



Ecological Impact Assessment

**World of Pets, Thorley Lane, Timperley**



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## Summary

- S.1. This report has been prepared by Tyler Grange Group Ltd. on behalf of Harlex Property. It sets out the findings of an ecological assessment report of a parcel of land at World of Pets, Thorley Lane, Timperley (OS Grid Reference SJ 7883 8786) hereafter referred to as the 'Site'.
- S.2. The site comprises a working garden centre with multiple active and disused buildings, outdoor display areas (including ponds), external storage areas and sections of managed and unmanaged semi-natural habitat.
- S.3. Habitats present within the site that are of local and site ecological importance (hedgerow, trees and ponds) have been retained in the proposed development layout where possible and the landscaping proposals will maximise use of native species or those with wildlife benefits. The potential to enhance the overall biodiversity of the site exists and measure have been suggested and incorporated within the landscape design which help to support the aims of the local planning policies and LBAP.
- S.4. Surveys for roosting bats, great crested newt, water vole and otter undertaken in 2019, in accordance with standard guidance recorded no evidence of these species within the site.
- S.5. Invasive non-native species are present on the site (Himalayan balsam *Impatiens glandulifera*, giant hogweed *Heracleum mantegazzianum* and Japanese knotweed *Fallopia japonica*) and an appropriate management strategy should be devised and implemented prior to the commencement of construction and site clearance activities to prevent their spread beyond and within the site.
- S.6. Habitat suitable for nesting birds is present throughout the site. Clearance of trees, other woody vegetation and buildings should be timed to avoid the nesting bird season (generally March to August, inclusive), or be preceded by a check for nesting birds by a suitably qualified ecologist).
- S.7. An update badger survey should be undertaken prior to the commencement of any site clearance activities to confirm the continued absence of setts from the site.
- S.8. The detailed design of the layout should include provisions to maintain connectivity throughout the site for hedgehog (i.e. hedgehog highways within garden fencing).
- S.9. The mitigation and enhancement strategy should be controlled by appropriately worded planning controls devised to:
- Secure ecological inputs to a Construction and Environmental Management Plan (CEMP) to mitigate potential impacts to non-statutory sites, habitats and protected or priority species (badger, nesting birds, amphibians, hedgehog) during construction and site clearance;
  - Secure a sensitively designed lighting scheme to mitigate potential impacts to foraging and commuting bats; and
  - Secure the provision and implementation of a Landscape and Ecological Management Plan (LEMP) detailing measures for management of retained and newly created habitats, and enhancements for protected and priority species (bats, nesting birds), to ensure biodiversity benefits are maximised in the long term.

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## Section 1: Introduction

- 1.1. This report has been prepared by Tyler Grange Group Ltd. on behalf of Harlex Property. It sets out the findings of an Ecological Impact Assessment in relation to proposed residential development of land at World of Pets and Leisure, Thorley Lane, Timperley (hereafter referred to as 'the site'), the extent of which is denoted by the red line boundary on **Plan 1** (Habitat Features Plan 12123/P02a).
- 1.2. The site is located on the edge of the settlement of Timperley, Trafford, around OS grid reference SJ 78858 87877, and extends to approximately 2.9 hectares.
- 1.3. The planning application for the site will seek outline planning permission for up to 116 residential dwellings, with all matters reserved except for access.
- 1.4. This report sets out the ecological issues and opportunities to be considered in respect of the planning application and aims to:
  - Using available background data and results of field surveys, describe and evaluate the ecological resources present within the likely 'Zone of Influence' (Zol)<sup>1</sup> of the proposed development;
  - Assess ecological issues and opportunities as a result of development of the site; and
  - Where appropriate, describe mitigation and enhancement proposals to ensure conformity with planning policy and legislation.

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<sup>1</sup> Defined as the areas/resources that may be affected by the biophysical changes caused by activities associated with a project  
World of Pets and Leisure, Thorley Lane  
Ecological Impact Assessment

## Section 2: Methodology

### Scope of Assessment

- 2.1 This report follows the guidance set out in the Chartered Institute of Ecologists and Environmental Management (CIEEM) Guidance on Ecological Impact Assessment (EcIA)<sup>2</sup>.
- 2.2 The extent of potential ecological effects which could arise from the proposed development were determined by undertaking a desk-based assessment of available records and published sources, together with an initial site survey, followed by dedicated species surveys. With this information, the 'Zone of Influence' (Zoi) of the proposed development was established, together with potential ecological effects, opportunities and any further work, such as detailed surveys, that might be necessary to inform detailed development designs and requirements for mitigation.

### Data Search

- 2.3 A desk-based study was undertaken to identify statutory and non-statutory nature conservation designations and protected species records within 2km of the site and relevant planning policies. The following sources were used:
- The data search was undertaken in April 2019 for a 10km radius around the site for European statutory sites, a 2km radius for national statutory and non-statutory sites and a 1km radius for protected and priority<sup>3</sup> species records. The data search was conducted by inspecting the Multi Agency Geographic Information for the Countryside website ([www.magic.defra.gov.uk](http://www.magic.defra.gov.uk));
  - Records of protected species and other species of nature conservation importance within 2km of the site were obtained from Greater Manchester Local Records Centre in April 2019; and
  - Local Planning policies from the Local Plan (adopted Trafford Council January 2012) were checked to identify local planning policies which need to be considered as part of the development of the site (see **Appendix 1**).

### Extended Phase 1 Habitat Survey

- 2.4 An 'extended' Phase 1 habitat survey of the site was initially undertaken on 22<sup>nd</sup> March 2019 by Steven Coyne (Ecological Consultant, Tyler Grange), an experienced field ecologist and full member of CIEEM. Weather conditions on the day of the survey were overcast, dry and 11°C with a moderate breeze.
- 2.5 The survey broadly followed the methodology set out in guidance from the Joint Nature Conservation Committee (JNCC) for extended Phase 1 habitat survey<sup>5</sup>. This method of survey provides information on

<sup>2</sup> Chartered Institute for Ecology and Environmental Management. *Guidelines for Ecological Impact Assessment in the UK and Ireland*. January 2016.

<sup>3</sup> UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed at Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs.

<sup>4</sup> Accessed April 2019.

<sup>5</sup> Joint Nature Conservation Committee, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*.

habitats and assesses the potential for legally protected or otherwise notable species to occur in and adjacent to the site and allows the ecological value of resources to be determined.

- 2.6 The vegetation composition of the different habitats within the site was defined using the DAFOR scale, whereby D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare.

## Badger Survey

- 2.7 A detailed badger survey was conducted at the same time as the extended Phase 1 habitat survey in 2019 and comprised a thorough inspection for evidence of badgers both inside the site and within 30m of its boundary where views/access permitted. Typical field evidence of badger which was searched for comprises:

- Setts;
- Day nests;
- Paw prints;
- Paths/runs;
- Hairs caught in barbed wire

## Detailed Protected Species Surveys

- 2.8 Surveys for bats, great crested newts (GCN), water vole and otter were undertaken to inform the Ecological Impact Assessment, methodologies of which are provided in the relevant protected species reports: **Appendices 2 – 4**, attached to this report.

## Evaluation

- 2.9 The habitats and species in this ecological appraisal were evaluated using published guidance produced by CIEEM<sup>6</sup>. The level of value of specific ecological receptors is assigned using a geographic frame of reference, i.e. international value being most important, then national, regional, county, local and lastly, within the context of the site itself.
- 2.10 Value judgements are based on various characteristics that can be used to identify ecological resources or features likely to be important in terms of biodiversity. These include site designations (such as Sites of Special Scientific Interest (SSSIs)), or for undesignated features, the size, conservation status (locally, nationally or internationally) and the quality of the ecological resource. In terms of the latter, 'quality' can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats), or species populations or assemblages.

## Impact Assessment

- 2.11 Impacts can be direct or indirect, permanent or temporary, negative or positive. Impacts may include habitat loss, habitat degradation, fragmentation and isolation of habitats, mortality and disturbance to species.

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<sup>6</sup> CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

- 2.12 The significance of an adverse or beneficial impact is the product of the magnitude of the impact and the value or sensitivity of the ecological receptors affected. Current guidance on ecological impact assessment<sup>7</sup> provides a complex framework for the consideration of impacts to ecological receptors and the reader is referred to the actual guidance for full details. The importance of ecological receptors is given a geographical reference and any impacts are assessed accordingly. Where appropriate, details of proposed mitigation measures are considered when determining residual impacts to ecological features.

## Quality Assurance

- 2.13 All ecologists at Tyler Grange are members of the Chartered Institute of Ecology and Environmental Management (CIEEM) and abide by the Institute's code of conduct.

## Limitations

- 2.14 The findings of this report are valid at the time of writing. Owing to the dynamic nature of ecological resources, if more than 12 months have elapsed since the report was written, advice should be sought to determine whether update work is required. The findings of the report should not be relied upon without this advice.
- 2.15 Limitations regarding individual surveys for protected surveys are provided in **Appendices 2 – 4** of this report.

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<sup>7</sup> CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester



## Section 3: Ecological Resources

### Site Context

- 3.1. The site extends to approximately 2.9ha and comprises a former garden centre with associated grounds. Habitats within the site comprised amenity grassland, buildings, grassland, scrub, hedgerow, hardstanding, ponds, running water and scattered trees and scrub. The site is located to the west of Thorley lane and is surrounded by residential housing to the west and north. The southern area of the site is identified as part of a wildlife corridor under ENV10 of the largely superseded Unitary Development Plan, which has been incorporated into policy R2 of the Local Plan (see **Plan 1**).

### Nature Conservation Designations

#### *Statutory Sites*

- 3.2. Desk study identified two European sites within 10km of the site; Rostherne Mere (RAMSAR, Site of Special Scientific Interest (SSSI) and National Nature Reserve (NNR) -5.1km to SW) and Midland's Meres and Mosses Phase 1 (RAMSAR – 7.5km to SW).
- 3.3. There are no nationally designated sites located within 2km of the site.

#### *Non-Statutory (Local) Sites*

- 3.4. There are two non-statutory designated Sites of Biological Importance (SBI) within 2km of the site - Davenport Green SBI, located 850m south-east of the site, and King George V Pool, located 1.1 km west of the site.
- 3.5. The southern part of the site is also identified as part of a wildlife corridor under ENV10 of the largely superseded Unitary Development Plan, which has been incorporated into Policy R2 of the Local Plan – see **Plan 1**.

### Phase 1 Habitat Survey Results

#### *Habitats within the Site*

- 3.6. The habitat features recorded within the site are illustrated on **Plan 1**. A photographic record containing representative pictures of the habitats recorded during the Phase 1 habitat survey in 2019 is provided in **Appendix 5**.

