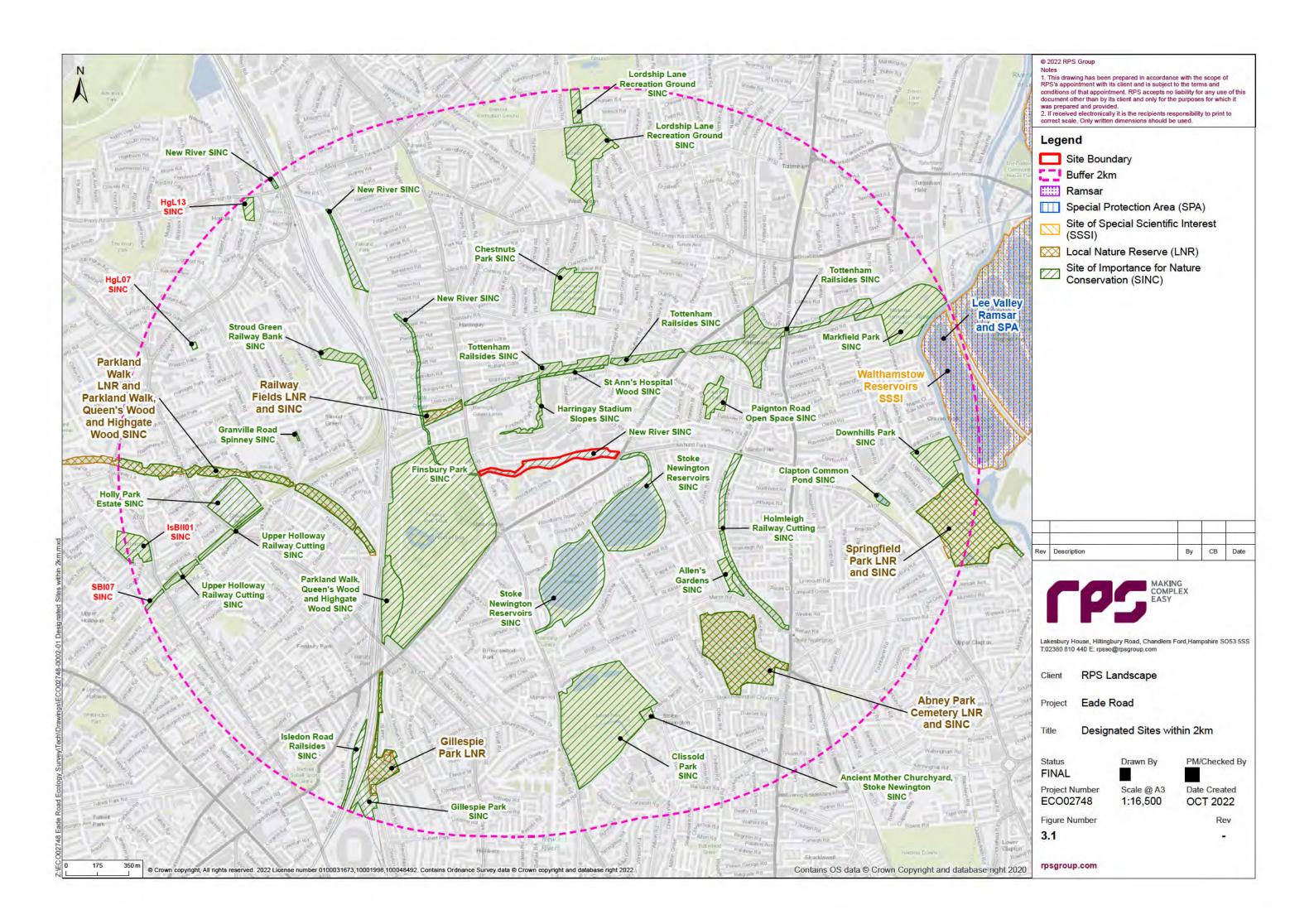
Site name	Туре	Approx. area (ha)	Interest Features	Distance from site (km)
			borough's undeveloped land. The network supports an extensive mosaic of open and wooded habitats, valued by birds, mammals and insects. The vegetation which develops naturally alongside railways in Islington is influenced by the underlying substrate and the frequency and nature of management. Their linear character and connectivity with less-developed parts of London enables more mobile wildlife to disperse and penetrate deep within the city. Habitats remaining today include roughland, tall grassland and buddleia (Buddleja davidii) scrub.	
Markfield Park	SINC	7.81	This small park adjacent to the River Lea has a good diversity of self-established habitats at the northern end, where a mosaic of scrub, young woodland, tall herbs, rough grassland and ruderal vegetation can be found. Old walls and other concrete and stone structures, support a remarkable range of rare plants: this is one of only two or three London sites for the nationally scarce wall bedstraw Galium parisiense, which grows alongside several locally rare ferns, including rustyback Ceterarch officinarum, common polypody Polypodium vulgare and maidenhair spleenwort A. Trichomanes.	1.50
Downhills Park	SINC	6.57	This sizeable park has excellent tree cover, in places forming a woodland structure over dense shrubberies. Native species, including hornbeam Carpinus betulus, hawthorn Crataegus monogyna and pedunculate oak Quercus robur, predominate, and there are also some fine specimens of exotic species such as cork oak Q. suber and cedar of Lebanon Cedrus libani. The park supports good populations of common birds, including song thrush and mistle thrush, and the declining spotted flycatcher has bred in recent years.	1.62
HcBl01: Springfield Park	SINC,RIG S	14.73	Formed from the grounds of three private houses, of which only Springfield House (The White House) remains. The Park is around 40 acres (15.5 hectares) in size, with formalised gardens and conservation areas and has extensive views across Walthamstow Marshes. Most of the site's 15.5 ha is designated LNR, SINC and RIGS.	1.68
HgL07: Land behind 3 Fairfield Road	No info on GiGL site			1.70
HgL13	N/S	N/S	N/S	1.87
SBI07	N/S	N/S	N/S	1.87
IsBII01	N/S	N/S	N/S	1.87

Abbreviations used in Table 3.1: SAC: Special Area of Conservation; SPA: Special Protection Area; SSSI: Site of Special Scientific Interest; CWS: County Wildlife Site; NS: Not supplied; ha: hectare. LNR: Local Nature Reserve. SINC: Site of Importance for Nature Conservation; RIGS: Regionally Important Geological Site; Ramsar: Wetlands of international importance (The Ramsar Convention).



Figure 3.1: Designated sites within 2km

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3.2 Species

- 3.2.1 Records of protected species were obtained from the Greenspace Information for Greater London (GIGL). A number of species of conservation importance or otherwise notable were recorded within the 2 km search radius of the site. A summary of these records is provided in Table 3.2.
- 3.2.2 In order to simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6 figure grid reference resolution or higher are provided, since locations given at a lower resolution do not allow accurate calculation of distance to the site boundary.

Table 3.2: Species records from the last 10 years within 2 km of the site

Scientific name	Common name	Conservation Status	Nearest distance from site (m)	Year of most recent record
Amphibians				
Bufo bufo	Common Toad	NERC Act Section 41 LPS Local Spp of Cons Conc	495	19/03/2021
Rana temporaria	Common Frog	HSD5 LPS	495	18/03/2021
Reptiles				
Anguis fragilis	Slow-worm	W&CA Sch5 Sec 9.1k/i NERC Act Section 41 LPS Local Spp of Cons Conc	951	17/06/2021
Birds				
Acanthis cabaret	Lesser Redpoll	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	515	31/10/2017
Actitis hypoleucos	Common Sandpiper	LPS	381	25/08/2017
Alauda arvensis	Skylark	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	851	11/10/2014
Alcedo atthis	Kingfisher	Birds Dir Anx 1 W&CA Sch1 Part 1 LPS	381	24/12/2017
Apus apus	Swift	LPS	307	01/08/2020
Aythya ferina	Pochard	LPS Local Spp of Cons Conc Bird-Red	381	31/12/2017
Botaurus stellaris	Bittern	Birds Dir Anx 1 W&CA Sch1 Part 1 NERC Act Section 41 LPS Local Spp of Cons Conc	515	25/01/2017
Cuculus canorus	Cuckoo	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	1458	02/05/2016
Curruca curruca	Lesser Whitethroat	LPS	1768	06/05/2016
Delichon urbicum	House Martin	LPS	381	21/09/2017
Egretta garzetta	Little Egret	Birds Dir Anx 1	381	30/03/2017



