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PRELIMINARY ECOLOGICAL APPRAISAL

At

Land at former Waterside Pub

Kay Street
Summerseat
Bury
Greater Manchester
BL9 5PE

NGR: (SD) 379381 415094

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A handwritten signature in black ink, appearing to read 'Toby Hart', is positioned below the 'Approved by:' line.

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EXECUTIVE SUMMARY

United Environmental Services Ltd (UES) was commissioned by Kingsley Properties Ltd to carry out a baseline ecological survey of a parcel of land at the former Waterside Pub, Kay Street, Summerseat in Bury, Greater Manchester. A desk study and preliminary ecological appraisal (PEA) survey were undertaken on 2nd July 2018, including searches using the Multi Agency Geographic Information Centre (MAGIC).

The PEA provides an assessment of potential ecological impacts associated with the development of the land parcel. The development proposals include the construction of an apartment building comprising 18 residential flats with associated parking areas and landscaping

The land parcel has an area of approximately 0.2ha and is dominated by hardstanding with encroaching ephemeral / short perennial vegetation. The River Irwell runs offsite along the northern site boundary. The site also borders an area of woodland to the east, a thin strip of which runs along the southern site boundary. Other habitats present on site include scattered trees, introduced shrubs and species-poor, semi-improved grassland.

The results of the survey combined with the results of the desk study have highlighted the requirement for further work in relation to the following habitats and species:

- **Bats** – aerial tree inspections should be undertaken of the two trees assessed as having potential to support roosting bats, as they are to be removed as part of the development proposal.
- **Breeding birds** – vegetation clearance and tree felling works are to take place outside of the breeding bird season, which runs from March to August inclusive. If not possible, a targeted nest survey is to be undertaken or an ecological clerk of works appointed to oversee the works.
- **Invasive species** – an invasive species method statement should be prepared to detail how Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera*, variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum* and rhododendron *Rhododendron ponticum* will be eradicated on site.
- **Otters** – any external lighting should be directed away from the river to ensure that there is minimal disturbance to any otters using the river for commuting or foraging purposes. Precautionary reasonable avoidance measures (RAMs) are also recommended to minimise the risk of harm to any otters commuting through the local area in the unlikely event that they enter the site.
- **Watercourse** – specific procedures and control measures to be implemented to ensure that there is no risk of input into the River Irwell. The measures should be set out by the contractors prior to commencement and agreed with the LPA and other statutory consultees.
- **Woodland and trees** – to be retained where possible, or replaced as part of a detailed landscaping scheme. Generic issues relating to root protection areas. The woodland to the east of the site should be adequately protected during the construction activities on site



Mitigation measures, as detailed in section 4, should be adhered to, which may in some cases negate the need for further survey work.

The development also presents an opportunity to improve the habitats on site for wildlife, such as bats and birds. The inclusion of nest boxes and bat boxes will provide suitable nesting and roosting features in the long term.

This report should be read with appendices 1 to 6, which include results of the desk study, GIS phase 1 habitat mapping, photographs of site and relevant statutory guidance.

1 INTRODUCTION

1.1 Author, surveyors, qualifications and scope of study area

This report is written by Tom Kenwright BSc MSc, UES Graduate Ecologist. Tom holds a level 4 Botanical Society for Britain and Ireland (BSBI) field identification skills certificate (FISC), which certifies him as competent to undertake botanical and habitat surveys up to National Vegetation Classification (NVC) level.

The report provides an assessment of the potential ecological impacts associated with the proposed development of a parcel of land at the former Waterside Pub, Kay Street, Summerseat in Bury, Greater Manchester

The zone of influence considered within the scope of the survey includes all land within the red line boundary. Where relevant, other ecological resources, receptors and important habitats which are spatially separate from the site are considered.

1.2 Survey objectives

UES was commissioned in June 2018 to conduct a PEA of the proposed development site. This was completed in order to:

- Establish baseline conditions and determine the importance of ecological features present or potentially present within the survey area
- Identify key ecological constraints to the project
- Make recommendations for design options to avoid significant effects on important ecological resources at an early stage of development planning
- Identify potential requirement for further surveys for nationally or internationally protected species which may be present on site
- Identify potential requirement for mitigation or compensation, including measures that may be required based on further surveys

1.3 Proposed development

The development proposals include the construction of an apartment building comprising 18 residential flats with associated parking areas and landscaping

1.4 Structure of the report

This report is a baseline appraisal that forms the basis for further ecological surveys and Environmental Impact Assessments (EIA) if required. In the majority of cases the preliminary ecological assessment will not provide all the ecological data required by the Local Planning Authority to determine an application, especially in the event that protected habitat or species issues are present or likely.



This report should be read with appendices 1 to 6, which include results of the desk study, GIS phase 1 habitat mapping, photographs of site and relevant statutory guidance.

2 METHODOLOGY

This PEA comprises a desk study and a field survey. The desk study is conducted in order to collate ecological information on species and / or habitats of interest that may be present. The field survey is conducted in order to assess the habitats and their importance, both on site and in the context of their wider surroundings.

2.1 Desk study

The following resources were used to inform the desk study:

- National – Using the UK government’s MAGIC website, statutorily protected sites were scoped to a distance of 10km from the application site.
- Local – UES has not been commissioned to undertake an environmental records search at this point.

2.2 Field survey

An ecological walkover survey was carried out on 2nd July 2018 by Tom Kenwright. The purpose of the survey was to identify, record and map dominant habitats types within the development area and highlight any further species surveys that may be required based on the quality of those habitats. When conducting the surveys particular focus was concentrated on the following species and habitat features:

- | | |
|------------------|-------------------------|
| • Amphibians | • Hedgerows |
| • Reptiles | • Plant communities |
| • Badger | • Invasive species |
| • Bats | • Otter |
| • Hazel dormouse | • Water vole |
| • Birds | • White-clawed crayfish |
| • Trees | |

The habitats were assessed by using the phase 1 habitat survey technique, which is a system for environmental audit widely used within the environmental consultancy field. The survey was undertaken in accordance with the methodology in the ‘Handbook for phase 1 habitat survey - A technique for environmental audit’ (JNCC, 2010) as recommended by Natural England, and in the “Guidelines for Preliminary Ecological Appraisal” (CIEEM, 2013).

The survey area encompasses all of the land within the development footprint and the land to a distance of 30m outside it where accessible. In line with recognized guidelines, ponds were also scoped to a distance of 500m (250m radius from the survey area).

The phase 1 habitat survey methodology was extended to record any signs of habitats suitable to support protected / invasive species and any incidental observations of other noteworthy species.

2.3 Survey limitations



No limitations were encountered during the survey.

3 RESULTS

3.1 Desk study

A desk study was conducted for the proposed development site and surrounding area. Statutorily protected sites were scoped to a distance of 10km. Further results of the desk study can be found at Appendix 1 – Desk study.

3.1.1 Protected sites

There are two statutorily protected sites within 2km of site:

- Redisher Wood LNR¹ (approximately 1680m north-west)
The designation covers c.13 ha of ancient woodland, semi-natural broad-leaved woodland, scrub, neutral grassland, acid grassland, acid heath, marshy grassland, standing water/running water, swamp and bracken.
- West Pennine Moors SSSI² (approximately 1830m north-west)
The West Pennine Moors SSSI supports an extensive mosaic (c.7600 ha) of upland and upland-fringe habitats. It is of special interest for the following nationally important features that occur within and are supported by the wider habitat mosaic:
 - blanket bogs;
 - wet and dry heathlands;
 - acid and lime-rich flushes;
 - rush pastures and mire grasslands;
 - acid grasslands;
 - neutral hay meadows and pastures;
 - wet and dry broadleaved woodlands and scrub;
 - diverse assemblages of upland moorland, in-bye and woodland breeding birds;
 - breeding black-headed gulls *Chroicocephalus ridibundus*, Mediterranean gulls *Larus melanocephalus* and grey herons *Ardea cinerea*; and
 - populations of starry lady's-mantle *Alchemilla acutiloba*, large-toothed lady's-mantle *A. subcrenata* and floating water-plantain *Luronium natans*.