#### **Amenity Grassland (Photograph 1)**

- 3.7. A large area of amenity grassland, maintained as mown lawn covers the south-east portion of the site, with additional, smaller areas of the same habitat present in the far north of the site. The species assemblage was poor, being dominated by perennial rye-grass *Lolium perenne* (D), with dandelion *Taraxacum officinale* agg (F), red dead-nettle *Lamium purpureum* (O), and cranesbill sp. *Geranium* sp. (O) being noted in the sward.

#### **Buildings and Hardstanding (Photograph 2)**

- 3.8. Five buildings are present within the site boundary, of varying age and construction. These included the main garden centre building, a large greenhouse, and workshops/storage sheds. Descriptions and additional photographs of the buildings are provided **Appendix 2** in relation to bats.

- 3.9. Large areas of hardstanding forming access roads, carparking and external storage space are also present throughout the site.

#### **Grassland (Photograph 3)**

- 3.10. An area of species-poor semi-improved grassland is present in the west of the site which is now unmanaged but likely to have previously been managed as amenity, and is becoming colonised by ruderals. Grass species present included perennial rye-grass (D) and cocks-foot *Dactylis glomerata* (F). Ruderals beginning to colonise the area included common nettle *Urtica dioica* (F), common hogweed *Heracleum sphondylium* (O), Himalayan balsam *Impatiens glandulifera* (O), giant hogweed *Heracleum mantegazzianum* (R) and broad-leaved dock *Rumex obtusifolius* (O).

#### **Hedgerow (Photograph 4)**

- 3.11. A species-poor hedgerow runs parallel to the western boundary of the site. It was dominated by hawthorn *Crataegus monogyna* (D), with elder *Sambucus nigra* (O), cherry *Prunus sp.* (O), flowering currant *Ribes sanguineum* (O), and ivy *Hedera helix* (F) present to a lesser extent. The hedgerow had not been recently managed and was becoming overgrown. It measured approximately 5m high by 2m wide.

#### **Invasive Non-native Plants (Photograph 5)**

- 3.12. Japanese knotweed (O), Himalayan balsam (F) and giant hogweed (R) were all present within the site boundary, mostly towards the south and west of the site amongst unmanaged grassland and ruderal vegetation (refer to **Plan 1** for approximate locations).

#### **Ponds (Photograph 6)**

- 3.13. Several ponds are present within the site boundary. Ponds P1 – P6 and P8 – P10 are located within the garden centre area of the site and are all ornamental ponds of various designs, mostly with pond liners, shallow water and limited shading vegetation.
- 3.14. Pond P7 is a natural pond which included areas of seasonal inundation amongst scrub habitat, as well as deeper, more permanent sections. The surface of the permanent sections was partially covered with duckweed *Lemna minor* (D), with some water mint *Mentha aquatica* (F) also present. The pond was significantly shaded to the north and west by scrub, with ruderal vegetation present on other banks.
- 3.15. Further details and photographs of the ponds are provided in **Appendix 3** in relation to GCN.

#### **Scattered trees and scrub (Photograph 7)**

- 3.16. Well-established scattered scrub and scattered trees were present throughout the ephemeral and rough grassland areas of the site, with species including hawthorn, holly *Ilex europaeus*, pedunculate oak *Quercus robur*, grey willow *Salix uratus*, elder, alder *Alnus glutinosa* and sycamore *Acer pseudoplatanus*.
- 3.17. An area of dense bramble *Rubus fruticosus agg.* (D) scrub was also present around building B1 in the north of the site.

#### **Tall Ruderal (Photograph 8)**

- 3.18. The southern part of the site is unmanaged and was dominated by tall ruderal vegetation including Himalayan balsam (D), common nettle (A), common hogweed (F), broad-leaved dock (O) and Japanese knotweed (R) with some wild garlic *Alium ursinum* (R) and cleavers *Galium aparine* (O) also present. Some areas of this habitat were shaded by the scattered scrub and trees described above.

### Habitats Adjacent to the Site

#### Running Water (Photograph 9)

- 3.19. Timperley Brook runs east to west, from a culvert underneath Thorley Lane, just beyond the southern boundary of the site.

## Protected and Notable Species

- 3.20. Faunal species or groups that have been considered in this assessment are summarised in Table 3.1 below. Details of records of protected species received from GMLRC (within 2km for bats and 1km for all other species) and those listed within UK Biodiversity Action Plans (UK BAP) and the Manchester Local BAP are also summarised. Full details of the 2019 GCN, bats and water vole surveys have been provided in **Appendix 2 – 4** of this report. A summary of the survey findings to date in relation to each species that has been considered is provided in Table 3.3 below.

**Table 3.1: Fauna considered as part of this appraisal, within 2km of the site.**

Species/Group	Presence of (or potential for) protected/notable species at the Site N.B. distance measured from Google earth.
Badger <i>Meles meles</i>	No records of badger were returned by GMLRC.  No setts recorded within site or within 30m of its boundary during survey conducted during Extended Phase 1 habitat survey.
Bats	GMLRC returned records of common pipistrelle <i>Pipistrellus pipistrellus</i> , soprano pipistrelle <i>P. pygmaeus</i> , brown long-eared bat <i>Plecotus 11uratus</i> , Natterer's bat <i>Myotis nattereri</i> and noctule <i>Nyctalus noctule</i> .  Three buildings (B1 – B3) were assessed as providing 'low' bat roost potential; further survey of buildings confirmed the likely absence of roosting bats. One tree within the site boundary has 'moderate' potential to support roosting bats but is unaffected by development proposals. See <b>Appendix 2</b> for full details.  Habitats within and adjacent to the site, particularly boundary features such as the hedgerow and adjacent Timperley Brook, as well as ponds and scattered scrub/trees have the potential to support commuting and foraging bats. A low level of activity by common pipistrelles was recorded in the vicinity of the buildings during the bat roost surveys.
Birds	GMLRC returned records of birds including several Schedule 1 species and species of Conservation Concern. Of these species, however, those relevant to the site (i.e. in terms of the presence of suitable nesting/foraging habitat) are bullfinch <i>Pyrrhula pyrrhula</i> , dunnock <i>Prunella modularis</i> , house sparrow <i>Passer domesticus</i> , song thrush <i>Turdus philomelos</i> and starling <i>Sturnus vulgaris</i> .  The site contains a narrow range of habitats which could be used for nesting by the species discussed above, along with a range of other common and widespread species.

Species/Group	Presence of (or potential for) protected/notable species at the Site N.B. distance measured from Google earth.
Great Crested Newt (GCN) and other Amphibians	<p>GLMRC returned nine records of GCN with the closest being at a distance of 950m south-east of the site.</p> <p>GCN presence/absence surveys of ponds within the site undertaken in spring 2019 recorded no GCN present and concluded that this species is likely to be absent from the site.</p> <p>Small populations of other amphibians – smooth newt <i>Lissotriton vulgaris</i>, palmate newt <i>Lissotriton helveticus</i> common frog <i>Rana temporaria</i> – were recorded. See <b>Appendix 3</b> for full details.</p>
Reptiles	<p>GMLRC returned no records of this species group within the study area.</p> <p>The site contains very minimal habitat to support reptiles and the wider landscape (i.e. urban-suburban) is largely unsuitable for this species, and therefore it is considered highly unlikely that reptiles are present within the site.</p>
Water Vole and Otter	<p>GMLRC returned no records of either species within the study area.</p> <p>Timperley Brook runs east to west adjacent to the southern boundary of the site. During a detailed survey of the watercourse, no evidence of either species was recorded. See <b>Appendix 4</b> for full details.</p>
Others	<p>GMLRC returned one record of hedgehog <i>Erinaceus europaeus</i> at a distance of 500m north of the site, and one record of polecat <i>Mustela putorius</i> 800m south of the site. Habitats within the site including scrub, rough grassland and ruderals provide suitable potential habitat for these species.</p>

## Evaluation

- 3.21. Table 3.2 below summarises the value of ecological resources within the Zol of the proposals, along with any protection offered by relevant legal and planning policy (see **Appendix 1**).

**Table 3.2: Summary of value of ecological resources and respective legal and policy protection.**

Resource	Evaluation	Policy / Legal Protection
<i>Statutory and non-statutory nature conservation designations</i>		
Rostherne Mere RAMSAR / SSSI / NNR + Midlands Meres and Mosses (Tatton Mere) RAMSAR	These sites are of <b>international importance</b> by virtue of their RAMSAR designation.	CHSR WCA



Resource	Evaluation	Policy / Legal Protection
Davenport Green SBI + King George V Pool SBI	These sites are of <b>county importance</b> within Greater Manchester.	LPP R2
Wildlife Corridor	This area of the site is considered to be of <b>local ecological importance</b> .	Local Policy R2 (Area Objective ALO20)
<i>Habitats within the Site</i>		
Amenity grassland	The amenity grassland is managed as short-mown lawn and has limited value, and is of <b>negligible ecological importance</b> , but may provide some foraging or commuting resource for wildlife using the site.	-
Buildings and Hardstanding	These habitats have no intrinsic value and are of <b>negligible ecological importance</b> .	-
Grassland (species-poor semi-improved)	The grassland is species-poor, is likely to have been previously managed as amenity grassland and is becoming colonised by common ruderal vegetation (including invasive non-native species). It is of <b>negligible ecological importance</b> but may provide foraging opportunities or shelter for wildlife using the site, such as birds, amphibians, small mammals and invertebrates.	-
Hedgerow	The hedgerow has not been managed in recent years but is well-established and provides limited additional habitat connectivity. It is of no more than <b>site ecological importance</b> .	LBAP LPP R2 NERC
Invasive non-native plants	These species are of <b>negligible ecological importance</b> , but there is a legislative requirement to prevent their spread beyond the site boundary.	WCA
Ponds	The ponds within the garden centre area of the site are ornamental in nature, with several being of solid construction and stocked with fish and are of <b>negligible ecological importance</b> . Pond P7 in the south is in generally poor condition but is of <b>local ecological importance</b> . The ponds also provide a wetland habitat resource for wildlife and breeding habitat for common amphibians.	LBAP LPP R2 NERC
Scattered scrub and trees	This habitat includes some mature individual trees of native species but is dominated by ornamentals and naturally colonised by unmanaged scrub vegetation which can be easily replaced. Collectively it is of no more than <b>site ecological importance</b> .	-
Tall ruderals	This habitat is dominated by common and widespread species, including invasive non-native species and is easily replaced. It is of <b>negligible ecological importance</b> but may provide foraging opportunities or shelter for wildlife using the site, such as bird, amphibians, small mammals and invertebrates.	-