Scientific name	Common name	Conservation Status	Nearest distance from site (m)	Year of most recent record
Emberiza schoeniclus	Reed Bunting	NERC Act Section 41 Local Spp of Cons Conc	381	21/05/2018
Ficedula hypoleuca	Pied Flycatcher	Local Spp of Cons Conc Bird- Red	381	13/09/2016
Gavia immer	Great Northern Diver	Birds Dir Anx 1 W&CA Sch1 Part 1	515	24/04/2017
Hydrocoloeus minutus	Little Gull	Birds Dir Anx 1 W&CA Sch1 Part 1	515	12/03/2017
lchthyaetus melanocephalus	Mediterranean Gull	Birds Dir Anx 1 W&CA Sch1 Part 1	381	03/01/2017
Larus argentatus	Herring Gull	Bird-Red	381	21/05/2018
Larus fuscus	Lesser Black- backed Gull	LPS	381	21/05/2018
Larus fuscus fuscus	Baltic Gull	LPS	515	09/12/2017
Limosa lapponica	Bar-tailed Godwit	Birds Dir Anx 1	515	01/05/2017
Linaria cannabina	Linnet	LPS Local Spp of Cons Conc Bird-Red	381	30/04/2016
Mareca strepera	Gadwall	LPS	381	31/12/2017
Milvus milvus	Red Kite	Birds Dir Anx 1 W&CA Sch1 Part 1	381	29/09/2019
Motacilla cinerea	Grey Wagtail	Local Spp of Cons Conc Bird- Red	381	26/06/2017
Motacilla flava	Yellow Wagtail	Local Spp of Cons Conc Bird- Red	381	15/09/2017
Muscicapa striata	Spotted Flycatcher	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	381	25/08/2017
Passer domesticus	House Sparrow	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	381	21/05/2018
Platalea leucorodia	Spoonbill	Birds Dir Anx 1 W&CA Sch1 Part 1	604	04/09/2014
Plegadis falcinellus	Glossy Ibis	Birds Dir Anx 1	515	23/12/2016
Prunella modularis		LPS	381	21/05/2018
Regulus ignicapilla	Firecrest	W&CA Sch1 Part 1	381	31/03/2016
Riparia riparia	Sand Martin	LPS	381	29/07/2017
Saxicola rubetra	Whinchat	Local Spp of Cons Conc Bird-Red	381	25/07/2017
Sterna hirundo	Common Tern	Birds Dir Anx 1	381	21/05/2018
Sterna paradisaea	Arctic Tern	Birds Dir Anx 1	381	02/05/2014
Strix aluco	Tawny Owl	LPS	604	04/12/2019
Sturnus vulgaris	Starling	LPS Local Spp of Cons Conc Bird-Red	381	01/01/2020
Tadorna tadorna	Shelduck	LPS	381	03/07/2016
Tringa nebularia	Greenshank	W&CA Sch1 Part 1	515	25/08/2017
Tringa ochropus	Green Sandpiper	W&CA Sch1 Part 1	381	05/09/2017



Scientific name	Common name	Conservation Status	Nearest distance from site (m)	Year of most recent record
Turdus iliacus	Redwing	W&CA Sch1 Part 1 Bird-Red	381	16/12/2017
Turdus philomelos	Song Thrush	LPS Local Spp of Cons Conc Bird-Red	381	31/12/2017
Turdus pilaris	Fieldfare	W&CA Sch1 Part 1 Bird-Red	515	16/12/2017
Turdus torquatus	Ring Ouzel	NERC Act Section 41 Local Spp of Cons Conc Bird-Red	515	11/10/2016
Turdus viscivorus	Mistle Thrush	LPS Local Spp of Cons Conc Bird-Red	158	28/12/2017
Vanellus vanellus	Lapwing	NERC Act Section 41 LPS Local Spp of Cons Conc Bird-Red	381	19/10/2017
Mammals - Terrestr	ial (excl. bats)			
Arvicola amphibius	European Water Vole	W&CA Sch5 Sec 9.4a W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc RedList GB-EN	1000	13/09/2016
Erinaceus europaeus	West European Hedgehog	NERC Act Section 41 LPS Local Spp of Cons Conc RedList GB-VU	745	25/07/2021
Mammals - Terrestr	ial (bats)			
Myotis	Myotis Bat species	Hab&Spp Dir Anx 2 Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 Local Spp of Cons Conc RedList_GB-CR RedList_GB-DD	1956	04/08/2015
Myotis daubentonii	Daubenton's Bat	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc	504	23/10/2017
Myotis mystacinus	Whiskered Bat	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c Local Spp of Cons Conc RedList_GB-DD	1246	01/09/2017
Nyctalus leisleri	Lesser Noctule	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc RedList_GB-Lr(NT)	453	01/09/2017
Nyctalus noctula	Noctule Bat	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc	453	01/09/2017



Scientific name	Common name	Conservation Status	Nearest distance from site (m)	Year of most recent record
Pipistrellus	Pipistrelle Bat species	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 Local Spp of Cons Conc RedList_GB-Lr(NT)	354	02/08/2019
Pipistrellus nathusii	Nathusius's Pipistrelle	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc RedList_GB-Lr(NT)	453	23/10/2017
Pipistrellus pipistrellus	Pipistrelle	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c LPS Local Spp of Cons Conc	453	23/10/2017
Pipistrellus pygmaeus	Soprano Pipistrelle	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc	453	23/10/2017
Plecotus auritus	Brown Long-eared Bat	Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 W&CA Sch5 Sec 9.4b W&CA Sch5 Sec 9.4c NERC Act Section 41 LPS Local Spp of Cons Conc	1246	01/05/2017
Higher Plants - Flow	ering Plants			
Anthemis arvensis	Corn Chamomile	Local Spp of Cons Conc RedList_GB-EN	1782	18/01/2015
Buxus sempervirens	Box	Local Spp of Cons Conc RedList_GB-DD Nationally Rare	1259	01/07/2017
Cardamine bulbifera	Coralroot Bittercress	Local Spp of Cons Conc Nationally Scarce	1851	Jun 2015
Centaurea cyanus	Cornflower	NERC Act Section 41 LPS Local Spp of Cons Conc	495	25/07/2013
Chenopodium glaucum	Oak-leaved Goosefoot	Local Spp of Cons Conc RedList_GB-VU Nationally Scarce	1423	25/10/2016
Cyperus longus	Galingale	Local Spp of Cons Conc RedList_GB-Lr(NT) Nationally Scarce	1651	08/09/2014
Fritillaria meleagris	Fritillary	Nationally Scarce	1728	12/04/2015
Hippophae rhamnoides	Sea-buckthorn	Nationally Scarce	1818	08/09/2014
Hyacinthoides non- scripta	Bluebeil	W&CA Sch8	1951	Oct 2015
Onobrychis viciifolia	Sainfoin	Local Spp of Cons Conc RedList GB-VU	711	2018
Ruscus aculeatus	Butcher's-broom	HSD5	1107	Oct 2015
Silene noctiflora	Night-flowering Catchfly	Local Spp of Cons Conc RedList_GB-VU	1783	12/06/2015



Scientific name	Common name	Conservation Status	Nearest distance from site (m)	Year of most recent record
Stratiotes aloides	Water-soldier	Local Spp of Cons Conc Nationally Rare	1733	08/09/2014
Tilia platyphyllos	Large-leaved Lime	Nationally Scarce	533	01/01/2020
Invertebrates - Mollu	ISCS			
Anisus (Disculifer) vorticulus	Ramshorn Snail	Hab&Spp Dir Anx 2 Hab&Spp Dir Anx 4 Cons Regs 2010 Sch2 NERC Act Section 41 LPS RedList GB-VU	1818	01/06/2013
Arion (Arion) ater	Large Black Slug	RedList_GB-DD	552	28/08/2014
Invertebrates - Drag	onflies & Damselflies			
Sympetrum striolatum	Common Darter	RedList_GB-DD	47	07/09/2018
Invertebrates - Beet	les			
Anobium inexspectatum	A Beetle	Nationally Notable B	1416	01/07/2013
Carabus intricatus	Blue Ground Beetle	NERC Act Section 41 RedList GB-Lr(NT)	1749	04/05/2015
Cossonus linearis	A Beetle	Nationally Notable A	1416	16/05/2014
Cossonus parallelepipedus	A Beetle	Nationally Notable B	1416	29/10/2013
Demetrias imperialis	A Beetle	Nationally Notable B	354	22/02/2015
Hallomenus binotatus	A Beetle	Nationally Notable B	1624	22/05/2016
Lucanus cervus	Stag Beetle	Hab&Spp Dir Anx 2 NERC Act Section 41 LPS Nationally Notable B	106	27/03/2021
Ochthebius poweri	Rockface Beetle	NERC Act Section 41 RedList GB-Lr(NT)	1818	01/06/2013
Orchesia micans	A Beetle	Nationally Notable B	430	07/04/2015
Platyderus depressus	A Beetle	Nationally Notable B	1416	21/04/2014
Platyrhinus resinosus	Cramp-Ball Fungus Weevil	Nationally Notable B	1416	16/04/2014
Plegaderus dissectus	A Beetle	Nationally Notable B	1416	01/08/2013
Rhizophagus nitidulus	A Beetle	Nationally Notable B	1416	15/05/2014
Scymnus limbatus	A Beetle	Nationally Notable B	403	15/04/2015
Uleiota planatus	A Beetle	Nationally Notable A	1416	17/04/2014
Invertebrates - Butte	erflies			
Apatura iris	Purple Emperor	LPS Local Spp of Cons Conc RedList_GB-Lr(NT)	1416	21/07/2015
Coenonympha pamphilus pamphilus	Small Heath	NERC Act Section 41 LPS Local Spp of Cons Conc RedList_GB-Lr(NT)	2036	31/07/2016
Lycaena phlaeas	Small Copper	LPS	1991	29/07/2014