The site lies within a SSSI Impact Risk Zone (IRZ) however Natural England advise that they do not need to be consulted on proposals of this nature.

There are eight statutorily protected sites (designated for ecological reasons) within 2 – 10km of site:

- | | |
|---|-------------------------------------|
| • Chesham Woods – LNR | • Lower Red Lees Pasture – SSSI |
| • Eagley Valley – LNR | • Moses Gate – LNR |
| • Gale Clough and Shooterslee Wood – SSSI | • Nob end – LNR |
| • Healey Dell – LNR | • Nob end – SSSI |
| • Hollins Vale – LNR | • Ousel Nest Quarry – LNR |
| • Hopwood Woodland – LNR | • Rochdale Canal – SAC ³ |
| | • Rochdale Canal – SSSI |

¹ LNR – Local nature reserve

² SSSI – Site of special scientific interest

³ SAC – Special area of conservation

- Kirklees Valley – LNR
- Leverhulme – LNR
- Seven Acres – LNR
- Upper Bradshaw Valley – LNR

3.2 Baseline conditions – Habitats

The results of the PEA are also shown on the accompanying map at Appendix 2 – Phase 1 habitat plan. Habitats are colour-coded in accordance with the phase 1 standard.

The local area predominantly consists of a mosaic of residential areas, woodland and pasture fields. The following principle habitat types were characterised on site:

- A1.1.1 Broad-leaved, semi-natural woodland
- A3.1 Broad-leaved, scattered trees
- B6 Species-poor, semi-improved grassland
- G2 Running water
- J1.3 Ephemeral / short perennial
- J1.4 Introduced shrubs
- J5 Hardstanding

3.2.1 A1.1.1 Broad-leaved, semi-natural woodland

The site lies on the edge of an area of woodland that runs east along the southern edge of the River Irwell. A thin strip of this woodland extends along the southern boundary of the site and partly lies within the site boundary. Sycamore *Acer pseudoplatanus* is the dominant tree species within the woodland, but there is also a low number of ash *Fraxinus excelsior* trees. Within the main section of woodland to the east of the site, the trees are mature and well-spaced apart, resulting in less competition for light. Light penetrates down to the understorey, which includes: ash, hawthorn *Crataegus monogyna*, holly *Ilex aquifolium*, an ornamental honeysuckle *Lonicera sp.*, elm *Ulmus sp.*, ivy *Hedera helix*, herb robert *Geranium robertianum*, wood avens *Geum urbanum*, hogweed *Heracleum sphondylium*, hart's-tongue fern *Asplenium scolopendrium*, common male fern *Dryopteris filix-mas*, stinging nettle *Urtica dioica*, hedge garlic *Alliaria petiolata* and enchanter's nightshade *Circaea lutetiana*.

The section of the woodland that partly lies within the site and runs along the southern boundary of the site is of poor quality compared to the rest of the woodland, as there are few trees, which are very scattered resulting in areas of no canopy cover.

The invasive species variegated yellow archangel *Lamium galeobdolon subsp. Argentatum* is present within the strip of woodland that extends along the southern site boundary (see Appendix 2 – Target Note 3). In addition, a large amount of Himalayan balsam *Impatiens glandulifera* is present throughout the woodland in its entirety.

3.2.2 A3.1 Scattered broad-leaved trees

The majority of the trees on site lie within the woodland that borders the site, however there are a number of scattered trees at the site boundaries that are independent of the woodland and appear to have been planted independently. Scattered trees are mapped on the accompanying phase 1 habitat plan at Appendix 2. The scattered trees are all semi-mature or

younger. Species present include sycamore, cherry *Prunus* sp., beech *Fagus sylvatica*, London plane *Platanus × acerifolia*, and cypress *Cupressus* sp.

3.2.3 B6 Species-poor, semi-improved grassland

There is a small section of grassland along the southern site boundary which has recently formed from an area of disturbed ground that has been encroached by ephemeral vegetation and has begun to succeed into grassland. This habitat has been classified as grassland due to its high ratio of grasses to forbs. Species present include rough meadow grass *Poa trivialis*, Yorkshire fog *Holcus lanatus*, creeping bent *Agrostis stolonifera*, cock's foot *Dactylis glomerata*, false oat-grass *Arrhenatherum elatius*, creeping soft grass *Holcus mollis*, meadow foxtail *Alopecurus pratensis*, meadow buttercup *Ranunculus acris*, creeping buttercup *Ranunculus repens*, common sorrel *Rumex acetosa*, broad-leaved dock *Rumex obtusifolius*, great willowherb *Epilobium hirsutum* and creeping thistle *Cirsium arvense*.

3.2.4 G2 Running water

The River Irwell flows west to east along the northern site boundary. The river was shallow at the time of the survey with deeper pockets of still water. There are no banks along the section of river that runs along the site boundary. The river is instead surrounded by a stone retaining wall and the site is raised approximately 5m above the river.

3.2.5 J1.3 Ephemeral / short perennial

The majority of the site comprises hardstanding and bare ground that is being encroached by short perennial / ephemeral vegetation. This ephemeral vegetation has not been mapped on the accompanying phase one map (see Appendix 2) as it is present within the entire area of hardstanding on site. Species present include common ragwort *Jacobaea vulgaris*, greater plantain *Plantago major*, American willowherb *Epilobium ciliatum*, cock's foot, lesser trefoil *Trifolium dubium*, annual meadow grass *Poa annua*, dandelion *Taraxacum officinale*, common mouse-ear *Cerastium fontanum*, prickly sow thistle *Sonchus asper*, meadow buttercup, common bent *Agrostis capillaris*, herb robert, butterfly bush *Buddleja* sp., hoary willowherb *Epilobium parviflorum*, ivy-leaved toadflax *Cymbalaria muralis*, false oat-grass, creeping bent, stinging nettle, hedge woundwort *Stachys sylvatica*, broad-leaved dock, field horsetail *Equisetum arvense*, perforate St John's-wort *Hypericum perforatum*, foxglove *Digitalis purpurea*, hedge bedstraw *Galium mollugo*, lady's mantle *Alchemilla* sp., common comfrey *Symphytum officinale*, sweet vernal grass *Anthoxanthum odoratum*, perennial ryegrass *Lolium perenne*, soft rush *Juncus effusus*, wood avens, rosebay willowherb *Chamaenerion angustifolium*, hedge garlic, silver birch *Betula pendula* saplings, alder *Alnus glutinosa* saplings, cleavers *Galium aparine*, maidenhair spleenwort *Asplenium trichomanes*, Welsh poppy *Meconopsis cambrica*, nipplewort *Lapsana communis* and wall lettuce *Lactuca muralis*.

The invasive species Himalayan balsam and Japanese knotweed *Fallopia japonica* (see Appendix 2 – Target note 2) were also observed amongst the ephemeral / short perennial vegetation growing within the damaged hardstanding and areas of disturbed ground on site.

3.2.6 J1.4 Introduced shrubs

The site contains a number of areas of introduced shrubs that remain from a previous planting scheme. These areas have since become overgrown and also contain a number of native scrub species. Species present include cherry laurel *Prunus laurocerasus*, grey willow *Salix cinerea*, bramble *Rubus fruticosus* agg, rhododendron *Rhododendron ponticum*, snowberry *Symphoricarpos* sp., cherry *Prunus* sp., rose *Rosa* sp. and an introduced honeysuckle *Lonicera* sp.