Resource	Evaluation	Policy / Legal Protection
<i>Habitats adjacent to the Site</i>		
Watercourse (Timperley Brook)	Timperley Brook, where it runs adjacent to the site, is classified by the Environment Agency as a 'main river' and is a linear habitat with established riparian vegetation which provides habitat connectivity with the wider area. It is also designated in the Local Plan as a 'wildlife corridor'. It is considered to be of <b>local ecological importance</b> .	LPP R2 NERC
<i>Fauna</i>		
Badger	No setts on site. No evidence of regular use by badgers. The site is assessed as being of <b>negligible ecological importance</b> in respect of this species. However, there is a legislative requirement to prevent disturbance to badger should they begin to use the site prior to/during construction works.	PBA
Bats	No bat roosts recorded in buildings within site and only occasional usage of the site by common and widespread species. No trees with bat roosting potential will be impacted by the proposed development layout. Site considered to be of <b>site ecological importance</b> only in respect of bats.	CHSR LBAP LPP R2 NERC WCA
Birds	The habitats within the site would likely support a range of common and widespread bird species, along with a number of species of Conservation Concern. There is also a legislative requirement to mitigate impacts to nesting birds during site clearance.	NERC (some species likely to be present on site, including dunnoek) WCA
GCN and other amphibians	GCN surveys confirmed the likely absence of GCN from the site, which is of <b>negligible ecological importance</b> for this species. Small numbers of smooth newt, palmate newt and common frog were also recorded within site. In terms of other amphibians, the site is of <b>site ecological importance</b> .	<u>GCN only:</u> CHSR (GCN) LBAP LPP R2 NERC  <u>Amphibians:</u> WCA
Reptiles	Site contains limited habitat suitable for reptiles (namely grass snake), is located within a suburban landscape and there are no historical records within the 1km. It is unlikely that reptiles are present and this species group is not considered further within this assessment.	NERC WCA
Water vole and otter	No evidence of either species was recorded during surveys undertaken in 2019. They are likely to be absent from site and are not considered further within this assessment.	
Other	Site contains habitat which could be utilised by hedgehog and polecat.	NERC
Abbreviations: CHSR: Conservation of Habitats & Species Regulations 2018 CRoW Countryside and Rights of Way Act 2000 LBAP: Priority species in Greater Manchester Biodiversity Action Plan LPP R2: Trafford Local Planning Policy R2 – Natural Environment		

NERC: Habitats and Species of Principal Importance which are listed at Section 41 of the Natural Environment and Rural Communities Act 2006

NNR: National Nature Reserve

PBA: Protection of Badgers Act 1992

SBI: Site of Biological Importance within Greater Manchester

SSSI: Site of Special Scientific Interest

WCA: Wildlife and Countryside Act 1981 (as amended)

## Section 4: Potential Ecological Impacts and Requirements for Mitigation

### *Statutory Sites*

- 4.1. Rostherne Mere (RAMSAR, SSSI, NNR) is not functionally or hydrologically linked to the site and there would be no direct impacts on this site due to the construction phase of the proposed works. It is also restricted to public access via a permitting system so it is considered that an increase in local housing numbers as proposed would not incur any indirect impacts through recreational pressure during the operational phase. Therefore, it is considered that there would be no adverse impacts on Rostherne Mere as a result of the proposed development and there is no recommendation for further mitigation.
- 4.2. Midland's Meres and Mosses Phase 1 (Tatton Mere RAMSAR) is not functionally or hydrologically linked to the site and there would be no direct impacts on this site due to the construction phase of the proposed works. It is also managed extensively for visitors so it is considered that the proposed small increase in number of residential units would not result in any adverse impacts on this RAMSAR site through increased recreational pressure. It is, therefore, considered that there would be no adverse impacts on Rostherne Mere as a result of the proposed development and there is no recommendation for further mitigation.

### *Non-Statutory (Local) Sites*

- 4.3. Davenport Green SBI is considered to be sufficiently distant from the site and not linked in any way to ensure there would be no adverse impacts on this site through the construction phase of the proposed works. The small scale of development sought would also not result in any significant adverse impacts through recreational pressure.
- 4.4. King George V Pool lies downstream of Timperley Brook, which passes through the site. There is potential for adverse impacts on this site through water quality degradation resulting from surface water run-off and pollution through the construction phase. Mitigation for this anticipated impact would be controlled through a Construction and Environmental Management Plan (CEMP) – see **Section 5** of this report.
- 4.5. The southern part of the site is also identified as part of a wildlife corridor under ENV10 of the Unitary Development Plan, which has been incorporated into Policy R2 of the Local Plan. This wildlife corridor is referred to as Timperley Brook. Trafford's Core Strategy Plan refers to the policy designation of this wildlife corridor:
  - Policy R2: All planning applications submitted for development within, or in close proximity to, any of the Borough's assets must be supported by such a (ecological assessment) report. The borough's assets include... 'Wildlife Corridors'.
  - Place Objective ALO20: To protect and enhance the linear green network and wildlife corridors, including that of the Bollin Valley, Brooks Drive and Timperley Brook.
- 4.6. The proposals show development within part of this 'wildlife corridor' but that Timperley Brook itself would be retained and buffered with public open space and an attenuation feature. So, whilst there would be loss of terrestrial habitat associated with the Timperley Brook wildlife corridor including amenity grassland, scrub and tall ruderals, these habitats are of limited or no ecological importance and also include previously developed land (including buildings and hardstanding). Opportunities also exist for the enhancement of the brook corridor via canopy thinning to allow more light into the channel and management of Himalayan balsam. The value of the brook corridor to fauna would be retained and no other specific mitigation is required.



*Habitats within the site*

- 4.7. Where habitats with importance within the boundary of the site exist, effort has been made to retain these habitats within the design of the proposed indicative landscape masterplan. Where this is not possible, replacement planting or creation of new habitats using native species has been included within the indicative landscape design.
- 4.8. The proposed residential development of the site (see **Appendix 6**) will result in the loss of a pond of **local ecological importance** and scattered trees of **site ecological importance**; all other habitat losses are of **negligible ecological importance**.
- 4.9. Potential impacts to retained hedgerows and trees may occur during construction resulting from issues including inadvertent damage, or inappropriate storage of materials. Measures to mitigate impacts are detailed in **Section 5**.
- 4.10. Invasive non-native species are present throughout the site and mitigation will be required to control the potential spread of these species beyond the site boundary to ensure compliance with legislation. Measures to mitigate impacts are detailed in **Section 5**.

*Habitats adjacent to the site*

- 4.11. Timperley Brook runs adjacent to the southern boundary of the site and therefore potential impacts may occur during construction including direct damage to the watercourse and riparian habitat from plant machinery, run-off of pollutants from the construction site or inappropriate storage of materials. Measures to mitigate impacts are detailed in **Section 5**.

*Protected and Notable Species***Badger**

- 4.12. No evidence of badger was recorded within the site so there are no requirements for mitigation to this regard. Recommendations are made in this report, however, to protect badgers which use the site for foraging or commuting during the construction phase.
- 4.13. Recommendations are also made for a badger survey prior to the commencement of development as this species can excavate setts regularly and in a short space of time.

**Bats**

- 4.14. Following preliminary roost assessment surveys of the buildings within the site, and nocturnal surveys of those with roost potential (B1 – B3) during 2019, no roosting bats were recorded. It is, therefore, concluded that roosting bats are likely to be absent from all buildings within the site and there is no recommendation for further surveys, licensing or mitigation.
- 4.15. Only one mature tree with bat roosting potential is present within the site but is unaffected by development proposals (denoted at T9 in the Preliminary Arboricultural Impact Assessment, TG report ref: 12123/R02, 26<sup>th</sup> June 2020). Therefore, no mitigation in respect of tree roosting bats is currently required, but recommendations have been made should changes to proposed tree loss occur which would impact this tree.
- 4.16. The proposals also provide an opportunity to enhance the site for roosting bats and appropriate recommendations are made in **Section 5** of this report.

- 4.17. The proposals will result in clearance of suitable foraging and commuting habitat for bats but do not require specific mitigation. Habitat and green infrastructure provisions which form part of the overall landscaping design will adequately compensate for the minor losses incurred.
- 4.18. There is potential for impacts to foraging and commuting bats resulting from use of inappropriate lighting, both during construction and operation of the site and suitable mitigation is detailed below in **Section 5**.

### **Birds**

- 4.19. Development proposals would require the loss of habitat within the site which is suitable for a range of common and widespread 'Green List'<sup>8</sup> species, along with a number of species of Conservation Concern i.e. Amber List/Red List. These species are dunnoek, song thrush, bullfinch, house sparrow and starling, all of which are known to be present in the area. Due to the expected loss of habitat for these species, which are in population decline, it will be necessary to implement a sensitive landscaping scheme to ensure that there is sufficient habitat for dunnoek, bullfinch and song thrush to utilise for nesting post-development. Such landscape features should comprise areas of dense thorny scrub.
- 4.20. Mitigation for the loss of potential nest sites for house sparrow and starling must comprise replacement nest boxes associated with new residences – see **Section 5** for further detail.
- 4.21. It will also be necessary to conduct site clearance activities in a manner sensitive to nesting birds – see **Section 5** for further detail.

### **GCN (and other amphibians)**

- 4.22. During GCN presence/absence surveys conducted on the ponds within the site in 2019, no GCN were recorded and it is therefore considered that GCN are likely absent from the site. There is no recommendation for further surveys, licensing or mitigation to this regard.
- 4.23. Smooth newts, palmate newts and common frog were recorded in the ponds across the site during the surveys. Although not specifically protected by legislation in regards to development activities, these species should be protected as far as is reasonably practicable during site clearance activities and the construction phase in general – see **Section 5**

### **Other**

- 4.24. Although hedgehogs are not afforded any legal protection, they are in population decline and efforts should be made to conserve this species and enhance sites for hedgehog wherever possible. To this end, the construction phase of the proposed works should be conducted following sensitive working methodologies – see **Section 5**.
- 4.25. Hedgehogs should also be allowed continued access through the site post-development. Measures to this regard are provided in **Section 5**.

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<sup>8</sup> Birds of Conservation Concern – BTO/RSPB – 2016

## Section 5: Mitigation and Enhancement Strategy

### *Non-Statutory (Local) Sites*

- 5.1. To ensure the SBI King George V Pool is not affected as a result of construction works, it will be necessary to control pollution prevention through an appropriate Construction Environmental Management Plan (CEMP). This CEMP should include, but not be restricted to:
- Details for how surface water-run off into Timperley Brook will be controlled to prevent excess pollution/siltation; and
  - Details of dust suppression methods to prevent dust collection in Timperley Brook.

### *Habitats within the site*

- 5.2. Potential impacts to retained habitats of ecological importance (hedgerow and trees), including inadvertent damage or degradation, pollutant run-off and inappropriate storage of materials will be mitigated through the implementation of an Arboricultural Method Statement (AMS) and CEMP.
- 5.3. The loss of a pond (P7) of local ecological importance will be compensated through the creation of a new, multifunctional pond, managed partly for wildlife, in the south of the site, which will be managed to establish and maintained in a good condition to provide an overall enhancement of wetland habitat.
- 5.4. The indicative landscaping scheme (see **Appendix 7**) has been designed to include creation of new habitat within the buffer area adjacent to Timperley Brook in the south of the site and other new planting across the wider site. This includes an attenuation pond (which should be designed to permanently hold some water when considering detailed landscape proposals), wildflower meadow, hedgerow, trees and SUDs features which will maximise use of native and/or wildlife-friendly species.
- 5.5. An appropriate management strategy for removal and/or treatment of invasive non-native species (including Himalayan balsam, giant hogweed and Japanese knotweed) to control their spread beyond the site boundary should be devised and implemented by a specialist contractor prior to the commencement of site clearance or construction activities.
- 5.6. A Landscape and Ecological Management Plan (LEMP) should be devised and implemented to ensure success and long-term viability of retained and newly created habitats.