Scientific name	Common name	Conservation Status	Nearest distance from site (m)	Year of most recent record
Lycaena phlaeas eleus	A Butterfly	LPS	1142	31/07/2019
Ochlodes sylvanus	Large Skipper	LPS	354	01/08/2019
Satyrium w-album	White-letter Hairstreak	NERC Act Section 41 LPS Local Spp of Cons Conc RedList_GB-EN	1416	15/07/2013
Thymelicus lineola	Essex Skipper	LPS	552	23/07/2016
Thymelicus sylvestris	Small Skipper	LPS	652	11/08/2019
Invertebrates - Moth	is			
Euplagia quadripunctaria	Jersey Tiger	Hab&Spp Dir Anx 2	728	04/08/2019
Invertebrates - True	Flies			
Brachyopa pilosa	A True Fly	Nationally Scarce Nationally Notable	1416	16/05/2015
Chrysopilus laetus	Tree Snipefly	RedList_GB-Lr(NT)	1882	08/07/2016
Gnophomyia viridipennis	A True Fly	Nationally Notable	1416	28/06/2015
Leopoldius signatus	A True Fly	Nationally Notable	1416	13/08/2013
Macronychia dolini	A True Fly	Nationally Notable	1892	19/07/2015
Mallota cimbiciformis	A True Fly	Nationally Scarce Nationally Notable	1518	27/06/2015
Megamerina dolium	A True Fly	Nationally Notable	1416	01/07/2013
Meligramma euchromum	A True Fly	Nationally Scarce	1923	10/05/2015
Myolepta dubia	A True Fly	Nationally Scarce Nationally Notable	1416	10/07/2015
Pocota personata	A True Fly	Nationally Scarce	1344	24/05/2016
Solva marginata	Drab Wood- soldierfly	Nationally Notable	1416	28/06/2015
Stegana coleoptrata	A True Fly	Nationally Notable	1416	27/07/2014
Invertebrates - Ants	, Bees, Sawflies & Wa	asps		
Andrena labiata	Red-girdled Mining Bee	Local Spp of Cons Conc Nationally Notable A	1416	14/04/2014
Anthophora quadrimaculata	Four-banded Flower Bee	Local Spp of Cons Conc Nationally Notable B	474	31/07/2015
Auplopus carbonarius	An Ant, Bee, Sawfly or Wasp	Local Spp of Cons Conc Nationally Notable B	589	31/07/2015
Bombus humilis	Brown-Banded Carder Bee	NERC Act Section 41 LPS Local Spp of Cons Conc	1492	01/06/2013
Lasius brunneus	Brown Tree Ant	Local Spp of Cons Conc Nationally Notable A	495	22/05/2016

Abbreviations used in Table 3.2: WCA1: Wildlife & Countryside Act Schedule 1, part 1; WCA2: Wildlife & Countryside Act Schedule 2; WCA5: Wildlife & Countryside Act Schedule 5; WCA8: Wildlife & Countryside Act Schedule 9; N: Nationally Notable; Nb: Notable B; NR: Nationally Rare; NS: Na ionally Scarce; NERC: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP:



UK Biodiversity Ac ion Plan priority species; HabDir2, 4, 5: HabItats Directive Annex 2, 4, 5; PBA: Protection of Badgers Act 1992; RedList_GB_Pre94-R: Red List (pre 1994 IUCN guidelines) Rare; RedList_Global_post2001_LC: Global Red list status: Lower risk - least concern; HabRegs2: The Conservation (Natural Habitats, &) Regulations 2017 (Schedule 2); HabRegs4: The Conservation (Natural Habitats, &) Regulations 2017 (Schedule 4); Birds:Red: Bird Popula ion Status: red; Birds:Amber: Bird Population Status: amber; CROWACT: Countryside and Rights of Way Act 2000.

3.3 Phase 1 Habitat Survey

- 3.3.1 The survey results are presented in the form of a map with the habitat types and boundary features marked (Figure 3.2). An explanation of target notes from Figure 3.2 can be found in Appendix B. Photographs can be found in Appendix C.
- 3.3.2 Descriptions of the habitat types and boundary features are detailed below. Habitat descriptions are defined by broad habitat types (UKHabs 2021).

r2b: Other rivers and streams

- 3.3.3 New River is a man-made river that runs through the entirety of the site from West to East, splitting the site into two with a small pathway (New River Path) on the south side and a larger area to the north. There is 782m of New River running through the site.
- 3.3.4 The river runs west to east and is deepest at either end of the site boundary. The river's bank is a man-made straight drop, reenforced with corrugated sheet metal on the north side and wooden planks to the south. The bank varies in height on both the north and south banks. Flow speed is around 0.12m/s, becoming slightly faster towards the middle section of the river.
- 3.3.5 The bank of the river is generally scarce in vegetation, with the occassional plant species including stinging nettle *Urtica dioica*, cow parsley *Anthriscus sylvestris*, buttercup spp. *Ranunculus spp.*, dock spp *Rumex spp.*, plantain spp. *Plantago spp.*, silverweed *Potentilla anserina*, knot grass *Polygonum aviculare*, clover spp. *Trifolium spp.*, horsetails *Equisetum spp.* and field thistle *Cirsium arvense*. On the south bank of the river are a few areas of flooding where a hole where the man-made bank meets the soil allows water to pool. A potential *Cotoneaster* bush was identified on the south-eastern bank of the river.
- 3.3.6 The water is generally clean with several areas where there is rubbish, especially accumulated in the reed beds.

f2e: Reedbeds

3.3.7 Three seperate areas of common reed *Phragmites australis* are found in the middle sections of the river. They spread across the river width and are between 3-20m long. These areas contain accumulations of rubbish, presumably from the public pathway.

U1c: Artificial unvegetated, unsealed surface: Bare ground

3.3.8 A bare ground pathway (New River Path) runs alongside the river on the south side at around 0.75m wide, seperated from the river by a small, thin section of amenity grassland.

U1e: Built linear features: mortared walls (68) and fences (69)

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- 3.3.9 Gating 1: Metal gates serve as an entrance to New River Path on the east and west ends.
- 3.3.10 Fencing 1: 1m tall palisade fencing is found around pipes that cross the river to the west and mid-west on the south side as well as a generator on the north-west side near Building 1. Fencing of this type is also used on the north edge of the site starting mid-west and leading to the east along with a security gate which prevents public access.
- 3.3.11 Fencing 2: a 1m tall concrete fence with barbed wire seperates the south edge of the site from school, commercial and residential areas on the west side of the site. Areas of vegetation grow on and below the fencing including ivy *Hedera helix*, stinging nettle, dandelion *Taraxacum officinale*, bramble *Rubus sp.*, holly *Ilex aquifolium*, and lime *Tilia sp.*. This fence eventually becomes completely covered in ivy as you move east.
- 3.3.12 Concrete fencing is also found on the south side on the far east of the site before reaching Gating 1 on the eastern boundary of the site.
- 3.3.13 Wall 1: as you move further east on the south side, Fencing 2 becomes a mortared brick wall of about 0.75m in height that becomes covered with mesh and metal grating that is covered in vegetation mentioned in "Ruderal Scrub with Trees". Another similar wall is further east that contains metal gating that seperates the site from an elevated residential area on the south. This wall remains, covered by vegetation, until far west on the site, where it becomes concrete fencing once again. The last and largest section of this wall crosses the river on the east side of the site. It stands around 1.5m tall.
- 3.3.14 Fencing 3: Spear top metal fencing seperates the site from residential areas on the north side of the site to the west. This fencing is covered in vegetation that is mentioned in "Ruderal Scrub with Trees".
- 3.3.15 Wall/Fence: A wooden vertical board fence (0.75m) with chicken wire (0.75m) stands atop a 0.25m tall mortared brick wall on the north-west side of the site, just before the palisade fencing begins. This fencing seperates the site from a residential area.