3.2.7 J5 Hardstanding

The majority of the site comprises hardstanding and areas of disturbed ground from the former Waterside pub which is no longer present on site. The hardstanding on site is damaged and there are numerous cracks and gaps where ephemeral / short perennial vegetation has encroached as described in section 3.2.6 above.

3.3 Baseline conditions – Protected species or resources

As part of the PEA, specific observations of wildlife were also recorded. Wildlife observations focused on protected species, invasive species or species of conservation concern. Habitats with potential to support protected species were noted with a view to follow up surveys if required.

3.3.1 Amphibians

There is a single mapped pond within 250m of the proposed development site, which is located approximately 100m north-east of the site. This pond appears to part of a flood storage area associated with a weir of the River Irwell. This pond could not be accessed during the walkover survey as it is on third party land, but from aerial photographs the pond appears to be covered by dense woodland / scrub. The pond is poorly connected to the site as it lies across the River Irwell which may act as a barrier to amphibian movement due to the steep retaining walls.

There are no further mapped ponds within 500m of the proposed development site and the site is poorly linked to areas of suitable aquatic habitat.

The terrestrial habitats within the development footprint are broadly unsuitable for great crested newts (GCNs) *Triturus cristatus*. The majority of the site is hardstanding, which provides limited opportunities amphibians. The areas of grassland and the offsite woodland provide some sheltered commuting and foraging opportunities, whilst there are also some hibernation opportunities in the exposed tree root systems in the woodland.

GCNs are not considered to be present on site or within the immediate vicinity of the proposed development site.

3.3.2 Reptiles

The habitats on site are broadly unsuitable for reptiles. The only habitat on site with the potential to support reptiles is the woodland edge on the eastern site boundary. The majority of the site is composed of hardstanding and offers limited foraging opportunities for reptiles.

Reptiles are not considered to be present on site or within the immediate vicinity of the site.



3.3.3 Badger

No evidence of badger *Meles meles* activity was observed on site during the walkover survey. The habitats within the site boundary are broadly unsuitable for use by badgers as the majority of the site is composed of hardstanding. There are much more suitable habitats for foraging and sett building within the local area including the woodland to the east.

Badgers are not considered to be present on site or within the immediate vicinity of the site.

3.3.4 Bats

There are no buildings on site which could be used by roosting bats. However, there are two suitable trees on site (see Appendix 2 – Phase 1 habitat plan, Target Note 1).

Two of the scattered trees, an ash and a London plane, around the site boundaries have features which appear to have the potential to be used by roosting or hibernating bats.

All trees within the development boundary were subject to a ground level tree inspection for bat roost potential.

3.3.5 Hazel dormouse

The habitats on site are relatively unsuitable for hazel dormice *Muscardinus avellanarius*. The offsite woodland which borders the site to the east provides some suitable habitat. This woodland however lacks key species such as hazel and honeysuckle *Lonicera periclymenum* and its small size and lack of connectivity to larger areas of woodland render it less suitable.

Dormice are not considered to be present on site or within the immediate vicinity of the site.

3.3.6 Birds

Although a targeted bird survey was not conducted during the site visit, woodpigeon *Columba palumbus* and blackbird *Turdus merula* were recorded whilst on site.

Areas of woodland, scattered trees and introduced shrubs all provide suitable nesting opportunities for breeding birds in the summer.

3.3.7 Trees

There are no tree species on site which are afforded statutory protection.

3.3.8 Hedgerows

There are no hedgerows present on site.



3.3.9 Plant communities

No plant communities or individual species were recorded on site which are afforded statutory protection in their own right.

3.3.10 Invasive species

Himalayan balsam is present across the majority of site, including dense stands within the woodland and smaller encroaching stands within the areas of damaged hardstanding. Himalayan balsam individually been mapped on the accompanying phase one map (see Appendix 2) due to the large number of stands and the large area that it covers. Himalayan balsam plants were also observed growing amongst the marginal vegetation along the River Irwell. A number of Japanese knotweed saplings are also present within damaged areas of hardstanding on site (see Appendix 2 – Target Note 2.)

A large stand of variegated yellow archangel is present within the woodland that runs along the southern site boundary and is beginning to encroach onto the site (see Appendix 2 – Target note 3).

A single stand of rhododendron was observed within the woodland to the south of the site (see Appendix 2 – Target note 4).

3.3.11 Otter

The River Irwell provides some suitable habitat for foraging and commuting otters however there is no suitable holt building habitat along the section of river that borders the site due to the presence of the retaining wall. No evidence of otter activity or potential holts were observed on site or within the areas of woodland within the immediate vicinity of the site which were included within the walkover survey. There is the potential for there to be more suitable holt building habitats further up or downstream including within the more distant areas of woodland that borders the river.

The development footprint contains no suitable foraging, commuting or holt building habitat and there are no otter holts within the immediate vicinity of the site. However, there is the potential for otters to use the habitats within the vicinity of the site in a transitory capacity.

3.3.12 Water vole

The River Irwell is generally unsuitable for water vole *Arvicola amphibius* due to the lack of banks to provide suitable burrowing habitat. The base of the river is lined with rocks and large retaining walls surround the river with no banks available to dig burrows. The site is located atop the retaining wall along the southern edge of the river. Due to the 5m drop between the site and the river and the lack of burrowing habitat, it is considered that the development proposals will have no impact upon water vole.

3.3.13 White-clawed crayfish

The River Irwell provides suitable habitat for white-clawed crayfish *Austropotamobius pallipes* and populations are known to exist within the River Irwell catchment. However, the



development will have no impact upon the river. It is considered that the only potential impacts upon the river could be through the indirect impacts of pollution.



4 EVALUATION AND RECOMMENDATIONS

This section provides a brief assessment of the likely impacts associated with the proposed development on the receptors identified during the walkover survey and desk study. It also includes any mitigation and compensation measures which may be required for the proposed development to proceed.

4.1 Habitats

4.1.1 Designated sites

The sites identified during the desk study were cross-referenced with the survey area relevant to this report. The closest statutorily protected site is Redisher Woods LNR, which lies approximately 1.7km to the north-west of the proposed development site.

Given the distances from site and the scale of development, it is considered unlikely that the proposed development will have any direct or indirect impact on this or any other local designated sites.

4.1.2 Trees

There are a number of trees on the site, which vary in condition and maturity.

Construction impacts

Site clearance and setting out may involve the direct loss of trees on site as an ecological resource or may result in damage to any trees which are to be retained.

Mitigation

Trees, in particular those forming a linear feature across the site, should be retained where possible.

A BS5837 arboricultural survey should be undertaken to catalogue the location and species of the trees on site. This should include establishing and implementing root protection areas (RPAs) around the trees to be retained. These areas should be adequately protected by appropriately designed protective barriers and ground protection throughout the entire development process.

Compensation

If any trees are to be removed, they should be replaced accordingly as part of a detailed landscaping scheme, with only native species to be planted.

Operational impacts

No operational impacts are envisaged.

4.1.3 Woodland



There is a small copse of woodland that borders the site to the east.

Construction impacts

The woodland could be permanently damaged, altered and / or disturbed by the construction activities.

Mitigation

The woodland should be adequately protected during the construction activities on site. It should be fenced off to protect the root systems of the trees within, and no contractors should access the woodland unless authorised to do so or for reasons related to working within the woodland (e.g. protecting it from construction activities). No materials should be stored in the woodland and no temporary or permanent external lighting should be directed onto the woodland.

Compensation

If any woodland on site is to be removed, it should be replaced two-fold in terms of area in an appropriate location.

Operational impacts

No operational impacts are envisaged.