### *Habitats adjacent to the site*

- 5.7. Potential impacts to Timperley Brook will be minimised through the inclusion of a minimum buffer of 8m from the development edge (including hard landscaping). This buffer increases to between 15m and 20m from the curtilage of the nearest dwellings.
- 5.8. Other potential impacts to Timperley Brook which may occur during construction from effects such as pollution, lighting and storage of materials will be mitigated through the implementation of a CEMP for the duration of works.

### *Protected and Notable Species*

#### **Badger**

- 5.9. It is recommended that an update badger survey is undertaken prior to the commencement of any construction activities or site clearance on site. If any new badger setts are identified within the site, or up to 30m from the site boundary, a mitigation strategy may be required.
- 5.10. During the construction phase it will be necessary to include the following working practices to protect badgers, other small mammals and amphibians and these measures should be incorporated into a CEMP for the development:
  - Any excavations left overnight to be sealed or ramped to allow any wildlife which becomes entrapped the opportunity to escape;
  - Any pipework capped overnight to prevent wildlife entering; and
  - Site materials stored off the ground on pallets or within skips to prevent wildlife from seeking shelter within.

#### **Bats**

- 5.11. If, at the detailed planning stage result in the proposed loss of T9 (moderate potential for roosting bats, see **Appendix 2**), further survey will be required to determine whether roosting bats are present, and a suitable mitigation strategy devised if necessary. It is considered, however, that any roosts present within could easily be accommodated within the scale of the proposals sought (i.e. through inclusion of integrated bat boxes).
- 5.12. The layout of the site should include a sensitively designed lighting scheme, detailed at the Reserved Matters planning stage, to mitigate potential impacts to foraging and commuting bats once the site is operational. The lighting scheme should avoid light spill of greater than 1 Lux at tree canopy height onto retained, adjacent and newly created habitat features (including hedgerow, trees and ponds).
- 5.13. The proposals also provide an opportunity to enhance the site for roosting bats through the inclusion of integral bat boxes should be included on new dwellings

#### **Birds**

- 5.14. House sparrow and starling boxes should be incorporated within new residences within the site to enhance the site for these species. The landscaping scheme should seek to include a layered structure of thorny and berry-producing scrub habitat to mitigate for the loss of scrub habitat currently present within the site.
- 5.15. All vegetation and building clearance should also be timetabled for outside the 'core' nesting bird season (i.e. conducted between September and February) to avoid active nests and the legislation which is afforded to them. Where this is not possible, any site clearance activity must be preceded by a check for active nests if conducted between March and August inclusive (i.e. the 'core' nesting season for birds). The check must be conducted by a suitably qualified ecologist (SQE) and if an active nest is encountered, a sufficient buffer zone will be implemented around the nest commensurate with the species, tolerance of human activity and stage of nesting. Works can then only proceed in that buffer zone once the SQE has determined the nest is no longer active.



- 5.16. It should be noted that some species of bird (i.e. doves, pigeons) can nest year-round so even if site clearance activities are conducted outside of the 'core' nesting season, site contractors must show due diligence and cease works and seek advice from a SQE if they suspect the presence of an active nest.

#### **GCN and other amphibians**

- 5.17. Pond draining/infilling should be undertaken over winter when the likelihood of amphibian presence in ponds is lowest. The sensitive working practices highlighted to mitigate for potential impacts on badger will also be sufficient to protect amphibians during the construction phase of the proposed works.
- 5.18. It is also recommended that amphibian-friendly kerbs are installed around gulley pots<sup>9</sup> in the completed development to prevent amphibians from falling into gulley pots and becoming trapped.

#### **Other**

- 5.19. The sensitive working practices outlined for badger will be sufficient to mitigate for potential impacts on hedgehog and polecat during the construction phase.
- 5.20. Holes in fences in the developed site ('hedgehog highways') should also be installed to ensure this species has continued access through the site post-development.

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<sup>9</sup> <https://www.aco.co.uk/products/wildlife-kerb>

## Section 6: Conclusion and Summary of Residual Impacts

- 6.1. Features of ecological importance have been retained within the site layout where possible and it has been demonstrated that those to be lost could be provided in any detailed landscape scheme at a future stage, which will need to include native species and semi-natural habitats to provide opportunities for wildlife. Potential to improve the biodiversity of the site also exists and measures will be implemented which help to support the aims of the local planning policies and LBAP.
- 6.2. A management strategy to control the spread of invasive non-native species should be devised by a specialist contractor and implemented on the site prior to the commencement of site clearance or construction activities.
- 6.3. An update badger survey should be undertaken prior to the commencement of any site clearance activities to confirm the continued absence of setts from the site.
- 6.4. Habitat suitable for nesting birds is present throughout the site. Clearance of trees and other woody vegetation should be timed to avoid the nesting season (generally March to August, inclusive), or be preceded by a check for nesting birds by a SQE.
- 6.5. The detailed design of the layout should include provisions to maintain connectivity throughout the site for hedgehog (i.e. hedgehog highways within garden fencing).
- 6.6. The mitigation and enhancement strategy should be controlled by appropriately worded planning controls devised to:
  - Secure ecological inputs to a CEMP to mitigate potential impacts to non-statutory sites, habitats and protected or priority species (badger, nesting birds, amphibians, hedgehog) during construction;
  - Secure a sensitively designed lighting scheme to mitigate potential impacts to foraging and commuting bats; and
  - Secure the provision and implementation of a LEMP detailing measures for management of retained and newly created habitats, and enhancements for protected and priority species (bats, nesting birds), to ensure biodiversity benefits are maximised in the long term.

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## Appendix 1: Legislation and Planning Policy

## Appendix 1: Legislation and Planning Policy

- A1.1. This section summarises the legislation and national, regional and local planning policies, as well as other reference documents, relevant to the baseline ecology results.

### Legislative Context

- A1.1. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
  - The Conservation of Habitats and Species Regulations (CHSR) 2017 (as amended);
  - The Countryside and Rights of Way (CROW) Act 2000;
  - The Hedgerows Regulations 1997;
  - The Protection of Badgers Act 1992; and
  - The Natural Environment and Rural Communities (NERC) Act 2006.
- A1.2. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2017 (as amended).
- A1.3. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.
- A1.4. The CROW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

### National Planning Policy

#### *National Planning Policy Framework (NPPF), February 2019*

- A1.5. The National Planning Policy Framework (NPPF) was published in February 2019 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012, subsequently updated in July 2018.
- A1.6. Paragraph 11 states that:
- "Plans and decisions should apply a presumption in favour of sustainable development."*
- A1.7. Section 15 of the NPPF (paragraphs 170 to 177) considers the conservation and enhancement of the natural environment.



- A1.8. Paragraph 170 states that planning and decisions should contribute to and enhance the natural and local environment by:
- a) *“protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
  - a) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and*
  - b) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”*
- A1.9. Paragraph 171 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.
- A1.10. Paragraph 174 states that in order to protect and enhance biodiversity and geodiversity, plans should:
- a) *“Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
  - a) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*
- A1.11. When determining planning applications, Paragraph 175 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:
- a) *“if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
  - a) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
  - b) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
  - c) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”*
- A1.12. As stated in paragraph 176 the following should be given the same protection as habitats sites:

- a) *“potential Special Protection Areas and possible Special Areas of Conservation;*
- a) *listed or proposed Ramsar sites; and*
- b) *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”*

A1.13. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

*Office of the Deputy Prime Minister (ODPM) Circular 06/2005: Biodiversity and Geological Conservation - Statutory Obligations and their Impact within the Planning System*

- A1.14. ODPM Circular 06/05 was prepared to accompany PPS9, however continues to be valid, and material in the consideration of planning applications since PPS9's replacement by the NPPF.
- A1.15. ODPM Circular 06/05 provides guidance on applying legislation in relation to nature conservation and planning in England. Part I considers the legal protection and conservation of internationally designated sites (namely candidate Special Areas of Conservation (cSACs), SACs, potential Special Protection Areas (pSPAs), SPAs and Ramsar sites) and Part II considers the legal protection and conservation of nationally designated sites, namely Sites of Special Scientific Interest (SSSIs).
- A1.16. Part III considers the protection of habitats and species outside of designated areas (particularly UK Biodiversity Action Plan species and habitats, which it states are capable of being a material consideration in the preparation of local development documents and the making of planning decisions.
- A1.17. Part IV considers species protected by law and states that the presence of a protected species is a material consideration in the consideration of a development proposal that, if carried out, would be likely to result in harm to the species or its habitat and that it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted.

*Local Planning Policy*

- A1.18. The Trafford Local Plan: Core Strategy was adopted by Trafford Council in January 2012 forming part of the Local Development Framework (LDF). The Local Development Plan replaced the Revised Unitary Development Plan to provide a guide for local development for the 15 years post adoption. The Core Strategy outlines what changes are needed and how these changes will be managed and developed whilst enhancing the sustainability of the Borough. The following policies in the Core Strategy are relevant to ecology:
- R2 – Natural Environment - This policy requires the following ecological assets to be protected: Designated sites and species of national, regional and local importance: • Sites of Special Scientific Interest (SSSI); • European Protected Species; • Local Nature Reserves; • Ancient Woodland ; • Sites of Biological Importance (SBI); • Sites of geological and geomorphological importance; • Local Nature Conservation Sites; • Wildlife Corridors; and • Open countryside landscape character areas; (b) Woodland, hedgerows and hedgerow trees and trees including street trees and ancient trees; Areas of open water and watercourses; (d) Areas of strategic importance as identified in The Greater Manchester Ecological Framework and Trafford's Climate Change Strategy; (e) Historic Parks and Gardens and historic landscapes including Dunham Massey; and (f) Habitats and species identified in the Greater Manchester Biodiversity Action Plan (BAP).

- R3 – Green Infrastructure – This policy requires that the council will work in partnership with local communities and developers to produce high quality and multi-functional infrastructure which includes all assets in R2. The policy includes the importance to protect and connect existing and potential nature conservation sites along with the potential of wildlife habitat creation. This policy promotes the development of Stretford Meadows including habitat enhancement to encourage an increase in bird species such as reed buntings and skylarks.

## Biodiversity Action Plans

- A1.19. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species and Habitats agreed under the UKBAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A Strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been succeeded, Species Action Plans (SAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.
- A1.20. Priority Species and Habitats identified under the UKBAP are also referred to as Species and Habitats of Principal Importance for the conservation of biodiversity in England and Wales within Sections 41 (England) and 42 (Wales) of the NERC Act 2006. The commitment to preserving, restoring or enhancing biodiversity is further emphasised for England and Wales in Section 40 of the NERC Act 2006.