U1b: Developed land; sealed surface: Bridges, paving & grids

- 3.3.16 Bridges: Green Lanes Bridge is a concrete bridge on the western-most side of the site. It is built very close to the river's surface. Seven Sisters Bridge is a similar bridge on the eastern-most side of the site. Both are thick, concrete roads with lots of foot-traffic.
- 3.3.17 Non-permeable paving: by the security gate there consists a small area of concrete paving slabs on bare ground suited as an area for parking cars.
- 3.3.18 Grids: Multiple grids are occur across the site ranging from 0.5m across to 2m across, including a large, elevated grid next to the river. There are five grids on the northern side of the site and five grids on the southern side. See Appendix C for positions and photographs.
- 3.3.19 Other structures: There are two brick borehole covers on the eastern side of the site on the northern edge. Two pipes are situated over the river, one on the western end and on in the middle near the reedbeds. See Appendix C for positions and photographs.

U1b5: Buildings



- 3.3.20 Building 1: a square building approximately 4m tall with several small, barred windows on the top and bottom of each side bar the front, where the door resides. The building is flat-roofed and made of brick with concrete bar slabs along the top and just below. A generator sits within palisade fencing directly to the north of the building.
- 3.3.21 Building 2: An ivy covered disused storage building is on the far north-eastern side of the site.
- 3.3.22 See Appendix C for photographs.

H3d: Bramble scrub

- 3.3.23 On the north-east by the residential flats just before the bridge stands an area of bramble scrub consisting mainly of bramble (*Rubus spp.*) and ivy (*Hedera helix*).
- 3.3.24 All along the southern edge of the site boundary stands dense bramble scrub scattered with trees including holm oak *Quercus ilex*, sycamore *Acer pseudoplatanus*, horse chestnut *Aesculus hippocastanum*, ash *Fraxinus spp.*, privet *Ligustrum spp.*, and hawthorn *Crataegus spp.*.Large butterfly bushes *Buddleja davidii* occured in several instances along the scrub. Climbing nightshade *Solanum dulcamera* was present on the western side of this scrub.

H3h: Mixed scrub

- 3.3.25 North-west by residential: Starting on the north-western side of the site boundary and carrying on until the habitat becomes a ditch before returning to mixed scrub. Growing along the fencing on the north side of the site is mixed scrub containing white jasmine *Jasminum polyanthum*, bindweed *Calystega sepium*, virginia creeper *Parthenocissus quinquefolia* and japanese knotweed *Fallopia japonica* as well as ivy hops *Humulus lupulus* and bramble, (with trees including sycamore *Acer pseudoplatanus*, oak and conifer spp. Overgrown vegetation from the residential area includes birch *Betula spp.*, hazel *Colrylus avellana*, pear *Pyrus communis* and fuchsia *Fuchsia spp.*.
- 3.3.26 On the north-western side of the site seperating two areas of mixed scrub is a ditch, containing the same species of shrubs, scrub and trees as the adjacent mixed scrub.

W1g6: Line of trees

- 3.3.27 On the north-east side stands an around 75m long line of trees (including firethorn, apple, dogrose, willow spp and sycamore) that leads into the north-eastern area of ruderal/ mixed scrub, seperating the site from a residential area of flats.
- 3.3.28 Scattered sycamore narrow-leaved ash and ash trees line the north edge of the site boundary.

Deadwood: standing and fallen

3.3.29 Several areas of deadwood, both standing and fallen/chopped deadwood are scattered across both the northern and southern edges of the site boundary. See Appendix C for the locations and the photographs of the deadwood on the site.

G4: modified grassland

3.3.30 Covering a large area of the northern section of the site is managed amenity grassland consisting of perennial rye grass *Lolium perenne*, cinquefoil *Potentilla spp.*, plantain *Plantago spp.*, dock *Rumex spp.* and silverweed *Potentilla anserina*.

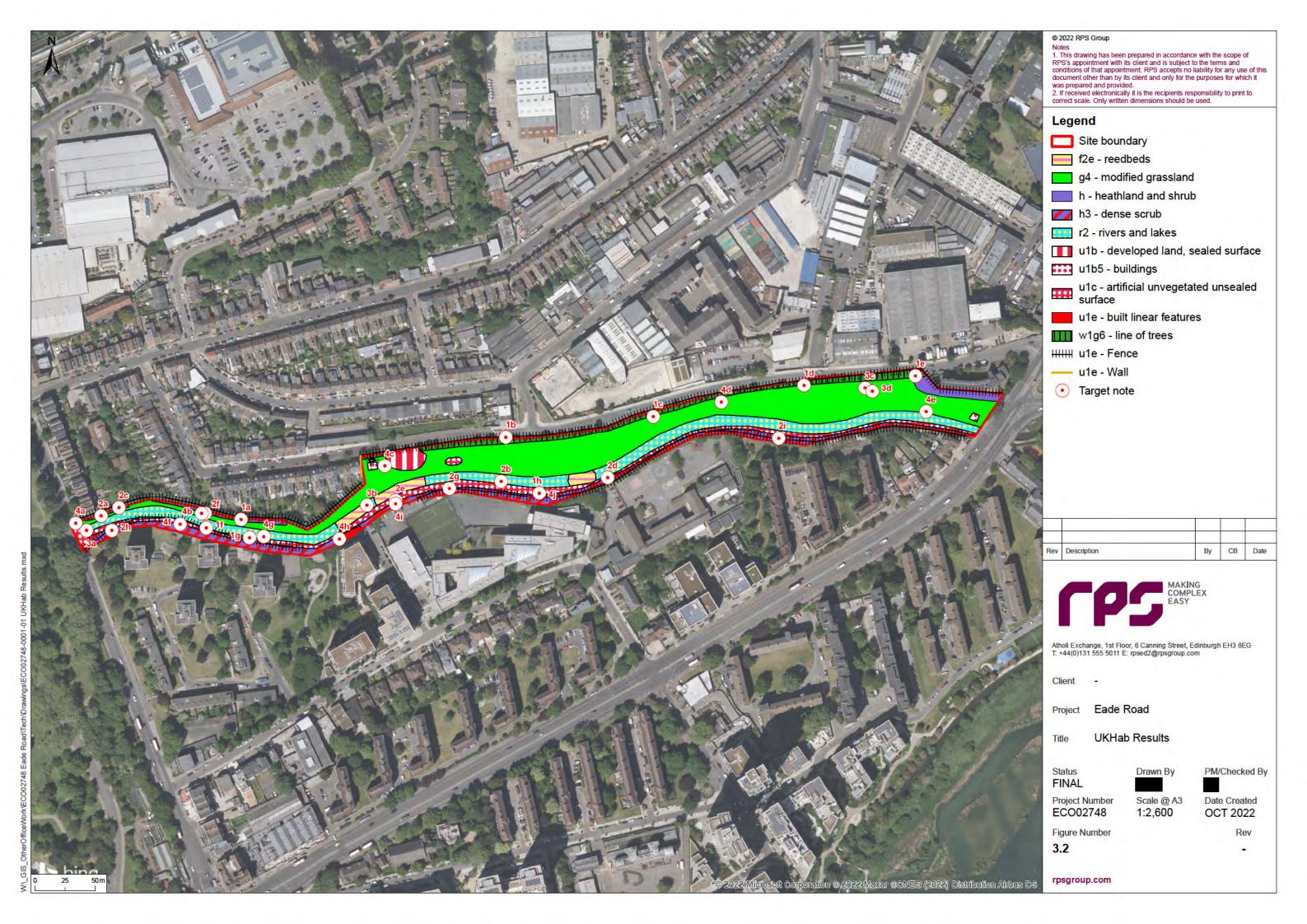


- 3.3.31 The area of grassland on the north side has two areas of slope. The first runs in the middle of the area from west to east at a general slope of 45° sloping down north and the second is a shorter section on the eastern end at a general slope of 60°, sloping down north.
- 3.3.32 The grassland on both northern and southern sides had been cut short right up to the river bank a week's prior to the survey date.