4.1.4 Watercourse

The River Irwell flows along the northern site boundary.

Construction impacts

Construction works adjacent to The River Irwell could result in disturbance and / or pollution to the watercourse.

Mitigation

Specific procedures and control measures will need to be implemented to ensure that there is no risk of input into the watercourse. These measures should be set out by the contractors prior to the commencement of works and will need to be agreed with the Local Planning Authority (LPA) and other statutory consultees. These measures should conform to best practice guidance and include the cleaning of all machinery and equipment before use on site to prevent contamination of the watercourse with foreign abiotic and biotic materials.

Operational impacts

No operational impacts are envisaged.



4.2 Species

4.2.1 Bats

There are two on site which contain features that are suitable for roosting bats. The arboricultural impact report prepared for the site shows that these trees are scheduled to be removed as part of the proposals (see DEP Arboricultural report December 2018).

Construction impacts

If bats are roosting within the trees during site clearance and tree felling, they are at risk of direct harm and disturbance and the roosts will be lost permanently. Inappropriate landscaping could also result in the severing of commuting corridors used by bats as well as the loss of foraging habitats.

Mitigation

Aerial tree inspections should be conducted of the two trees identified as having potential to support roosting bats as they are due to be removed as part of the proposals. These inspections can be undertaken at any time of year. If any potential roosting features are found to still be suitable following the inspections, bat presence / absence surveys may be required (May to September inclusive).

Any external lighting should be avoided away from the river, woodland and any installed bat boxes to ensure that there is minimal disturbance to any bats using these habitats for foraging commuting or roosting.

Operational impacts

To be assessed following the further surveys.

4.2.2 Birds

There are a number of habitats, such as woodland, introduced shrubs, dense scrub and mature trees which could support breeding birds.

Construction impacts

Vegetation removal could result in the direct loss of nests, any individuals within the nests and of available nesting territories if conducted during the breeding season.

Mitigation

Site clearance and vegetation removal (including enabling works) should be carried out outside of the breeding bird season, March to August inclusive. If this is not possible, a targeted breeding bird nest scoping survey should be conducted prior to the start on site or an ecological clerk of works appointed.

Compensation



If extensive areas of vegetation are to be removed, consideration should be given to providing replacement habitat for foraging and nesting birds. Bird boxes that could be affixed to trees or newly constructed buildings on site include:

- Schwegler 1B nest box
- Schwegler 3S starling nest box
- Schwegler 1SP sparrow terrace
- Schwegler 1MR Avianex

Correct siting of bird boxes should be conducted with the aid of the project ecologist.

Landscaping can also be used to promote biodiversity through the appropriate design of habitats and creating habitat mosaics, which promote natural linkages and hence the dispersal of target species. Principles and landscaping ideas beneficial to wildlife and relevant to this site include:

- Planting and management of hedgerows
- Planting of berry and nut bearing shrub species to encourage winter birds
- Planting and management of shrubs which develop a mosaic of structures to support breeding birds
- Use of nectar bearing flowers to encourage invertebrates (such as bees, flies, beetles and butterflies)

Species are to be native, of local provenance or to have a proven benefit to biodiversity. Further information can be found at Appendix 5 – Landscape design for birds.

Operational impacts

Inappropriate management of the habitats on site could degrade them and render them unsuitable for wildlife.

Mitigation

It is important to implement good horticultural practice in any landscaping scheme, including the use of peat-free composts, mulches and soil conditioners. The use of pesticides (herbicides, insecticides, fungicides and slug pellets) should be discouraged to prevent fatal effects on the food chain. Any pesticides used should be non-residual.

Excessive removal or pruning of trees and hedgerows should be avoided to maximise the growth and plant matter available to wildlife. Pruning should be left until late winter to leave seeds and berries for wintering wildlife and to ensure no impact on breeding and nesting birds.

4.2.3 Invasive species

Stand of Japanese knotweed, variegated yellow archangel and rhododendron were observed on site during the walkover survey. In addition, Himalayan balsam is present across the majority of the site and through the offsite woodland to the east. Japanese knotweed, Himalayan balsam, variegated yellow archangel and rhododendron are listed under Schedule 9 of the Wildlife and Countryside Act 1981. As such, it is an offence to plant or otherwise cause these species to grow in the wild.



Construction impacts

Site clearance and setting out could result in the disturbance and dispersal of these invasive species on and off site.

Mitigation

Invasive species will need to be eradicated as part of the works. It will likely be required that these species are treated prior to the start of works on site in order to ensure that they do not spread across the site or onto adjacent areas. An invasive species method statement should be prepared to detail the methods and timings of the eradication. It is essential that a competent and qualified person carries out any herbicide treatment.

Operational impacts

If an invasive species method statement is prepared and the invasive species are eradicated on site, no further operational impacts are envisaged. However, complete eradication is an ongoing process, and if it is not treated as such, these species can return and continue to spread. This could become more acute with increased activity on site.

4.2.4 Otter

The River Irwell that flows along the sites northern boundary has the potential to support commuting and foraging otters. The development footprint contains no suitable foraging, commuting or holt building habitat and there are no otter holts within the immediate vicinity of the site. However, there is the potential for otters to use the habitats within the vicinity of the site in a transitory capacity.

Construction impacts

The proposed development could potentially cause disturbance through inappropriate lighting, as well as indirect habitat degradation through changes in the water quality.

Mitigation

Any external lighting should be avoided away from the river to ensure that there is minimal disturbance to any otters using the river for commuting or foraging.

The following RAMs should be implemented on site during the construction phase of the development:

- Chemical and other hazardous material (i.e. barbed wire) should be stored appropriately to avoid harm to otters and other wildlife.
- Trenches or excavations should be covered at the end of each day or a ramp should be included to provide a means of escape for any otter or other animal that may fall in.
- Any exposed pipework should be capped in a way to prevent otter access as this may happen when contractors are off site.
- UES will remain on-call throughout the development and if any otters are encountered, advice is to be sought. UES can be contacted directly on **01565 757788**.



As described in section 4.1.4 above, specific procedures and control measures will need to be implemented to ensure that there is no risk of input into the watercourse.

Operational impacts

No operational impacts are envisaged.



5 CONCLUSION

The land parcel has an area of approximately 0.2ha and is dominated by hardstanding with encroaching ephemeral / short perennial vegetation. The River Irwell runs off site along the northern site boundary. The site also borders an area of woodland to the east, a thin strip of which runs along the southern site boundary. Other habitats present on site include scattered trees, introduced shrubs and species-poor, semi-improved grassland.

The preliminary ecological appraisal has highlighted potential issues with the following ecological receptors on or adjacent to site: trees, woodland, watercourse, breeding birds, bats, invasive species and otter. Provided these issues are addressed in accordance with the recommendations detailed in this report, the development may proceed without adversely impacting the aforementioned ecological receptors.

The development also presents an opportunity to enhance the habitats available to wildlife on site. The provisioning of bat and bird nest boxes on site will provide improved roosting and nesting opportunities into the long-term future of the site.



6 REFERENCES

CIEEM (2013). *Guidelines for Preliminary Ecological Appraisal*.