### *Local Biodiversity Action Plans*

- A1.21. The Greater Manchester Biodiversity Action Plan includes plans for a number of habitat and species.

- A1.22. Species plans are published for:

- Hare;
- Farmland birds;
- Water vole;
- Great crested newt;
- Willow tit;
- Reedbeds and bittern;
- Black redstart;
- Native black poplar;
- Bats;
- Twite; and
- Floating water plantain.

- A1.23. Habitat plans are published for:

- Grasslands (Species rich (unimproved) neutral grassland;
- Acid grassland;
- Marshy grassland;
- Grasslands of high ecological value on areas of previously developed land;
- Hedgerows;
- Native woodland (Lowland broad leaved, Upland oak, Wet woodland);
- Ponds and lodges;
- Lowland mosslands;
- Reedbeds and bittern;
- Urban managed greenspace;
- Uplands; and
- Canals.

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## Appendix 2: Bat Surveys

## Appendix 2: Bat Surveys

### Legislation and Conservation Status

- A2.1 As European protected species, all UK bats receive legal protection in England under the Conservation of Habitats and Species Regulations 2018 (as amended) and the Wildlife and Countryside Act 1981 (as amended). In addition, planning policy set out in the National Planning Policy Framework 2019 requires planning authorities to consider bats when determining planning applications and to ensure that development proposals do not lead to an adverse effect on the conservation status of bats.
- A2.2 Several species of bats (barbastelle *Barbastella barbastellus*, Bechstein's *Myotis bechsteinii*, brown long-eared *Plecotus auritus*, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *R. hipposideros*, noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus*) are listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.
- A2.3 All British species of bat are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2018 as a European protected species (EPS) of animal. Regulation 41 (1) makes it an offence to:
- Deliberately capture, injure an EPS;
  - Deliberately disturb an EPS; or
  - Damage or destroy a breeding site or resting place of an EPS.
- A2.4 All British bats are listed in Schedule 5 of the WCA and in England and Wales are protected under Section 9 subsections 4b, 4c and 5 which makes it an offence to:
- Disturb any bat while it is occupying a structure or place which it uses for shelter or protection; or
  - Obstruct access to any structure or place which any such animal uses for shelter or protection.
  - Sell, offer or expose for sale, or have in possession or transport for the purpose of sale (any live or dead wild Schedule 5 animal or any part or anything derived from such an animal); or
  - Publish or cause to be published any advertisement likely to be understood as conveying that they buy or sell, or intends to buy or sell, any of those things.
- A2.5 All British bats are also listed at Schedule 6, Section 11 of the WCA, which states that bats cannot be killed or taken by certain methods, such as traps and nets, poisons, automatic weapons, electrical devices, smoke / gases etc.
- A2.6 Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, which states that decision-makers such as Local Planning Authorities must have regard to Species of Primary Importance (SoPI) in all their activities, including when making decisions on planning applications.
- A2.7 The following bat species are SoPIs: Barbastelle; Bechstein's bat; noctule; soprano pipistrelle; brown long-eared; greater horseshoe bat; and lesser horseshoe bat. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.
- A2.8 All bats occurring in the region are also identified as target species under the Greater Manchester Biodiversity Action Plan.



## Methodology

### Scope of bat surveys

A2.9 The surveys followed standard methodologies set out in the Bat Mitigation Guidelines<sup>1</sup>, the Bat Workers Manual<sup>2</sup> and Bat Surveys - Good Practice Guidelines<sup>3</sup> and comprised:

- Preliminary Roost Assessments (PRAs) of buildings and trees impacted by proposals - internal and external building inspection surveys to assess potential to support roosting bats; and
- Bat emergence/re-entry surveys – to identify any potential roosts within buildings, assess the species assemblage present at the site and to identify significant commuting routes/foraging areas.

### Building and Tree Preliminary Roost Assessment (PRA)

A2.10 The assessment was undertaken on 29<sup>th</sup> March 2019 by Steven Coyne (Consultant Ecologist at Tyler Grange and Natural England Level 2 bat licence holder), assisted by Amy Sherwin (Seasonal Ecologist Tyler Grange).

A2.11 All buildings at the site were examined externally and internally where access permitted (B1 – B5, see **Plan 1** for locations and building numbers). The surveyors used binoculars to search for signs indicating the presence of, or potential for, roosting bats. Such signs may include bat droppings, urine splashes, staining and features suitable for allowing bats access to roost (e.g. gaps behind soffits/hanging tiles/ridge tiles, lifted slates/flashing).

A2.12 Trees on site were also assessed for their potential to support bat roosts during the extended Phase 1 habitat survey undertaken in March 2019 by Steven Coyne. The assessment comprised a ground based visual inspection using binoculars to identify any features potentially suitable for roosting bats. Such features may include woodpecker holes, frost cracks, deadwood, knot holes and limb wounds.

A2.13 The potential of the buildings and trees to support roosting bats was assessed using the criteria shown in **Table A2.1** below, which is taken from the Bat Conservation Trust's survey guidelines.

**Table A2.1: Building assessment criteria - adapted from Collins, 2016.**

Suitability	Description of Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time.

<sup>1</sup> Mitchell-Jones, A.J. (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

<sup>2</sup> Mitchell-Jones, A.J. and McLeish, A.P. (2004). Bat Workers' Manual. 3rd Edition. JNCC, Peterborough.

<sup>3</sup> Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn).





### *Emergence/Re-entry Surveys*

- A2.14 Dusk emergence surveys of buildings with potential to support roosting bats (as determine by the PRA) were undertaken between July and August 2019. There surveys were undertaken to determine whether any bat roosts were present, and if so the species and type of roost. General bat activity in vicinity of the buildings was also noted during the emergence and re-entry surveys.
- A2.15 Surveyors used a combination of direct visual observation and echolocation detection techniques to identify any bat activity on the site. Dusk emergence surveys started 15 minutes prior to sunset for a duration of 1.75hrs. Dawn re-entry survey started 1.5hours before sunrise and continued until sunrise or up to 15 minutes afterwards.
- A2.16 An appropriate number of surveyors was used for each survey to ensure adequate visual coverage of all potential roost features (PRFs) on buildings.
- A2.17 Anabat Express and Batbox Duet detectors were used throughout each survey; the Duet detector was used for active monitoring and Anabat detectors for recording bat calls in zero crossing format. AnalookW software was used to confirm the identification of bat calls recorded in the field.
- A2.18 Details of the timings and the weather conditions for each survey are shown in **Table A2.2**.

**Table A2.2: Bat emergence and re-entry survey details.**

Building No.	Date	Survey times	Weather conditions	Surveyors
B1	15/07/2019	Start: 21:15 Sunset: 21:30 End: 23:00	Wind (Beaufort): 1-1 Temp (°C): 21-19 Precipitation: None Cloud (Octas): 7-6	Kyle Mellish Joseph Dance
B2	25/07/2019	Start: 03:30 Sunrise: 05:15 End: 05:30	Wind (Beaufort): 1-1 Temp (°C): 21-19 Precipitation: None Cloud (Octas): 4-1	Joseph Dance John Harrison-Bryant
B3	05/08/2019	Start: 20:43 Sunset: 20:58 End: 22:28	Wind (Beaufort): 1-3 Temp (°C): 18-17 Precipitation: None Cloud (Octas): 4-1	Joseph Dance Amy Sherwin



## Survey Limitations



- A2.19 The north side of building B1 was obscured by trees, hindering full external inspection of this elevation, but all other sides were accessible and the presence of dense vegetation in very close proximity of the building makes it unlikely that bats would be able to access any PRFs, if present.
- A2.20 The weather was optimal during all surveys and a high level of confidence is placed on the results.




## Results

### *Building and Tree PRA*

- A2.21 Buildings B1, B2 and B3 were all assessed as having 'low' potential to support roosting bats. Building B4 and B5 have negligible potential to support roosting bats (refer to **Plan 2** for building numbers and locations).
- A2.22 A description of each building together with detail of PRFs and bat roost potential category shown in **Table A2.3** below.

**Table A2.3: Building descriptions and roost potential.**

Building	Description	Roost Potential	Photo
B1	<p>'Nissen Hut' style building with brick-built front and back, and corrugated sheet roof.</p> <p>Small gaps on western elevation between brick wall and window lintel which leads into cavity.</p> <p>Northern elevation obscured by trees.</p>	Low	
B2	<p>Brick built with both flat and sloped sections of felt-covered roof.</p> <p>Gaps present between fascia board and wall with access into crevice space between wall and roof timbers.</p> <p>Other small holes where service pipes have been removed are present in exterior wall surface leading into cavity wall, and a large gap in wall where some brickwork is missing.</p>	Low	

Building	Description	Roost Potential	Photo
B3	<p>Single storey building of mainly rendered breeze-block construction, with corrugated sheet metal and ply-board roof covering.</p> <p>Gaps present at gable end apex on north side and also on the eastern wall leading directly into the building.</p> <p>Building roof in generally poor condition with widespread gaps. Roof unlined internally but containing enclosed space with false ceiling.</p>	Low	
B4	<p>Main garden centre building largely glazed (both roof and walls) with sheet metal sections.</p> <p>No potential roosting features or suitability for roosting bats identified.</p>	Negligible	
B5	<p>Large greenhouse with multi-pitched glazed roof and walls.</p> <p>No potential roosting features or suitability for roosting bats identified.</p>	Negligible	

A2.23 One tree, a mature weeping willow *Salix babylonica*, located at the northern edge of the car park area was assessed as having 'moderate' potential to support roosting bats (denoted as T9 in Preliminary Arboricultural Impact Assessment report – TG report ref: 12123/R02, 26<sup>th</sup> June 2020). A PRF in the form of a natural hole is present about 5m above ground on the southern aspect. This tree is proposed for retention in the outline proposals and so no further survey work is required.

A2.24 All other trees within the site boundary have negligible potential to support roosting bats.



### *Emergence Surveys*

- A2.25 Each building with 'low' roost potential (B1 – B3) was subject to a single dusk emergence or dawn re-entry survey during the optimal survey period (May to August, inclusive).
- A2.26 No bat emergence or re-entry was recorded from any of the buildings during these surveys and it is concluded that no bat roosts are present.
- A2.27 Small numbers of common pipistrelles were recorded commuting and foraging in the vicinity of building B2 and B3 during the surveys. A number of bats were recorded HNS (heard not seen), which suggests that they were commuting at height or foraging behind surveyor positions.