Figure 3.2: Phase 1 Habitat Survey Map

ECO02748 | Eade road | A | 04 August 2022



3.4 Ecological Scoping Survey

Plants

- 3.4.1 No protected species of flora were found on site during the survey.
- 3.4.2 Virginia creeper was found within the north-western area of scrub, as was a bush of mature Japanese knotweed. Virginia creeper was also present in the ditch scrub area.
- 3.4.3 A further area of Japanese knotweed was confirmed by photo evidence to have been present before vegetation was cut the week prior, on the north-eastern side of the riverbank.
- 3.4.4 Bindweed was found on the brick wall on the south-west of the site.
- 3.4.5 Butterfly bush was found on the southern edge within a piece of scrub in the middle section of the site, and further east, also.
- 3.4.6 Cotoneaster spp. was potentially found on the bank of the river to the south-east of the site.
- 3.4.7 Climbing nightshade *Solanum dulcamera* was identified on the south-west area of bramble scrub.

Invertebrates

- 3.4.8 Common Darter was spotted twice during the site walkover. The Common Darter is in the IUCN RedList as Data Deficient but there is no protection in place in the UK or Europe.
- 3.4.9 Several areas of deadwood provide a potential habitat for stag beetle and records have been found within 0.11km of the site.

Amphibians and reptiles

- 3.4.10 No direct evidence was found for the occurrence of amphibians and reptiles during the survey.
- 3.4.11 There was, however, several areas of suitable habitat on site: amenity grassland with a scrub border and several deadwood piles for refuge. Evidence of small mammals (holes, dung, a deceased rat and rabbit bones) were also found, thus providing food for reptiles that may occur on site. Slow worm has been recorded within 0.95 km of the site.
- 3.4.12 The water body on site is likely not suitable for great rested newts due to the minimal access points, flowing water and presence of fish, despite the presence of reedbeds within. According to the data search, there is a pond at Tottenham Railsides, which is within 500m of the site boundary. The pond is separated by rail lines and built-up areas, however, and thereby won't be connected to the site. No further investigation on this pond will be necessary.

- 3.4.13 There is still some potential for other amphibians such as common frogs and common toads due to the presence of the reedbeds. Both common frogs and common toads have been recorded within 0.5km of the site.
- 3.4.14 The site is completely separated from Finsbury Park to the west by Green Lanes bridge and the A105 road with little to no likelihood of reptiles being able to find passage along them. Similarly, the site is separated from a pathway to Woodberry Wetlands by Seven Sisters bridge and the A503 road to the east.
- 3.4.15 On the south-east edge of the site boundary is an area of potential connectivity (open areas in fences, gates and walls) between scrub habitat with deadwood areas of refuge for reptiles and a larger section of trees and grassland by Woodberry Down Community Primary School and commercial properties by Cannock House, Woodberry Down.

Birds

- 3.4.16 A nest was observed during the survey in a holm oak on the south-west side of the site. The use or disuse of the nest could not be ascertained. Another potential nest was also spotted on the northern side. No other nests were identified during the survey.
- 3.4.17 Several trees on site are mature and/or suitable for nesting birds, including along the south perimeter, in the north-western section of the site and several scattered trees along the northern perimeter.
- 3.4.18 A large amount of ivy persists across the site, especially on the south edge of the site. Robins were seen on site and these and other birds can use ivy as a nesting habitat.
- 3.4.19 Several chicks were noted in the reedbeds, including moorhen *Gallinula chloropus* and coot *Fulica atra*, there were several mallards *Anas platyrhyncos* nearby though no chicks were spotted. A family of mute swans *Cygnus olor* was seen commuting through the river. Mammals
- 3.4.20 Several small mammal holes were found during the survey walkover alongside several instances of dung. Potential animal pathways and corridors were noted. A fairly recently deceased rat and some rabbit bones were also found during the survey.

Bats

Roosting

- 3.4.21 A standing deadwood tree has several potential features for bats. Several mature trees on site may also contain potential roost habitat.
- 3.4.22 Bridges on both western and eastern sides of the site provide a potential area for roosts, however the noise and vibrations of the road above will likely demote the bridges as low likelihood.

3.4.23 The wall on the south side of the site provides a multitude of potential for bats, with a large crack in the eastern-most wall and several areas of the wall being covered in ivy and other vegetation also providing potential roosting habitat.

Foraging and Commuting

- 3.4.24 The waterway provides good foraging habitat for bats.
- 3.4.25 The woodland area connected to the site by the south, Finsbury Park to the west and Woodberry Wetlands to the south-east could bring in bats to forage on the site, or the site may be used as a commuting corridor between these sites.

Badgers

3.4.26 No evidence of a badger sett or latrines were found on site during the survey, however multiple pathways for large mammals were available in the bramble scrub on the south perimeter of the site.

Hedgehogs

3.4.27 No direct evidence of hedgehogs was found on site; however, the site provides a good source of foraging for hedgehogs and other small animals and there are several corridors and access points for hedgehogs to gain access to the site on either side of the river. Hedgehogs have been recorded within 0.75km of the site boundary.

Water Voles & Otters

- 3.4.28 No direct evidence for water voles or otters were found during the survey.
- 3.4.29 There is a ditch on the north side of the site and a hole was found on a southern-edge bank alongside several areas of access in the muddy banks. Reedbeds are good habitats for water voles. Water voles have been recorded within 1km of the site.
- 3.4.30 No evidence of otters *Lutra lutra* was recorded within the site boundary, and none have been recorded close-by. There is good habitat for otters on site, however, including reedbeds and the availability of small mammals and nesting waterbirds as food sources. The river may be used as a foraging area and the ditch or areas of scrub on the north-west side could provide areas of refuge, with the site being connected by the river for river-dwelling animals to higher quality habitat.

Hazel Dormouse

3.4.31 No evidence for hazel dormouse *Muscardinus avellanarius* was found on-site during the Ecological Scoping Survey, nor are there any records of hazel dormouse within 2km of the site within the last ten years. Suitable dense scrub habitat found onsite, as well as several areas of broadleaved woodland offsite, suggest that there is potential for hazel dormice to use the site.

4 EVALUATION AND POTENTIAL IMPACTS

4.1 Designated sites

- 4.1.1 The development is occurring on New River, which is a Site of Importance for Nature Conservation (SINC). As such, the local authority should be consulted on the proposals, and an appropriate management and mitigation plan be put in place to ensure that on completion of the works, the site returns to it's original (if not an enhanced) condition.
- 4.1.2 Due to the nature of the works on and near the New River, the development has the potential to affect Woodberry Wetlands Nature Reserve, Finsbury Park, Stoke Newington Reservoirs, Railway Fields Local Nature Reserve and Tottenham Railsides to their connection to the site via this waterbody. Measures must be taken to mitigate the impact of pollution and of temporarily sectioning off the river. Any works on New River could potentially affect communities and populations in these areas due to cutting off potential corridors through habitats, cutting off populations and/or reducing or increasing nutrients and/or pollutants in the water among other potential impacts.

4.2 Habitats

- 4.2.1 Table 4.1 below summarises the habitat types within the site and outlines the potential impacts of the development proposals to each of these habitats.
- 4.2.2 Due to the nature of the works, there is a high likelihood that the river habitat will be affected. What mitigations may need to take place is as yet undetermined and will depend upon Water Vole & Otter survey results.