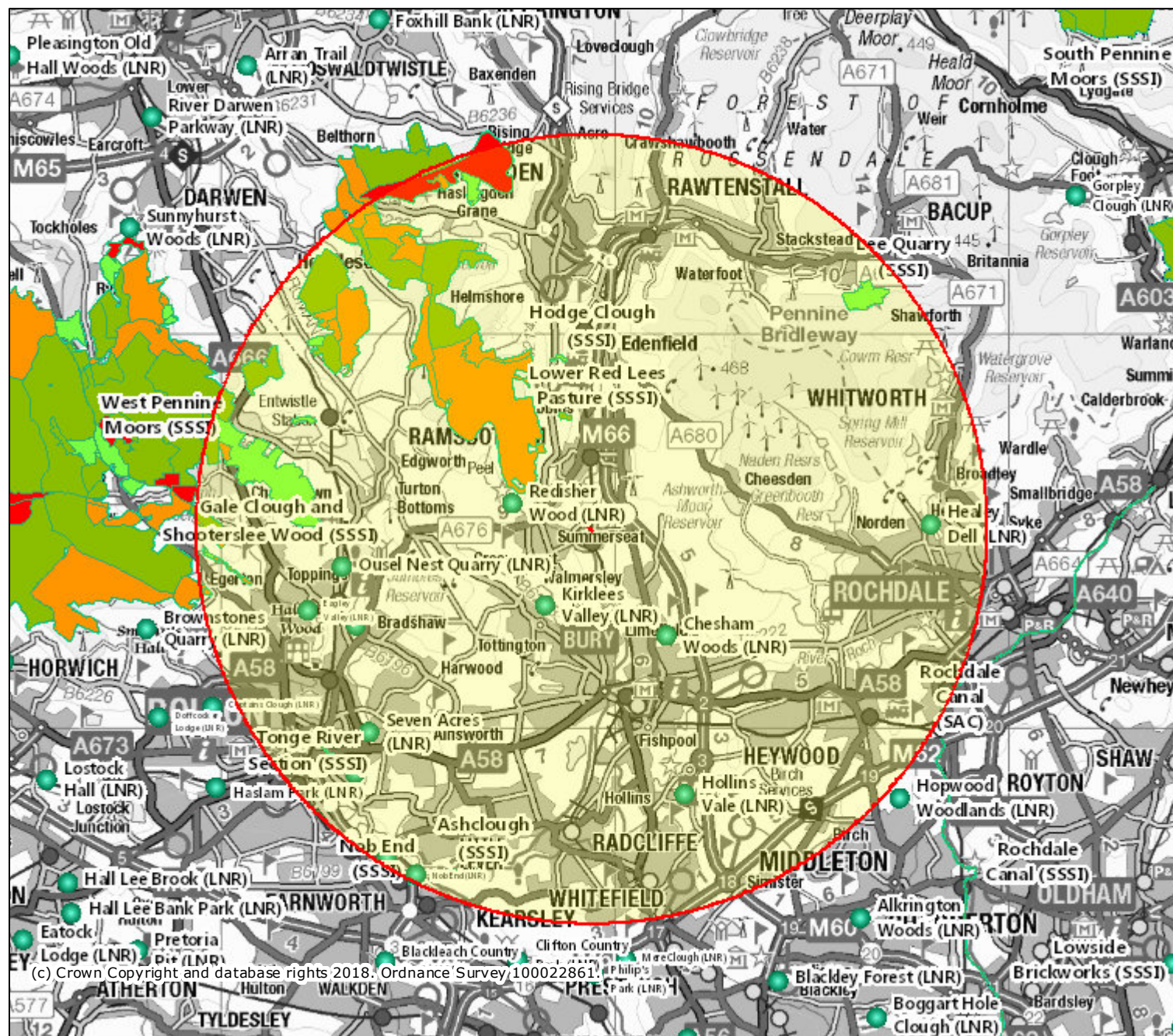
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JNCC (2010). *Handbook for Phase 1 habitat survey: A technique for environmental audit*.



APPENDICES

Appendix 1 – Desk study



Legend

- Local Nature Reserves (England) - points
- National Nature Reserves (England) - points
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)

Sites of Special Scientific Interest Units (England)

- Favourable Condition
- Unfavourable Recovering
- Unfavourable no change
- Unfavourable Declining
- Part Destroyed
- Destroyed
- Not Assessed

Sites of Special Scientific Interest (England)

- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Possible Special Protection Areas (England)

Biosphere Reserves (England)

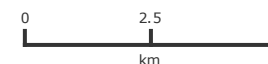
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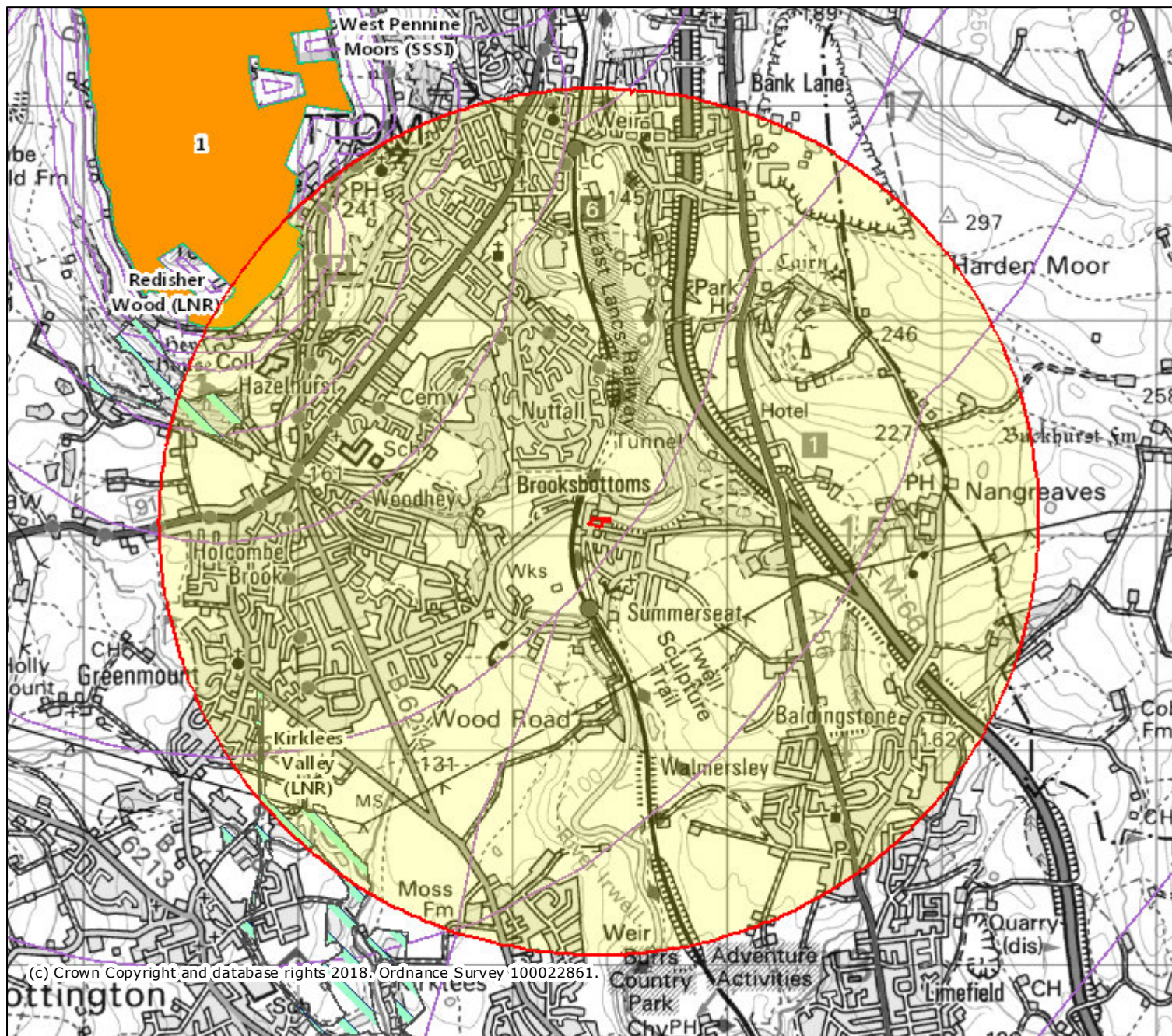
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Legend