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# Appendix 3: GCN Survey



## Appendix 3: GCN Survey

### Legislation and Conservation Status

- A3.1. As a European protected species, great crested newts (GCN) *Triturus cristatus* receive legal protection in England under the Conservation of Habitats and Species Regulations 2018 (as amended) and the Wildlife and Countryside Act 1981 (as amended). In addition, planning policy set out in the National Planning Policy Framework 2019 requires planning authorities to consider GCN when determining planning applications and to ensure that development proposals do not lead to an adverse effect on the conservation of GCN.
- A3.2. GCN are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2018 as a European Protected Species (EPS). Regulation 41(1) makes it an offence to:
- Deliberately capture, or injure an EPS;
  - Deliberately disturb an EPS;
  - Deliberately take or destroy the eggs of an EPS; or
  - Damage or destroy a breeding site or resting place of an EPS.
- A3.3. Although GCN still maintain a widespread distribution in England, they are in decline, notably through loss of breeding ponds. A greater decline has been noted across the European range of the GCN, and now the UK holds a large proportion of the world population of the species. GCN is listed on the UK and Cheshire local Biodiversity Action Plan (BAP) and is a Species of Principal Importance (SoPI)<sup>1</sup>.

### Previous Records

- A3.4. The local records centre, Greater Manchester Ecology Unit (GMEU), were consulted for protected and priority species records within 1km of the site, from within the past 20 years.
- A3.5. GMEU returned 9 records of GCN within 1km radius of the site with the closest record being, 950 metres southeast from the site, recorded in 2002.
- A3.6. Greater Manchester Ecology Unit returned no records of any other amphibians within the 1km radius of the site.

### Survey Methodology

#### *Scope of GCN survey*

- A3.7. Ten ponds were surveyed for GCN, including one natural pond (P7) and seven ornamental ponds / waterbodies (P1 – P6 and P8 – P10) within the aquarium gardens associated with the site. All waterbodies lie within the boundary of the site, (see Drawing **12123/P02a**). No other ponds are present within 250m of the site boundary.

#### *Habitat Suitability Index (HSI)*

<sup>1</sup> UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed at Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs.





A3.8. A Habitat Suitability Index (HSI) was calculated for each waterbody within the survey area in accordance with methodology recommended by Natural England (Oldham et al., 2000). The HSI assigns a score to the waterbody based upon various factors including, its size, aquatic vegetation, shading, geographic location, proximity to other ponds, and potential presence of fish. A score is given to each waterbody between 0 and 1, with scores closer to 0 having lower probability of GCN occurrence. The HSI cannot be used as confirmation of GCN presence or absence but is used as a guide to assess the habitat in terms of its potential to support great crested newts. It also provides useful information that can inform management and enhancement programmes. Research has indicated there is a correlation between HSI Score and the likelihood of GCN presence.

A3.9. The Natural England (NE) HSI classifications are provided below:

- < 0.5 Poor;
- 0.5 – 0.59 Below average;
- 0.6 – 0.69 Average;
- 0.7 – 0.79 Good; and
- 0.8 Excellent.

A3.10. Ditches were not subject to HSI as the methodology only applies to ponds.

*GCN Presence / Absence Survey*

A3.11. Full GCN presence/absence surveys of waterbodies were carried out by pairs of experienced ecologists (at least one being a Natural England GCN licence holder) between 7<sup>th</sup> April 2019 and the 13<sup>th</sup> May 2019 in accordance with recommended guidelines (English Nature, 2001). The guidance recommends that four survey visits should be undertaken between mid-March and mid-June, and that at least two of the visits should be undertaken between mid-April and mid-May.

A3.12. Waterbodies found to contain GCN during the first four visits receive two additional visits i.e. are visited a total of six times, in order to assess the 'Population Size Class', as defined by NE, and based on the maximum number of individuals recorded during any survey visit, using any one method. The categories below define GCN population sizes:

- 1 – 10 small;
- 11 – 100 medium;
- >100 large.

A3.13. Each waterbody was surveyed using three of the following four different methods:

- Egg searching: Although the data cannot be used to estimate population size it can indicate the presence of breeding adults. All suitable submerged vegetation was carefully searched for GCN eggs which are characteristically wrapped individually in the submerged leaves of aquatic vegetation;
- Bottle Trapping: Setting of bottle traps (where waterbody conditions allow). This involved the use of funnel traps (made from 2 litre clear plastic bottles) that were secured in the water at 2m intervals around the margin in the evening before dark, and left overnight to be checked and any caught animals released the following morning; and
- Torch survey: The accessible margins of the waterbody were slowly walked once, searching the margins by torchlight (one million candlepower) for GCN and other amphibians.
- Netting: Nets with a rigid metal frame and a mesh of approximately 2-3mm were used around the perimeter of the pond to net every two meters of shoreline. Netting is preferably done through aquatic vegetation in order to maximise the likelihood of catching GCN and other amphibians.



- A3.14. All amphibians observed were counted and where possible identified to species, sex and life stage. Survey dates and weather conditions are detailed in **Table A3.1** below.

**Table A3.1: Survey dates and weather conditions.**

Visit	Ponds Surveyed	Date	Weather Conditions Cloud cover / precipitation / wind speed (Beaufort scale)	Air Temp. During torching	Lead surveyor
1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	17/04/19	100% / dry / calm	14°C	GP
2	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	30/04/19	100% / dry / force 1	14°C	GP
3.a	4, 7	07/05/19	100% / dry / force 2	8°C	LRD
3.b	1, 2, 3, 5, 6, 8, 9, 10	09/05/19	90% / light rain / force 1	7°C	LRD
4	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	13/05/19	clear / dry / force 1	14°C	SK

*Survey limitations*

- A3.15. Several of the ponds within the aquarium gardens were constructed with pond liner or other solid substrate which made bottle torching not possible, so were netted as a alternative presence / absence survey method.

## Survey Results and Summary

*HSI of Waterbodies*

- A3.16. Detailed descriptions and HSI calculations for the ponds in the survey area and how the scores were derived can be found at the end of this appendix. **Table A3.2** below shows the summary HSI results for each pond

**Table A3.2: Summary of HSI scores.**

Pond Number	HSI Score	Suitability for GCN	On or Off Site
1	0.36	Poor	On
2	0.58	Below average	On
3	0.56	Below average	On
4	0.35	Poor	On
5	0.56	Below average	On
6	0.36	Poor	On
7	0.64	Average	On
8	0.57	Below average	On
9	0.34	Poor	On
10	0.56	Below average	On




*Presence/Absence Survey Results*

- A3.17. No GCN or their eggs were found in any of the ponds during the first four survey visits, therefore it is concluded that GCN are likely absent from the site.
- A3.18. Other amphibians recorded during the survey includes small numbers of smooth newt *Lissotriton vulgaris*, palmate newt *Lissotriton helveticus* and common frog *Rana temporaria*.




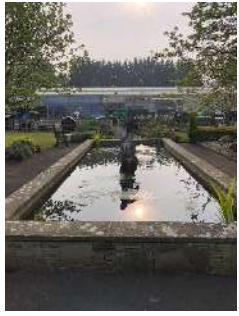
## HSI Survey Results Tables


Pond 1		
Indices		
Grid Reference	SJ 78822 87947	
Description	Ornamental pond containing a water fountain in the centre. The pond contained many ornamental fish including Koi carp.	
Distance to Site	On Site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	25%	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	major	0.01
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	10%	0.4
HSI Score	Poor	0.36


Pond 2		
Indices		
Grid Reference	SJ 78815 87946	
Description	Ornamental pond split into two sections by a stone walkway.	
Distance to Site	On Site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	50%	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	absent	1
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	20%	0.5
HSI Score	Below average	0.58




Pond 3		
Indices		
Grid Reference	SJ 78808 87935	
Description	Very small ornamental pond	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	50%	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	absent	1
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> – Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	none	0.3
HSI Scores	Below average	0.56


Pond 4		
Indices		
Grid Reference	SJ 78819 87932	
Description	Ornamental pond containing with concrete sides.	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	10%	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	major	0.01
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> – Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	none	0.3
HSI Scores	Poor	0.35


Pond 5		
Indices		
Grid Reference	SJ 78808 87932	
Description	Very small ornamental pond	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	0	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	absent	1
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	<5%	0.3
HSI Scores	Below average	0.56


Pond 6		
Indices		
Grid Reference	SJ 78805 87920	
Description	Ornamental pond split into two sections by a small water feature. The pond contained a large number of ornamental fish.	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	50%	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	major	0.01
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	10%	0.4
HSI Scores	Poor	0.36



Pond 7		
Indices		
Grid Reference	SJ 78809 87769	
Description	Natural pond comprising areas of seasonal inundation and also more permanent sections, partially shaded by willow scrub.	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	sometimes	0.5
SI <sub>4</sub> - Water quality	moderate	0.67
SI <sub>5</sub> - Shade	75%	0.7
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	absent	1
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	moderate	0.67
SI <sub>10</sub> - Macrophytes	50%	0.8
HSI Scores	Average	0.64

Pond 8		
Indices		
Grid Reference	SJ 78810 87925	
Description	Ornamental pond	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	25%	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	absent	1
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	10%	0.4
HSI Scores	Below average	0.57

Pond 9		
Indices		
Grid Reference	SJ 78819 87913	
Description	Ornamental pond containing a large amount of fish.	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	70	0.75
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	major	0.01
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	<5%	0.3
HSI Scores	Poor	0.34

Pond 10		
Indices		
Grid Reference	SJ 78815 87938	
Description	Ornamental water body containing no vegetation.	
Distance to Site	On site	
		
SI <sub>1</sub> - Location	A	1
SI <sub>2</sub> - Pond area	<50m <sup>2</sup>	0.1
SI <sub>3</sub> - Pond drying	never	0.9
SI <sub>4</sub> - Water quality	poor	0.33
SI <sub>5</sub> - Shade	0	1
SI <sub>6</sub> - Fowl	absent	1
SI <sub>7</sub> - Fish	absent	1
SI <sub>8</sub> - Ponds	3.2 per km <sup>2</sup>	0.95
SI <sub>9</sub> - Terrestrial habitat	poor	0.33
SI <sub>10</sub> - Macrophytes	0	0.3
HSI Scores	Below average	0.56

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## Appendix 4: Water Vole and Otter Survey

## Appendix 4: Water Vole and Otter Survey

### Legislation and Conservation Status

- A4.1. Water vole *Arvicola amphibius* are protected under the Wildlife and Countryside Act 1981 (as amended) (WCA). This includes protection from killing or taking by certain prohibited methods, and their breeding and resting places are also fully protected from destruction or obstruction. It is also an offence to disturb them in these places.
- A4.2. There is, however, provision within the legislation to use prohibited methods or to disturb them or damage/obstruct their resting places, and to kill or take them in certain defined circumstances and under licence, if the issue cannot be resolved by any alternative means.
- A4.3. Otter *Lutra lutra* are subject to protection under both UK law through the WCA and European law through the habitats directive, which is transposed into UK law in England by The Conservation of Habitats and Species Regulations 2018 (as amended) (CHSR).
- A4.4. Taken together this legislation makes the following acts offences:
- Intentional/deliberate killing, injuring or taking;
  - Damage or destruction of breeding sites/resting places
  - Intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection; and
  - Intentional or reckless disturbance of otters while they are using a place of shelter or protection.
- A4.5. Both water vole and otter are included on Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC). Their inclusion on Section 41 makes them a Species of Principal Importance for conservation (SoPI).
- A4.6. Water vole is also a target species of the Greater Manchester Biodiversity Action Plan (LBAP).