Table 4.1: Summary of potential habitat impacts

UKHab Code	Habita t Type	Area (m²)	% site	Ecological Importance	Potential impact
R2b	Other	0.54	18.28	High	Nesting birds
	rivers				Aquatic mammals
	and				Invertebrates
	streams				
F2e	Reedbed	0.08	2.76	High	Nesting birds
	S				Aquatic mammals
					Amphibians
					Invertebrates
U1b	Develope	0.05	1.75	N/A	N/A
	d land;				

	sealed				
	surface				
U1b5	Buildings	0.01	0.29	Low	Bats
U1c	Artificial	0.30	10.32	N/A	N/A
	unvegeta				
	ted,				
	unsealed				
	surface				
U1e	Built	0.01	0.27	Low	Nesting birds
	Linear				Bats
	Features				
H3d/h3	Bramble/	0.36	12.22	Moderate	Birds
	dense				Badgers
	Scrub				Mammals
					Reptiles
					Amphibians
					Invertebrates
H3h/h	Mixed	0.06	1.94	Moderate	Badgers
	scrub/				Hedgehogs
	heathlan				Reptiles
	d and				Invertebrates
	scrub				
W1g6	Tree Line	0.19	6.59	Low	Nesting Birds
G4	Modified	1.34	45.58	Low	Invertebrates
	Grasslan				Reptiles
	d				

4.3 Species

Plants

- 4.3.1 Invasive species under the Wildlife and Countryside Act Schedule 9 must be removed.
- 4.3.2 The following plant species considered invasive under the WCA Sch9 have been identified on site during the habitat survey:
- Japanese knotweed
- Virginia creeper
- Cotoneaster (*Cotoneaster spp.*); potential bush on the south-east side of the riverbank.
- 4.3.3 The potential for these species to spread to other areas during the development is low due to the river being drained before any works are to be completed. Upon re-filling, however, seeds may

- be carried along the river to new areas. As such, these species should be responsibly removed before any works are to begin to prevent contamination of areas that will be reconnected to other sites.
- 4.3.4 Japanese Knotweed is a particular threat to riverbanks and urban areas close to them as its dense growth slows water flow and increases the water level, causing flooding. Since the development aims to reduce the risk of flooding in the area, this species should be removed with upmost care.
- 4.3.5 It is recommended that an invasive species management plan be put in place prior to works beginning on site, for more details refer to Section 5.
- 4.3.6 Hedge and greater bindweed as well as Russian vine and butterfly bush were also found during the survey and should be removed if possible.
- 4.3.7 It should be noted that a section of Climbing Nightshade as found on the south-western section of the site; on a pathway frequented by dogwalkers. Nightshade is an invasive species poisonous to dogs if ingested and as such should be removed.

Invertebrates

4.3.8 Common Darter do not breed in flowing water and therefore it is likely they will not be affected by the removal of a small section of New River. They are not considered any further in this assessment

Amphibians

- 4.3.9 Great created newts *Triturus cristatus* are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (and as amended), which affords the species protection under Section 9. The species is also listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2019.
- 4.3.10 A potential pond within 500m of the site boundary is present in the eastern triangle of Tottenham Railsides. This will not require further investigation, due to its separation from the site by railway lines and urban areas. Therefore, there is a low likelihood of such species being present on site and they are not considered any further in this assessment.

Reptiles

- 4.3.11 Reptiles are protected from killing/injury under the Wildlife Countryside Act 1981 (as amended).
- 4.3.12 A fairly large area of suitable habitat does exist on the site and there are larger potential habitats connected to the site to the south. It is likely that the works on site will impact a present reptile population due to the use of machinery and the potential removal of grassland and scrub.

- However, as the impacts to this area of grassland are temporary, it is instead recommended that the habitat be cleared via a sensitive strimming methodology, as opposed to further survey work.
- 4.3.13 Should any scrub or deadwood be moved or removed, a trained Ecologist must be present to check for reptiles immediately before removal and any reptiles found must be translocated to a predetermined area.

Birds

- 4.3.14 Breeding birds are protected by the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to intentionally kill, injure or take the birds or their eggs, or to intentionally destroy or disturb a nest, when it is in use or being built.
- 4.3.15 Moorhen and Coot chicks were identified during the ecology scoping survey in the reedbed habitat, which is due to be removed as part of the development.
- 4.3.16 As the site had moderate potential to support any breeding or nesting birds, no further surveys are required however, the removal of any reedbed, trees, hedgerows or scrub should avoid the bird nesting season (March to August inclusive). If this is not possible removal will occur under the supervision of a suitably qualified ecologist who will check for any active nests. If found to be present, a buffer zone, where no development activities will occur, will be cordoned off by the supervising ecologist until the young have fledged.

Bats

4.3.17 All species of bat present in the UK receive full protection under The Conservation of Habitats and Species (EU Exit) Regulations 2019, and the Wildlife and Countryside Act 1981 (as amended). Several bat species are also listed in Section 41 of the NERC Act 2006. These include the widespread species soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*, and the rarer woodland species such as Bechstein's *Myotis bechsteinii* and barbastelle *Barbastella barbastellus*.

Foraging and commuting

- 4.3.18 The river provides suitable foraging and commuting habitat for bats and the surrounding area on all sides is suitable for foraging and commuting bats that may roost in the nearby residential areas, Finsbury Park or elsewhere.
- 4.3.19 The site is considered moderate value for foraging and commuting due to the nearby woodland areas as well as the mixed and bramble scrub on site, as well as the trees and the river.

- 4.3.20 Several species of bat have been recorded nearby, including common *Nyctalus noctula* and lesser (*Nyctalus leisleri*) noctules, common *Pipistrellus pipistrellus*, and aoprano *Pipistrellus pygmaeus* and Nathisius' *Pipistrellus nathusii* pipistrelles found within 453m of the site.
- 4.3.21 As the proposals present only a temporary impact, no further survey work is recommended, however, sensitive working methodologies (such as cowled lighting etc), should be employed. Recommendations for such are made in Section 5.

Roosting

- 4.3.22 There are multiple trees with potential suitability on the north-western edge of the site as well as along the southern perimeter. Scattered trees along the northern perimeter in the mid-section of the site are potentially too young to contain suitable roosting features but would require PBRA should they be removed or cut back to facilitate the works. A large standing deadwood tree on the south of the site (see Target Note 1h) also requires further investigation should development require it to be removed.
- 4.3.23 Although there were no obvious potential roosting features identified on the buildings on site, it is recommended that the building(s) be accessed internally, and a Preliminary Bat Roost Assessment (PBRA) carried out by a suitably licensed ecologist, should these be demolished.

Badgers & Hedgehogs

- 4.3.24 Badgers are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury.
- 4.3.25 Hedgehogs are protected under Schedule 6 of Section 9 of the Wildlife and Countryside Act 1981 (as amended) and, as such, it is illegal to kill or capture (by certain methods) wild hedgehogs.
- 4.3.26 Any excavations must be covered when works are not occurring to ensure no animals are trapped. Should this not be possible, a means of escaping the hole (a low angle mound, planks etc.) must be put into place when the excavation is not in use, i.e., outside of working hours.
- 4.3.27 Should deadwood and vegetation be removed during the winter, it should be checked for hibernating hedgehogs.
- 4.3.28 Should a badger sett be found during works, work must be stopped, and the sett surveyed before any works can be continued.

Water Voles and Otters

4.3.29 Water voles are protected from killing, injuring, or taking by any method under Section 9 Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

- 4.3.30 Though the bank of the river provides little areas of access, there is suitable reedbed and bramble habitat for water voles with access to further habitats offsite via the river. Records have been found within 1km of the site mid-point and evidence of digging in accessible areas of the water bank have been noted during the ecological scoping survey.
- 4.3.31 A Water Vole survey should be undertaken to ensure the river is not being used by this species before works begin.
- 4.3.32 Otters are protected under Section 9 Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under such legislation, it is an offence to:
 - Kill, injure or handle an otter
 - Disturb an otter in it's place of shelter (holt) or resting
 - Obstruct, damage or destroy the places where otters live
 - Possess, control, transport, sell, exchange, or offer for sale/exchange any live or dead otter or any part of an otter
 - Keep otters in captivity
- 4.3.33 Otters have not been recorded within 2km of the site and no direct evidence was noted during the ecological scoping survey and the man-made New River does not connect to any aquatic water ecosystems. Otters are unlikely to be found in this area, however the site can be checked for signs during the water vole survey to provide further information.

Other mammals

- 4.3.34 Hazel Dormouse *Muscardinus avellanarius* is fully protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2019. Dense scrub is found on site and a connected broadleaved woodland is found offsite to the south-east as well as in Finsbury Park to the west.
- 4.3.35 No hazel dormice have been recorded within 2km of the site, however, so no further investigation is required. Should vegetation removal in the suitable habitats be required, however, a suitably licensed Ecological Clerk of Works will be necessary to check for hazel dormice before said vegetation is removed.

5 MITIGATION AND ENHANCEMENT

5.1 Designated sites

- 5.1.1 Work being done on New River will require the section of the river to be sectioned off, preventing any potential pollution events as well as allowing the other sections of the river to continue to function. The section cordoned off will be minimal or be isolated for as minimal a time as possible to prevent animals being unable to reach other sections of habitat through the site via the river. Due to the site being at the eastern end of the river, the impact of shutting off a section has less potential to damage animals and habitats than a middle section of the river, however it will still separate Woodberry Wetlands from Finsbury Park.
- 5.1.2 As the site is designated as a Site of Importance for Nature Conservation, the LPA should be made aware of the works proposed on the site, and appropriate mitigation and enhancement measures included.