- | | | | |
|---|------------------------------------|--|---|
| | Local Nature Reserves (England) | | Sites of Special Scientific Interest (England) |
| | National Nature Reserves (England) | | SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England) |
| | Ramsar Sites (England) | | Special Areas of Conservation (England) |
| | Proposed Ramsar Sites (England) | | Possible Special Areas of Conservation (England) |
| Sites of Special Scientific Interest Units (England) | | | Special Protection Areas (England) |
| | Favourable Condition | | Possible Special Protection Areas (England) |
| | Unfavourable Recovering | | Biosphere Reserves (England) |
| | Unfavourable no change | | |
| | Unfavourable Declining | | |
| | Part Destroyed | | |
| | Destroyed | | |
| | Not Assessed | | |

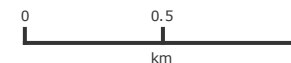
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ymax = 417500



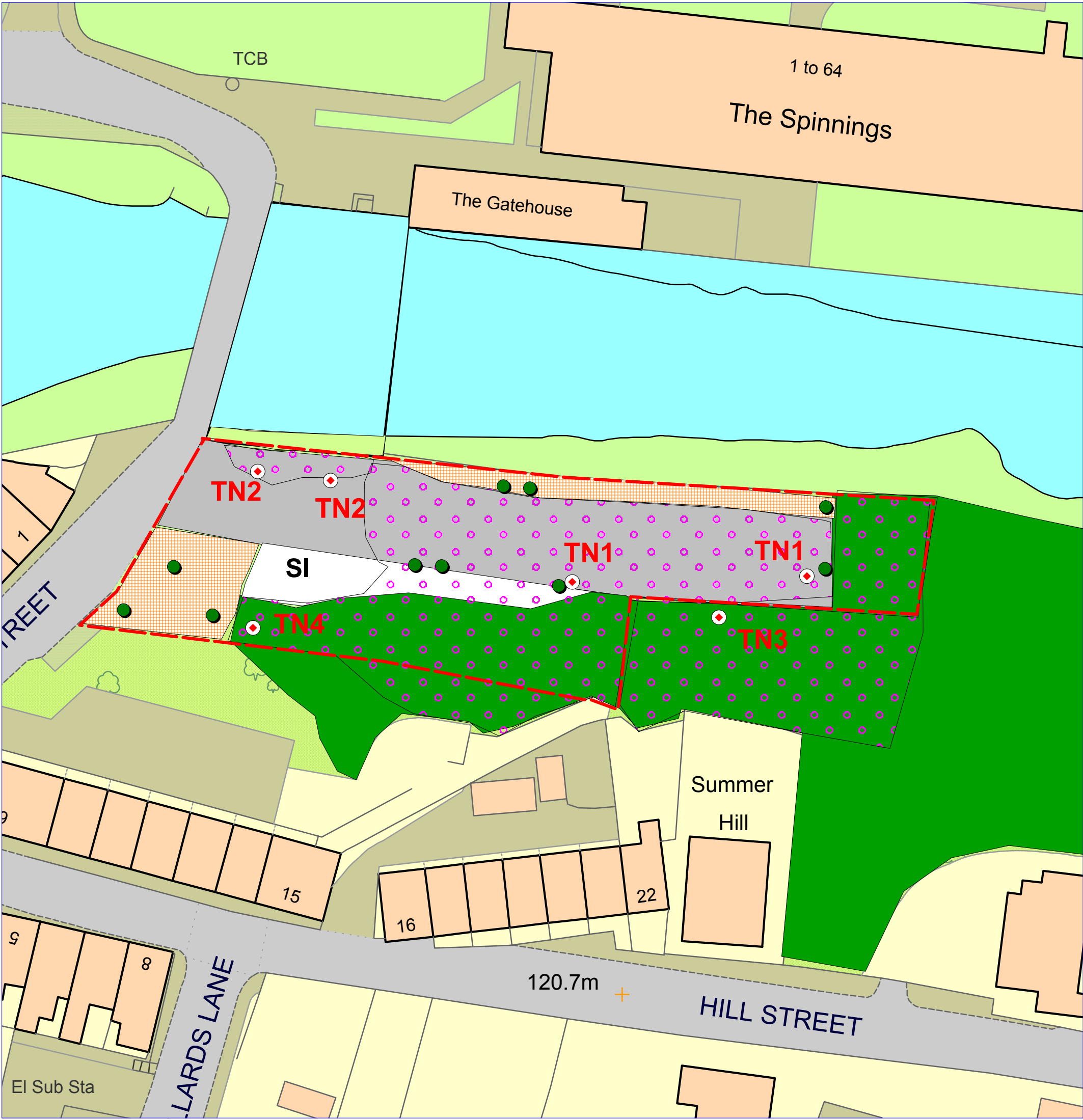
Map produced by MAGIC on 18 September, 2018.

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Appendix 2 – Phase 1 habitat plan

- Target note 1 - Trees assessed as having bat roost potential
- Target note 2 - Japanese knotweed
- Target note 3 - Variegated yellow archangel
- Target note 4 - Rhododendron



PRELIMINARY ECOLOGICAL APPRAISAL

Site: Former Waterside Pub, Bury
NGR: SD 79388 15072

Author: Tom Kenwright
Date: 16/10/2018



KEY:

- | | | |
|--|--------|---------------------------------------|
| | A1.1.1 | Broad-leaved semi-natural woodland |
| | A3.1 | Scattered broad-leaved trees |
| | B6 | Species-poor, semi-improved grassland |
| | G2 | Running water |
| | J1.4 | Introduced shrubs |
| | J5 | Hardstanding |
| | J1.2 | Himalayan balsam |
| | - | Target notes |
| | - | Site boundary |

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Appendix 3 – Aerial photographs



Land at former Waterside Pub,
Bury

Close aerial photograph

— Site boundary





**Land at former Waterside Pub,
Bury**

Wide aerial photograph



Site location





Appendix 4 – Photographs



Photograph 1 – Looking east across the site.



Photograph 2 – Looking west across the site.



Photograph 3 – Looking north towards the area of introduced shrubs on the northern site boundary.



Photograph 4 – Looking towards the north-eastern corner of the site where ephemeral / short perennial vegetation is growing amongst the disturbed ground where the former Waterside pub once stood.



Photograph 5 – Looking east along the River Irwell with the site located to the right of the photo.



Photograph 6 – The area of species-poor semi-improved grassland on site.



Photograph 7 – Example of scattered trees within the southern section of the site.



Photograph 8 – Sense stand of Himalayan balsam growing within the woodland to the south-east of the site.



Photograph 9 – Himalayan balsam is growing through crack in the hard standing on site.



Photograph 10 – Example of Japanese knotweed saplings present on site.



Photograph 11 – Dense stand of variegated yellow archangel present on site.



Photograph 12 – Example of features present within trees with the potential to support roosting bats.