### Previous Records

- A4.7. No records of water vole or otter were received from the local records centre from the last 20 years within 2km of the site. A negative record for water vole (i.e. no presence of water vole recorded) was returned for a site 1km east of site in 2008.

### Survey Methodology

- A4.8. Combined water vole and otter surveys of Timperley Brook were conducted by Tyler Grange ecologists on 14th May 2019 and 19th September 2019 (see **Table A4.1**, below).

**Table A4.1:** Dates and weather conditions of the water vole and otter surveys.

Visit	Date	Weather Conditions Cloud cover / precipitation / wind speed	Temperature	Surveyor
1	14/05/2019	20% / dry / force 1	15°C	Laura Dennis Kyle Mellish
2	19/09/2019	100% / dry / force 2	15°C	Amy Sherwin Sophie Kirk



- A4.9. The search focussed on the stretch of the watercourse adjacent to the site (WC1, refer to **Plan 1**) and was surveyed between Green Lane in the west, and a short distance beyond the A5144 in the east. The watercourse was considered potentially suitable for water voles due to marginal vegetation and sections of steep bank.
- A4.10. Water vole signs searched for included droppings, latrines, feeding stations, lawns, nests, footprints and runways in vegetation. The survey methods followed those detailed in the Water Vole Mitigation Handbook<sup>1</sup>.
- A4.11. A search was also made for field signs indicating the presence of otters including spraints, prints, runs/pathways, slides and holts.

## Survey Limitations

- A4.12. Although the entirety of the ditch was surveyed, access to some areas was difficult due to dense vegetation or due to very steep banks and deep silty substrate which meant that the watercourse could not be entered safely. However, it was possible to wade safely along a large proportion of the channel and so this is not considered to have affected the assessments or conclusions made in this report.

## Survey Results and Summary

- A4.13. Timperley Brook runs east to west just beyond the southern boundary of the site. It was shaded in most places by broadleaved trees and scrub, with reinforced or canalised banks present in some sections (see Photographs 1 and 2). The majority of the channel was approximately 1-2m wide and had mostly flat banks but with some steeper areas (<45°), and water was generally very shallow with the occasional deeper section. Water flow was noticeable, but slow and consistent and the banks were predominantly shingle or earth with a population of Himalayan balsam *Impatiens glandulifera* present in some areas where it runs adjacent to the site.
- A4.14. No signs indicating the presence of water vole or otter were found along the length of the brook covered during the survey. There was a small number of rat latrines along the length of the channel.

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<sup>1</sup> Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016) The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Mathews and Paul Chanin. The Mammal Society, London





**Photographs 1 and 2:** Example views of Timperley Brook within the survey area.





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## Appendix 5: Site Photographs

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## Appendix 5: Site Photographs

Photograph 1: Amenity grassland in the north of the site.



Photograph 2: The main garden centre building and adjacent hardstanding in the centre of the site.





Photograph 3: Rough grassland colonised by ruderals in the west of the site.



Photograph 4: Hedgerow along the western site boundary.





Photograph 5: Bramble scrub in the north of the site.



Photograph 6: Trees, scrub and ponds in the centre of the site.

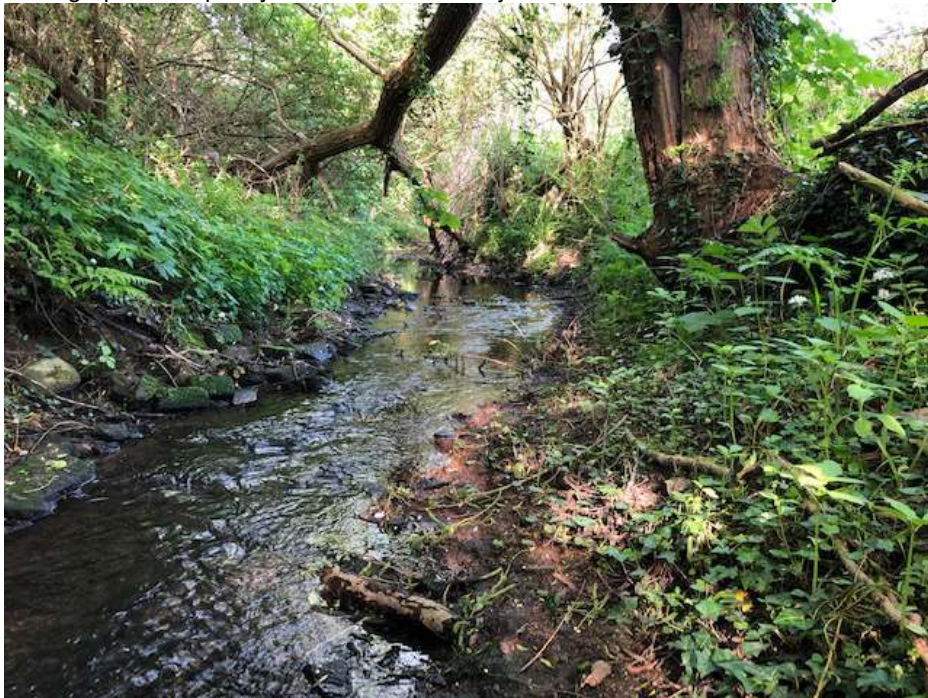




Photograph 7: Tall ruderal vegetation in the south of the site.



Photograph 8: Timperley Brook which runs adjacent to the southern boundary of the site.



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# Appendix 6: Proposed Outline Masterplan





This drawing is to be read in conjunction with all other relevant technical information, statutory approvals, specifications and 3rd party information. Do not scale from this drawing. Use only dimensions provided. All dimensions and levels to be checked on site and all discrepancies must be reported to the drawings author immediately. Responsibility cannot be accepted for alteration and/or deviation from this design without the prior acknowledgement of the drawings author. Any commercial decisions relating to this information must make due allowance for dimensional and area variation resulting from the design development and construction processes as well as the requirements of statutory authorities. This drawing is to be used only for the purposes indicated. This drawing is copyright and the property of Northmill Associates Ltd (NMA) and must not be reproduced without prior written agreement. Any Intellectual Property Rights (IPR) relating to the design(s) described in this drawing belong to the originating designer and, where it is not NMA's design, no credit for the design or IPR is sought by this drawings author.

LEGEND


Site Boundary

SUMMARY OF PROPOSAL

Site Area: 28,981 sq.m (7.16 Acres)  
Developable area: 27,024 sq.m (6.68 Acres)

PS	FEASIBILITY/PLANNING TEAM ISSUE	RT	IG	16.07.2020
PS	FEASIBILITY/PLANNING TEAM ISSUE	RT	IG	16.07.2020
PS	FEASIBILITY/PLANNING TEAM ISSUE	RT	IG	26.05.2020

Rev	Description	By	CHK	Date



**NORTHMILL**  
associates

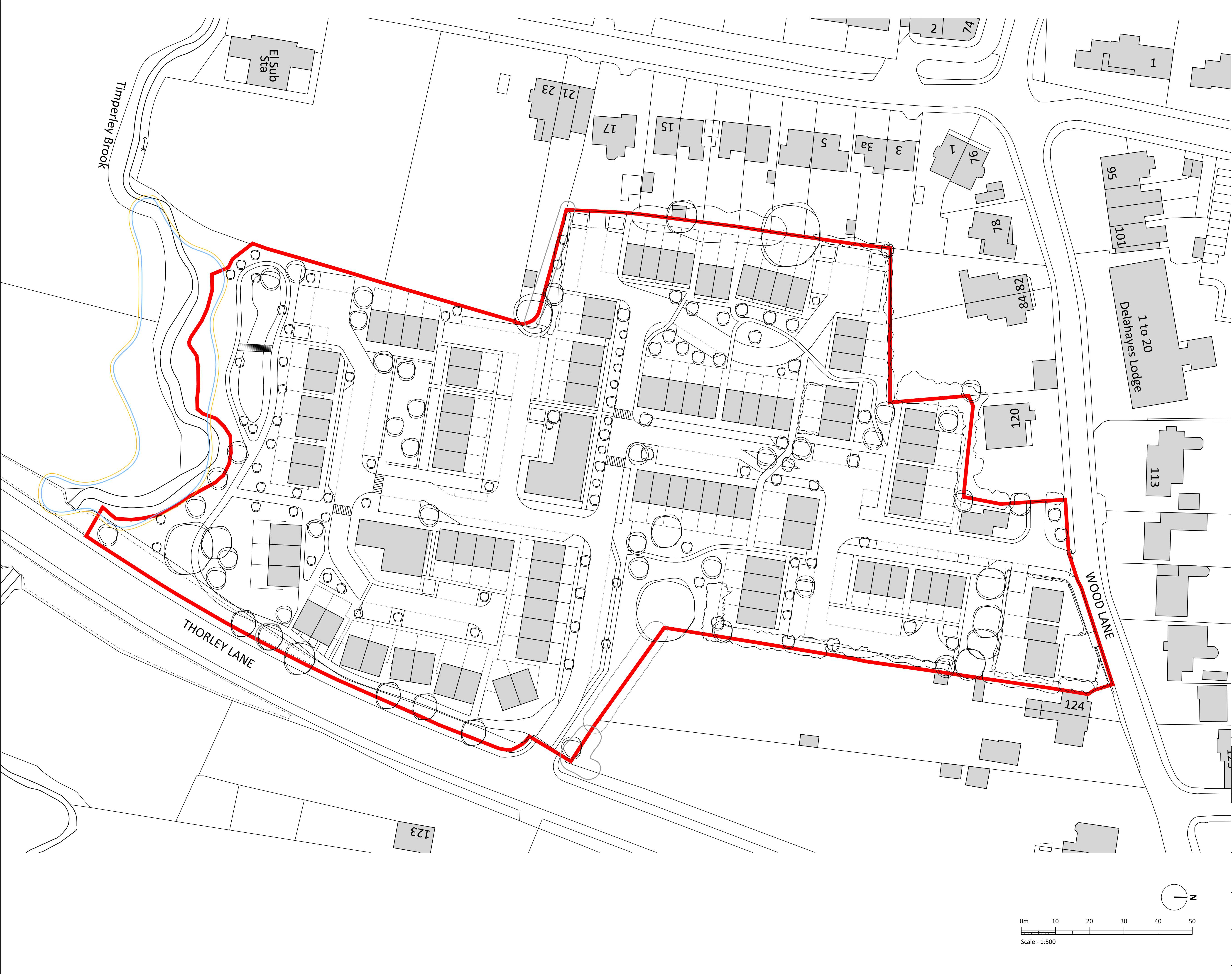
Units 1-100 Floor 10 Kingsway, Manchester, M2 8JZ  
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www.northmill.co.uk