5.2 Habitats

- 5.2.1 As said above, the works temporarily will involve draining the river for the period of the desilting works. As such, measures must be taken to ensure minimal damage to animals that may use the river as a corridor between habitats as well as a habitat in that particular section, as well.
- 5.2.2 Reed beds will need to be removed in order to excavate and reline the section of the river that runs through the site. This removal will need to take into consideration its impact on birds, amphibians, and aquatic mammals (see Section 5.3).
- 5.2.3 Although most of the habitats fail to qualify for specific protection under Section 41 of the NERC act, it is recommended that they are all retained and protected throughout any re-development. This protection could involve designated buffer zones from the habitat marked out by Heras fencing, details of which would be provided in a Construction and Environment Management Plan (CEMP). The production of a Landscape and Ecology Management Plan (LEMP) would ensure the long-term management of these habitats and outline ways in which they could be enhanced for their contribution to ecology.

5.3 Species

Plants

5.3.1 Several invasive species included in the Wildlife and Countryside Act 1981 (as amended) are on site, including Virginia creeper and Japanese knotweed. Other invasive species, of which removal is recommended, include hedge bindweed, greater bindweed, and Russian vine.

5.3.2 Climbing nightshade is found on the south-west end of the site. This plant is poisonous to dogs and its removal recommended due to the frequent use of the area by dogwalkers. The amount of climbing nightshade is minimal and therefore simple mechanical removal is all that is required, with care taken to remove the whole plant.

Invertebrates

- 5.3.3 By improving the water quality of the New River, common darter populations may be positively impacted. This action also encourages other wildlife such as nesting birds, bats, amphibians, and water voles.
- 5.3.4 Should any trees be removed, debris can be left on site as a new habitat for Stag Beetles and other invertebrates, as well as creating refuges for amphibians, reptiles, and small mammals.

Reptiles

- 5.3.5 In order to ensure no reptiles are harmed, the grassland should be cleared sensitively. This would involve a two-stage strim, to move any reptiles present towards the retained areas of habitat.
- 5.3.6 This would be undertaken when reptiles are active (March October) and overseen by a suitably qualified ecologist. The first cut would be to circa 10-15cm in height, and will be carried out directionally, towards the retained habitat, to 'encourage' any species present to move. The second cut (to ground level) will be undertaken circa 24 hours after the first cut. Any features of high value for reptiles (such as log piles) should be dismantled by hand.

Birds

- 5.3.7 Breeding birds were seen within the reedbeds, including Moorhen and Coot. Reedbed removal will need to take place outside the breeding season (which is between April and October inclusive). If this is not possible a pre-check by a competent ecologist as described in Section 4 will confirm the presence/absence of nesting birds and should be conducted immediately prior to any demolition (which will then take place with 24 hours of the ecologist confirming the absence of nesting birds).
- 5.3.8 Nests were identified in two trees during the ecological scoping survey. Should any trees be removed during the works, they must first undergo a nesting bird survey in which a suitably trained ecologist will check for active nests. This survey must be undertaken no more than 24 hours before tree removal.

Mammals

Bats - Roosting

5.3.9 B1, B2, Wall 1, Wall 2 and all of the trees on site will require a Preliminary Bat Roost Assessment (PBRA) if they are to be removed or affected by the development. Should any of these structures be determined to have higher than low roost potential, emergence/re-entry surveys will need to be undertaken.

Bats - Commuting and Foraging

- 5.3.10 Given the temporary nature of the works, further survey work is not considered to be needed, However, the following is recommended, to limit the impact of disturbance from lighting:
 - · Avoid illumination of retained boundary features where possible;
 - No direct illumination of any new roost entrances (such as bat boxes);
 - Use light sources that emit minimal ultraviolet light and avoid white or blue wavelengths
 to avoid attracting lots of insects (attracting insects to lamps may reduce their abundance
 in darker foraging areas favoured by bats);
 - 2700 Kelvin colour temperature LED floodlights delivering warm white spectrum lighting;
 - Back shields and side shields added to all AMNIS LED floodlights, to reduce spill light and back light as much as practically possible; and
 - LED floodlights with >550nm peak wavelengths to avoid the component of light most disturbing to bats (Stone, 2012).

Water vole

- 5.3.11 It is recommended that a water vole survey be undertaken prior to works beginning on site. Should water vole surveys confirm presence of a population on site, an application for license A29 to trap and remove (translocate) water voles from the site or have an ecologist with a class CL31 to displace water voles for development. Opportunities to enhance the site for water vole would be outlined in the Ecology Survey Report.
- 5.3.12 The presence of other mammals of conservation interest on site do not require further survey work however their protection throughout the re-development will be considered in the CEMP.

5.4 Enhancement opportunities

5.4.1 An assessment of Biodiversity Net Gain (BNG) of the proposed development is recommended in line with local planning policy.

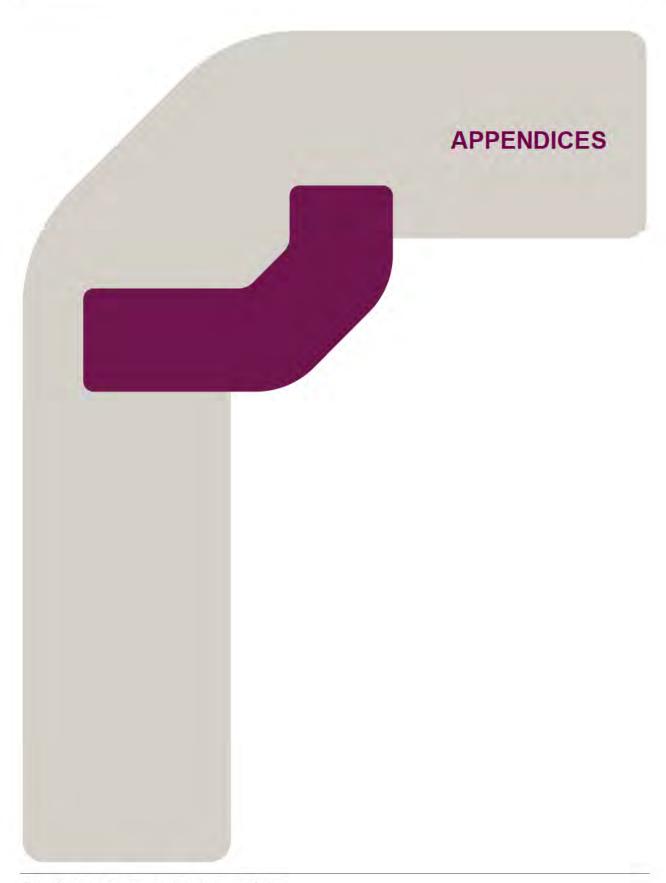
- 5.4.2 In addition to the mitigation measures outlined above, opportunities for enhancements include:
 - provide areas of embankment that encourage water vole to enter, as well as buffers of longer grass around the embankment to further encourage water vole activity.
 - certain management techniques can also enhance the embankment for water voles, invertebrates, bats, birds and amphibians. For example, reducing the amount of cutting of the grass, maintaining 15cm of vegetation from the embankement, removing vegetation in the late summer if needed. Long-term stability of water levels also enhances the habitat for several animal species.
 - provision of native species in landscaping schemes including flower-, berry- and fruit-bearing species to enhance the habitat for birds, bats and invertebrates;
 - provision of bee bricks to enhance the habitat for solitary bee species;
 - provision of hibernacula's for herpetofauna and/or hedgehogs can be created by reusing materials on site; and
 - night scented flowering plants, to encourage foraging bats to use the site, post-development.