Appendix 5 – Landscape design for birds

SPECIES	F	SIZE				LOCATION			SOIL		BENEFITS TO WILDLIFE
		T	S	M	L	H	W	Su/Sh	MOISTURE		
TREES											
Alder*	D				Y				Su	M	Seed food for birds
Beech*	D			Y	Y	Y			Su	D	Seed food for birds
Birch*	D		Y	Y	Y				Su	D	Seed food for birds
Bird cherry *	D		Y	Y					Su	D	Food for birds, flowers attract insects
Crab apple*	D		Y	Y	Y				Su	D	Food for birds, flowers attract insects
English oak*	D				Y				Su	D	Food for birds, insects and mammals, nesting sites
European larch*	D				Y				Su	M	Seed food for birds
Holly*	E		Y	Y	Y	Y			Su	D	Fruits eaten by birds, food plant of holly blue butterfly
Juniper*	E								Su	D	Shelter and nest sites, fruits eaten by thrushes
Lime*	D				Y	Y			Su	D	Seed food for birds
Rowan*	D			Y	Y				Su	D	Fruits eaten by birds
Scot's pine*	E				Y				Su	D	Seed food for birds
Swedish whitebeam	D		Y	Y	Y				Su	D	Food for birds, flowers attract insects
Wild cherry*	D			Y	Y				Su	D	Food for birds, flowers attract insects
Yew*	E		Y	Y	Y	Y			Su	D	Food for birds, nesting sites
SHRUBS											
Barberry	B	Y	Y	Y	Y	Y			Su	D	Good shelter and nest cover for birds, berries may provide food
Blackthorn*	D			Y	Y	Y			Su	M	Attracts insects, food for birds, nesting sites
Buckthorn*	D			Y	Y	Y			Su/Sh	D	Food plant of brimstone butterfly, fruits eaten by birds
Butterfly bush	E	Y	Y	Y	Y	Y			Su	D	Attracts insects
Californian lilac	E			Y	Y	Y	Y		Su	D	Flowers attractive to various insects
Cotoneaster	B	Y	Y	Y	Y	Y	Y		Su	D	Flowers attractive to insects, fruits eaten by birds
Dogwood*	D			Y	Y	Y			Su	D	Food for birds, winter stem colour
Elder*	D			Y	Y	Y	Y		Su	D	Food for birds
Escallonia	E			Y	Y	Y			Su	M	Flowers attractive to various insects, tolerant of salt - good in coastal areas
Field maple*	D			Y	Y	Y	Y		Su	D	Good source of insect food for birds
Firethorn	E	Y	Y	Y	Y	Y	Y		Su	D	Berries popular with many bird species
Flowering current	D			Y	Y	Y			Su	D	Early flowers attractive to insects
Forsythia	D			Y	Y	Y	Y	Y	Su	D	Early flowers attractive to insects
Garria	E	Y	Y	Y	Y		Y		Su	D	Winter catkins, early cover for nesting birds
Goat willow*	D	Y	Y	Y	Y				Su	D	Catkins attractive to bees, good source of insect food for birds
Gorse*	E			Y	Y	Y			Su	D	Early flowers attractive to insects, good protection for birds
Rhytismatales	E			Y	Y	Y			Su	D	Good cover, tolerant of salt - good in coastal areas
Guelder-rose*	D			Y	Y	Y			Su	D	Food for birds & insects
Hawthorn*	D			Y	Y	Y	Y		Su	D	Flowers attractive to insects, fruits eaten by birds, good shelter and nesting site
Hazel*	D	Y		Y	Y	Y			Su	D	Food for birds, insects and mammals, nesting sites

Laurel-leaved viburnum	E	Y	Y	Y		Su	D	Early flowers good for insects, good cover for birds		
Lavender	E	Y	Y	Y	Y	Su	D	Flowers attract many insects, seeds popular with finches		
Lilac	D	Y	Y	Y		Su	D	Flowers attractive to insects		
Oregon grape	E	Y	Y	Y		Su/Sh	M	Early flowers good for insects		
Pheasant berry	E		Y	Y		Su	D	Berries popular with many bird species		
Privet*	E	Y	Y	Y	Y	Su	D	Flowers attract butterflies, produces berries		
Rose	D	Y	Y	Y	Y	Y	Su	D	Fruits of some varieties attractive to birds	
Rosemary	E	Y	Y	Y	Y	Y	Su	D	Flower attract many insects	
Shad bush	D		Y	Y			Su	M	Flowers attract insects, early forming berries good for thrushes	
Snowberry	D		Y	Y	Y		Su/Sh	D	Flowers attractive to bees, fruits attractive to birds, dense stems provide cover	
Spindle*	D		Y	Y	Y		Su	D	Berries eaten by birds, but poisonous to mammals	
Tamarix	D		Y	Y	Y		Su	D	Flowers attractive to various insects, tolerant of salt - good in coastal areas	
CLIMBERS & RAMBLERS										
Bramble*	D		Y	Y	Y	Y	Y	Su/Sh	D	Food for birds, insects and mammals, nesting sites
Clematis	D	Y	Y	Y	Y			Su	D	Nesting sites
Honeysuckle*	D	Y	Y	Y	Y	Y	Y	Su/Sh	D	Attractive to insects, good nesting site, food for birds
Ivy*	E	Y	Y	Y	Y	Y	Y	Su/Sh	D	Attractive to insects, good nesting site, food for birds
Rose	D	Y	Y	Y	Y	Y	Y	Su	D	Fruits of some varieties attractive to birds
Virginia creeper	D	Y	Y	Y	Y		Y	Sh/Sh	D	Good cover for nests on walls, shelter for insects
Winter jasmin	E	Y	Y	Y	Y	Y	Y	Su	D	Early flowers attractive to insects
Wisteria	D	Y	Y	Y	Y		Y	Su	D	Attractive to insects, good nesting site

KEY			
*	Native (NB: some varieties are cultivars or non-native)	Location	H = may be used as a hedge plant
F	D = Deciduous		W = may be used as a wall shrub
Foliage type	E = Evergreen		Su = Sunny borders
	B = Both		Sh = Shade tolerant
Size	T = Terraces & balconies		Su/Sh = Grows in partial shade
Suitable for garden sizes	S = Small garden (<= 6m x 4m)	Soil moisture	D = Well drained
	M = Medium gardens (<= 12m x 6m)		M = Moist
	L = Large gardens (> 12m x 6m)		W = Wet soil

SPECIES	PLANT TYPE					LOCATION	SOIL	ATTRACTIVE TO			
	P	B	A	Ar	H	Su/Sh		MOISTURE	Be	Bu	Mo
FLOWERS											
Alyssum	Y		Y			Su	D	Y	Y	Y	Y
Angelica*	Y					Su	D				Y
Annual coreopsis			Y			Su	D	Y	Y		
Annual scabious			Y			Su	D	Y	Y		Y
Bee sage			Y			Su	D	Y			
Borage			Y			Su	D	Y			
Candytuft			Y	Y		Su	D	Y	Y		Y
Catmint	Y					Su	D	Y		Y	
Chives	Y				Y	Su	D	Y	Y		
Clover	Y					Su	D	Y		Y	
Comfrey*	Y					Su	D	Y		Y	
Common poppy*			Y	Y		Su	D	Y	Y		
Corn chamomile*			Y	Y		Su	D	Y			Y
Corn marigold*			Y	Y		Su/Sh	D	Y			Y
Corn spurrey*			Y	Y		Su/Sh	D				
Corncockle*			Y	Y		Su	D	Y			
Cornflower*	Y	Y	Y	Y		Su	D	Y	Y	Y	Y
Dahlias			Y			Su	D	Y	Y		
Deadnettle*	Y			Y		Su/Sh	D	Y			
Devil's-bit-scabious	Y					Su/Sh	M	Y	Y		Y
Evening primrose		Y				Su	D			Y	
Fennel	Y				Y	Su	D				Y
Field scabious*	Y					Su	D		Y	Y	Y
Field woundwort*	Y			Y		Su	D	Y		Y	
Foxglove*		Y				Su	D	Y		Y	
Foxtail millet	Y					Su	D				
French marigold	Y		Y			Su	M	Y	Y		Y
Goldenrod*	Y					Su	D	Y		Y	Y
Greater knapweed*	Y					Su/Sh	D	Y	Y	Y	Y
Hemp agrimony*	Y					Su/Sh	D		Y	Y	Y
Honesty		Y				Su/Sh	D		Y		Y
Larkspur			Y	Y		Su	D	Y	Y		
Lesser snapdragon*			Y	Y		Su	D	Y			
Lungwort	Y					Sh	D	Y			
Meadow clary*	Y					Su	D	Y		Y	
Mexican hat			Y			Su	D	Y	Y		
Michaelmas daisy	Y					Su	D		Y	Y	Y
Nasturtium			Y		Y	Su	D	Y	Y		
Pinks	Y					Su	D			Y	
Red valerian	Y					Su	D			Y	Y
Round-leaved fluelin*			Y	Y		Su	D	Y			
Sage	Y				Y	Su	D	Y		Y	
Sea holly	Y					Su	D	Y			
Sedum	Y					Su	D	Y	Y		Y
Small scabious*	Y					Su	D		Y	Y	Y
Soapwort	Y					Su	D			Y	
Spiked speedwell*	Y					Su	D	Y		Y	