Project  
World of Pets and Leisure, Timperley

Client  
Harlex Ltd

Drawing  
Proposed Outline Masterplan

Project No: 2530	Scale @ A1 1:500 (A1)	Date: 13/05/20
Drawn: RET	Checked: IG	Status: PLANNING
Drawing No: MP_L(01)101		Revision: P6








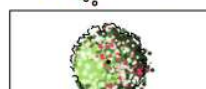
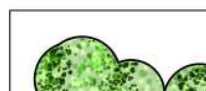

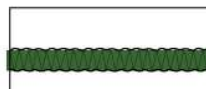

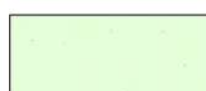







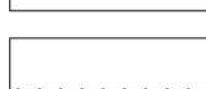

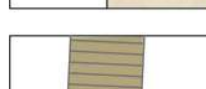
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## Appendix 7: Landscape Layout





KEY & NOTES

-  Existing Trees to be Retained  
Refer to drawings and report by \*\*\* for further information
-  Existing Vegetation to be Retained  
Refer to drawings and report by \*\*\* for further information
-  Proposed Trees  
Native species including Alder, Oak, Lime, Birch, Field Maple and Willow species around the pond and brook.
-  Proposed Ornamental Trees  
Smaller sized flowering species including Cherry, Amelanchier, Rowan and Whitebeam.
-  Proposed Woodland Understorey  
Native species understorey planting including Hawthorn, Elder, Hazel, Dog Rose and Spindle.
-  Proposed Native Species Hedge  
2m high mixed native species including Hawthorn, Blackthorn, Dog Rose, Spindle and Field Maple
-  Proposed Hedgerows  
1.5m high species including Beech and Laurel
-  Proposed Areas of Shrub Planting  
A mix of predominantly native species ground cover and perennial planting.
-  Lawn
-  Buildings  
Refer to drawings by Northmill Architects
-  Meadow  
Species rich meadow planting
-  Sett Thresholds
-  Resin Bound Gravel
-  Permeable Tegula Type Paving
-  Proposed SUDs/Swales  
Planted with appropriate riparian and aquatic species
-  Proposed Fence  
1.8m high timber fencing
-  Proposed Railing  
1.2m high steel railings
-  Proposed Paths & Patios
-  Timber Boardwalk

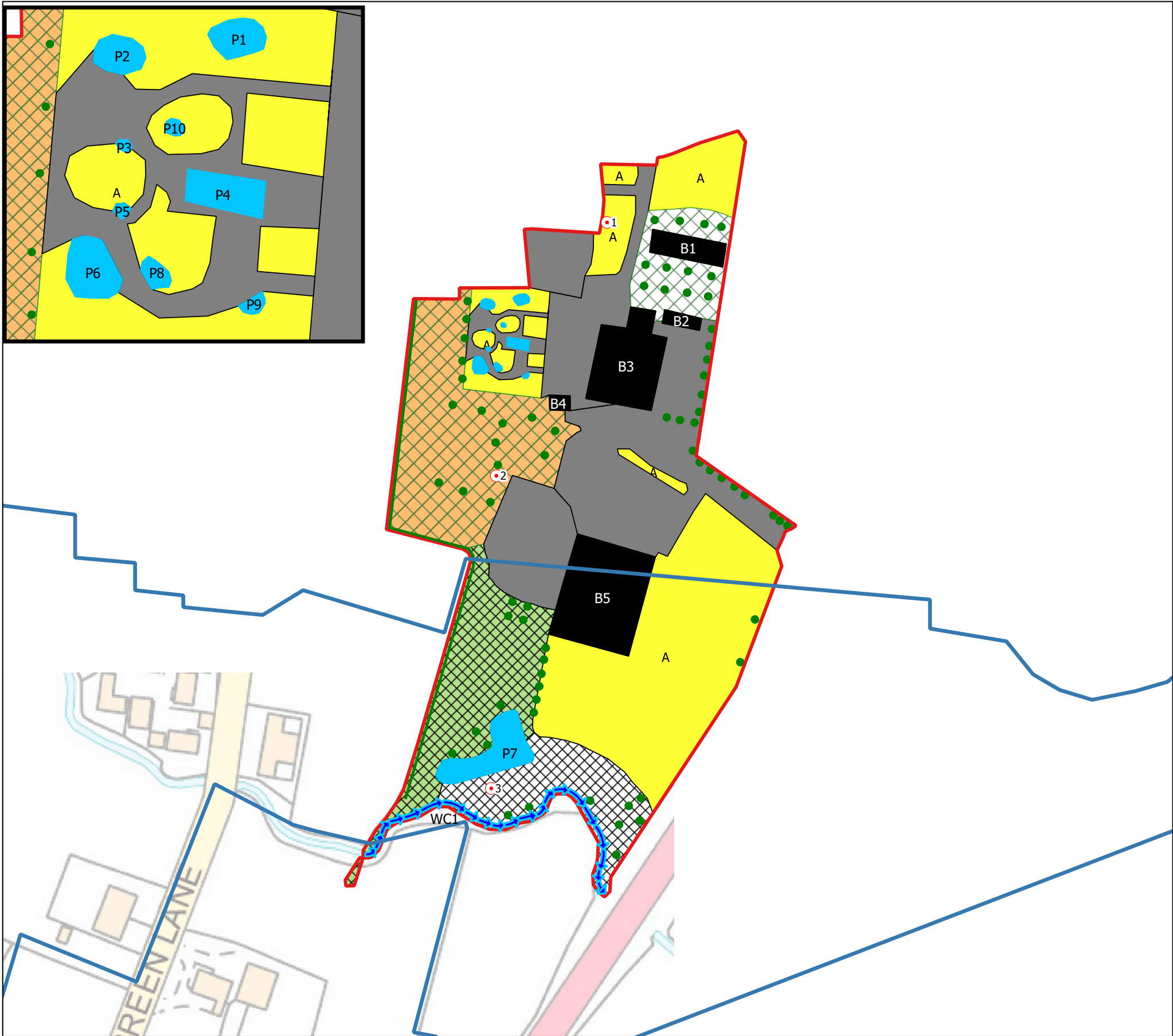


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## Plans

Plan 1: Habitat Features (12123/P02a)

Plan 2: Bat Surveyor Locations (12123/P04)



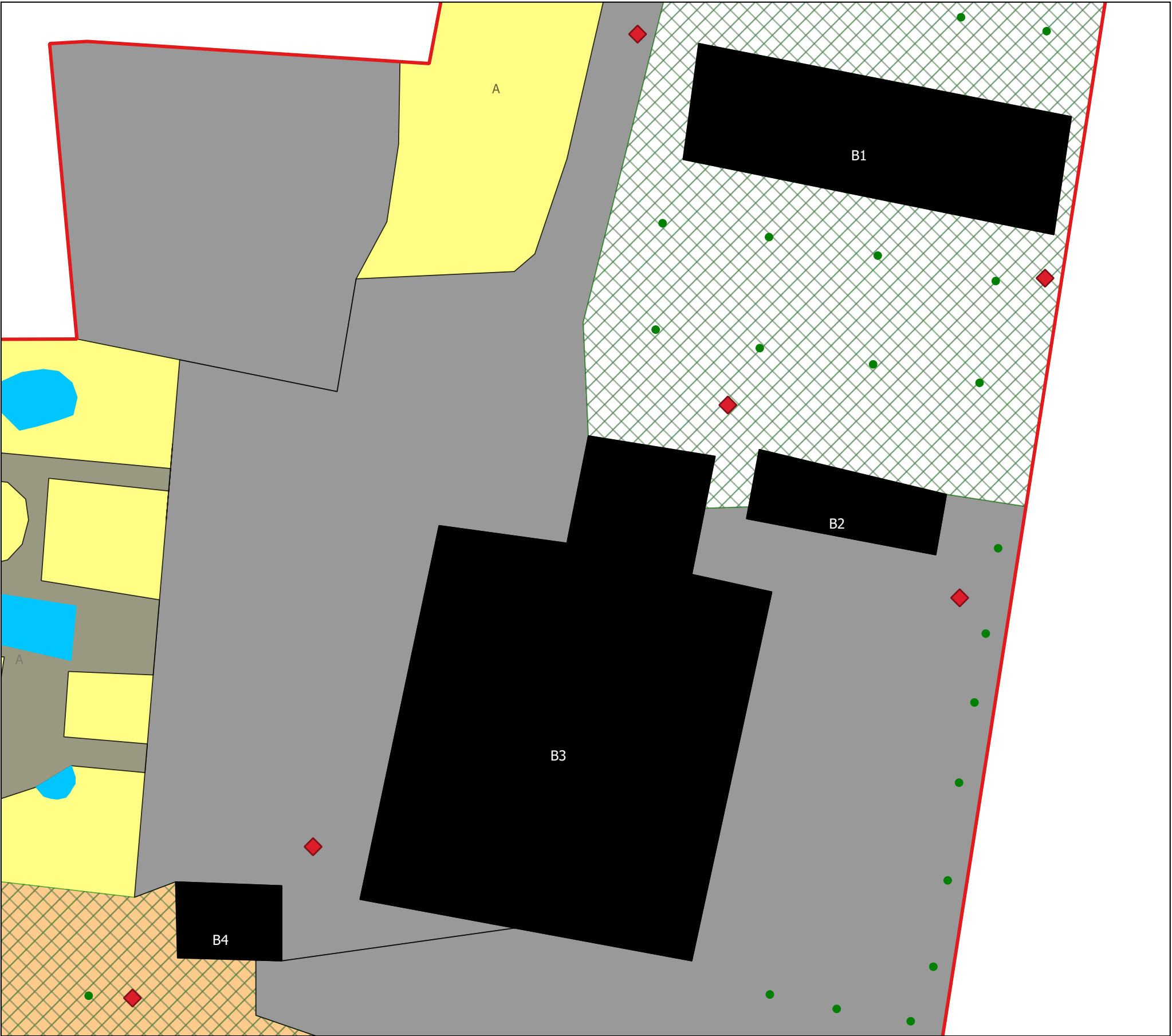
Legend

- Site Boundary
- A Amenity Grassland
- Brook
- Building
- Ephemeral/ Scrub
- Ephemeral Short Perennial
- Grassland/ Scrub
- Hardstanding
- Hedge
- Pond
- Broadleaf Tree
- Scattered Scrub
- Target Note
- Wildlife Corridor

Project	World of Pets and Leisure
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	12123/P02
Date	June 2020
Checked	LRD/AS



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Legend

- Building
- Surveyor Locations



Project	World of Pets and Leisure
Drawing Title	Surveyor locations
Scale	As Shown (Approximate)
Drawing No.	12123/P04
Date	June 2020
Checked	LRD/AS