6 CONCLUSIONS

- 6.1.1 There are four statutory and twenty-one non-statutory designated sites for nature conservation value within 2km of the site. The removal of the river as a habitat and corridor between habitats may negatively impact many animals, especially water vole and breeding birds. Mitigations for this will depend on how long the river is out of action. Pollutants that may enter the river before and after it is reintegrated with the wider landscape should be minimised as much as possible via good practice guidelines.
- 6.1.2 New River and the reedbeds within are UKBAP habitats and therefore appropriate mitigations are required to ensure the habitat is not lost, or is reformed to the same or greater quality, during the project.
- 6.1.3 There are two buildings on site, two walls and two bridges. Should these be impacted by the development in any way, they should be subject to a PBRA.
- 6.1.4 Nesting bird checks by an experienced ecologist are recommended prior to vegetation clearance or demolition between April and October (inclusive) and if any active nests are found, an appropriate buffer installed until eggs have hatched and chicks fully fledged to avoid disturbance. An Ecological Clerk of Works will be required should any vegetation be removed to check for dormice, reptiles, and amphibians. Should any animals be found, they will be translocated to a predetermined area; ideally an unimpacted area on site.
- 6.1.5 During the construction phase good practice guidelines should be adhered to, to ensure that no small mammals are harmed, and that lighting does not disturb the surrounding habitats potential to support foraging bats.
- 6.1.6 Surveys will be required for water voles, after which detailed recommendations for the site will be outlined in the Ecological Enhancement Strategy following said recommended Phase 2 Surveys.

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Appendix A: Relevant Legislation

Great Crested Newts

Great Created Newts *Triturus cristatus* are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (and as amended), which affords the species protection under Section 9. The species is also listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.) a Great Crested Newt;
- possess a Great Crested Newt;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by Great
 Crested Newt for shelter or protection, or disturb any animal occupying such a structure or place; and
 sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative)
 or advertise for buying or selling such things.

Great Crested Newts are also listed on the UKBAP as a Priority Species and are listed as a species of principal importance for biodiversity in England & Wales under Section 41 of the Natural Environment & Rural Communities Act (2006).

Reptiles

All common UK reptile species (Adder Vipera berus, Grass Snake Natrix natrix, Common Lizard Zootoca vivipara and Slow Worm Anguis fragilis) are protected through part of Section 9(1 and 5) of the Wildlife & Countryside Act 1981 (as amended). This prohibits:

- Intentional or reckless injuring or killing;
- Selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or
- Publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or intending to buy or sell, any of those things.

Birds

All birds, their nests and eggs are afforded protection under the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. It is an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built; and
- intentionally take or destroy the egg of any wild bird.

Schedule 1 birds cannot be intentionally or recklessly disturbed when nesting and there are increased penalties for doing so. Licences can be issued to visit the nests of such birds for conservation, scientific or photographic purposes but not to allow disturbance during a development even in circumstances where that development is fully authorised by consents such as a valid planning permission.

Bats

All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981, as updated by the Countryside and Rights of Way Act 2000. All British bats are also included on Schedule 2 of The Conservation of Habitats and Species Regulations 2017 as European Protected Species. It is an offence to:

- intentionally or recklessly kill, injure or capture bats;
- deliberately or recklessly disturb bats (whether in a roost or not); and
- damage, destroy or obstruct access to bat roosts

A roost is defined as 'any structure or place which [a bat] uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of survey.

A licence will therefore be required by those who carry out any operation that would otherwise result in offences being committed.

The following bat species are listed as being of principal importance for the conservation of biodiversity in England, (commonly referred to as UKBAP Priority species): Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Long-eared, Greater Horseshoe, and Lesser Horseshoe.

Badger

Badgers are protected under the Protection of Badgers Act 1992. This act is based on the need to protect badgers from baiting and deliberate harm or injury. The act makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so;
- Intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

A sett is defined as "any structure or place that displays signs indicating current use by a badger".

Dormouse

Hazel Dormouse *Muscardinus avellanarius* is fully protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. The Regulations prohibit:

• Intentionally, recklessly or deliberately kill, injure or take a Dormouse;

- The deliberate disturbance of this species in such a way as to be significantly likely to affect:
 - Their ability of to survive, hibernate, migrate, breed, or rear or nurture their young; or;
 - The local distribution or abundance of Dormice.
- Damage or destruction of a breeding site or resting place (nest);
- The possession or transport of Dormice or any other part of.

Dormice are also protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion in Schedule 5. Under the Act, they are protected from:

- Intentional or reckless disturbance (at any level);
- Obstruction of access to any place of shelter, breeding or rest;
- Selling, bartering or exchange of these species, or parts of.

Offences can be deliberate, intentional or reckless and penalties for any of the above include fines of up to £5k and imprisonment of up to 6 months, per animal affected.

Dormice are also listed on Section 41 of the NERC Act 2006 as a Species of Principal Importance; national objectives & targets include the maintenance of the geographical range and viability of existing Dormice populations to ensure that it remains in favourable conservation status.

Water Vole and Otter

Water vole and Otter and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended). Under this legislation it is an offence to:

- Capture, kill or injure a Water Vole or Otter;
- Damage, destroy or obstruct access to a breeding site or resting place (i.e. burrow);
- Disturb a Water Vole or Otter whilst in a place of shelter;
- Possess or control a Water Vole or Otter (live or dead), any part of a Water Vole or Otter or anything derived from a Water Vole or Otter;
- Sell, barter or exchange a Water Vole or Otter (live or dead), any part of a Water Vole or Otter or anything derived from a Water Vole or Otter; and / or
- Advertise or offer for sale, barter or exchange a Water Vole or Otter (live or dead), any part of a water vole or Otter or anything derived from a Water Vole or Otter.

Offences can result from intentional or reckless actions. Penalties include fines of up to £5000 and / or imprisonment for up to six months, per offence. Under certain circumstances a licence can be granted by Natural England to permit activities that would otherwise constitute an offence.

Otters have additional protection, being listed as a European Protected Species (EPS) under Conservation of Habitats and Species Regulations 2017. This makes it an offence to deliberately or recklessly:

- Capture, injure or kill an Otter;
- Harass an Otter or group of Otters;
- Disturb an Otter in a holt or any other structure or place it uses for shelter or protection;
- Disturb an Otter while it is rearing or otherwise caring for its young;
- Obstruct access to a holt or other structure or place Otters use for shelter or protection or to otherwise deny the animal use of that place;
- Disturb an Otter in a manner that is, or in circumstances which are, likely to significantly affect the local distribution or abundance of the species;
- Disturb an Otter in a manner that is, or in circumstances which are, likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young.

It is also an offence to:

- Damage or destroy a breeding site or resting place of such an animal (note that this does not need to be deliberate or reckless to constitute an offence);
- Keep, transport, sell or exchange or offer for sale or exchange any wild Otter or any part or derivative of one (if obtained after 10 June 1994).

Both species are listed as Species of Principal Importance within S41 of the NERC Act 2006.

Appendix B: Site Photographs (Preliminary Bat Roost Assessment)

Feature name	Туре	Photograph	Building / tree classification	Further Surveys required
Building 1	Mortared brick building on the northern perimeter of the site, near the main entrance.		Low suitability	Not required unless building impacted by works
Building 2	Small, one storey shed, constructed of brick. Heavily covered with vegetation, which could be obscuring rosoting features.		Negligible	Not required unless building impacted by works
Borehole covers	Two mortared brick structures covering existing boreholes on the northeastern end of the site.		Low suitability I	Not required unless building impacted by works

Deadwood Tree	Split limbs, woodpecker holes, cracks in the trunk and braches, all whcih could be providing roosting features		High suitability	Not required unless building impacted by works
Wall North	A brick wall containing potential roosting features separating the site from Seven Sisters Bridge on the east.	Neg Control of the Co	Moderate suitability	Not required unless building impacted by works
Walls South			Moderate suitability	Not required unless building impacted by works



Appendix C: Site Photographs

Habitat	Photograph
New River	
Reedbeds	Eastern section



Western section

Artificial unvegetated, unsealed surface



New River Path

Bramble Scrub



South bramble scrub

Mixed Scrub



North-east mixed scrub



North-east mixed scrub further around



North-west

Tree Line



Northern perimeter tree-line



North-eastern tree line

Modified Grassland



Modified grassland view West to East



Modified grassland view East to West

Appendix D: Target Notes

Reference in Figure 3.2	Description	Photo evidence
1a	Chopped/fallen small logs	
1b	Short, small, standing tree	

1c	2 x short stumps	
1d	Fallen hollow log, medium sized	
1e	Man-made wood plank	
1f	Medium stump, short	
1g	Very large chopped log and pile of medium logs	

1h

Standing tree, hollow at the bottom



Appendix E: Invasive Species

	Photo evidence
A large bush of Japanese Knotweed on the north-west side of the site, also containing Greater Bindweed and Virginia Creeper	
	Knotweed on the north-west side of the site, also containing Greater

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2b Large area of Virginia Creeper on the north-west side of the site within the Japanese Knotweed. A large Butterfly Bush on the south area of mixed scrub 2c and 2d

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