Sunflower	Y	Y	Su	D	Y	Y		Y
Sweet william		Y	Su	D	Y	Y	Y	
Teasel*		Y	Su	D	Y	Y	Y	
Thistle*		Y	Su	D	Y		Y	Y
Tobacco plant			Y	Su	D	Y	Y	Y
Viper's bugloss*		Y	Y	Su	D	Y		
Whorled clary*	Y			Su	D	Y		Y
Wild carrot*		Y		Su	D		Y	Y
Wild clary*	Y			Su	D	Y		Y
Wild marjoram*	Y		Y	Su	D		Y	Y

KEY	
*	Native
Plant type	P = Herbaceous perennial B = Biennial A = Annual Ar = Arable flower H = Herb
Location	Su = Sunny borders Sh = Shade tolerant Su/Sh = Grows in partial shade
Soil moisture	D = Dry soil M = Moist soil W = Wet soil
Attractive to	Be = Bees Bu = Butterflies Mo = Moths Ho = Hoverflies



Appendix 6 – Planning and statutory context

Ecological assessments

Ecological assessments play an important part within the planning context; they include an initial assessment which highlights any specific interests of a site. From the initial site assessment, the surveyor assesses the suitability of habitats within the site to support protected species and makes recommendations for further survey works if required. The following paragraphs provide a brief interpretation of legislative protection in relation to the following species and habitats:

Amphibians

- Great crested newts
- Other amphibians

Reptiles

Badgers

Hazel dormouse

Bats

Birds

Trees

Hedgerows

Invasive plant species

Otters

Water voles

White-clawed crayfish

Planning policy

Amphibians

Great crested newts

Great crested newts (GCN) *Triturus cristatus* and their habitat (aquatic and terrestrial) are afforded full protection by the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture GCN
- Deliberately, intentionally or recklessly disturb GCN in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of GCN
- Damage or destroy breeding sites or resting places of GCN
- Intentionally or recklessly disturb sheltering GCN, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead GCN, any part of GCN or anything derived from GCN

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

GCN are also protected by the Protection of Animals Act 1911, which prohibits cruelty and mistreatment. Releasing a GCN in such a way as to cause undue suffering may be an offence under the Abandonment of Animals Act 1960.

In addition to the above, there are various statutory provisions relating to the transport of animals, designed to ensure their welfare. GCN are also listed under Section 41 of the NERC Act (see bats section for further details).

It is important to identify the presence of GCN individuals and also to identify suitable habitat on sites so that legal obligations regarding this species can be observed. If a survey identifies the presence of GCN on the site, an assessment of the population size class is required. This can then inform a mitigation scheme, which would need to be developed in liaison with the local Natural England team, and which minimises direct threats to newts and compensates for any loss of habitat. A licence issued by Natural England is required for the legal implementation of a mitigation scheme.

A Natural England mitigation licence application requires a Mitigation Method Statement and a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the

proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

Other amphibians

More common British amphibians, such as common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Triturus vulgaris* and palmate newt *Triturus helveticus* are protected only by Section 9(5) of the Wildlife and Countryside Act 1981 (as amended). This section prohibits sale, barter, exchange, transporting for sale and advertising to sell or to buy.

The above named species are also listed as UK Species of Conservation Concern. Due to general declines in most British amphibian species in recent years, many local authorities require amphibian surveys as a planning condition, or as part of environmental information submitted as part of a planning application, even where the presence of GCN is ruled out.

Natterjack toad *Bufo calamita* and pool frog *Pelophylax lessonae* are also offered the same level of protection as GCN, through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017.

Natterjack toad, common toad and pool frog are also listed under Section 41 of the NERC Act (see bats section for further details).

Water bodies that support all five (more common) species of British amphibians in high numbers, may be afforded protection in local plans, as Sites of Importance for Nature Conservation (SINC), or a similar equivalent, for sites of local importance. A site may require statutory protection as a Site of Special Scientific Interest (SSSI).

Reptiles

Common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix natrix* and adder *Vipera berus* are protected under the Wildlife and Countryside Act 1981 (as amended). They are listed as a Schedule 5 species therefore part of Section 9(1) and section 9(5) apply. The Countryside and Rights of Way Act 2000 also strengthens their protection. It is offence to:

- Intentionally or recklessly kill or injure any of the species listed above
- Sell, offer, advertise or transport for sale a live or dead animal of the species listed above

If a proposed development is likely to have an impact on these reptiles the local statutory nature conservation organisation must be consulted.

Sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* receive full protection under the Wildlife and Countryside Act 1981 (as amended) and Conservation of Habitats and Species Regulations 2017. Read together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture any sand lizards or smooth snakes
- Deliberately, intentionally or recklessly disturb sand lizards or smooth snakes in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Deliberately, intentionally or recklessly take or destroy the eggs of such an animal
- Damage or destroy breeding sites or resting places of such animals
- Intentionally or recklessly disturb sheltering sand lizards or smooth snakes, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead sand lizards or smooth snakes, any part of such an animal or anything derived from such an animal

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

All reptile species are also listed under Section 41 of the NERC Act (see bats section for further details).

Badgers

European badgers *Meles meles* and their habitat are protected under The Protection of Badgers Act 1992 and are also included on Schedule 6 of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention. The legislation affords badgers protection against deliberate harm or injury making it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger (or attempt to do so)
- To interfere with a sett by damaging or destroying it
- To obstruct access to, or entrance of, a badger sett
- To disturb a badger whilst it is occupying a sett

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Works that disturb badgers whilst they are occupying a sett are illegal without a licence. Disturbance can occur even without direct interference or damage to the sett in question. In general, the following activities are likely to require a licence:

- Use of heavy machinery or significant earth moving within 30m of a sett
- Use of lighter machinery (usually any wheeled vehicles) within 20m of a sett
- Any digging, chain saw use or scrub clearance within 10m of a sett

Hazel dormouse

Hazel dormice *Muscardinus avellanarius* are offered full protection through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture dormice
- Deliberately, intentionally or recklessly disturb dormice in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to hibernate or migrate
 - their local distribution or abundance
- Damage or destroy breeding sites or resting places of dormice
- Intentionally or recklessly disturb sheltering dormice, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead dormouse, any part of a dormouse or anything derived from a dormouse

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Dormice are also listed under Section 41 of the NERC Act (see bats section for further details).

Bats

In the United Kingdom, all species of bat and their roosts are afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (known as the "Habitats Regulations"). The Wildlife and Countryside Act is the domestic implementation of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention) and was amended by the Countryside and Rights of Way Act 2000. This makes it an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture a bat

- Deliberately, intentionally or recklessly disturb a bat while it is occupying a structure or place that it uses for shelter or protection
- Deliberately, intentionally or recklessly damage, destroy or obstruct access to any place that a bat uses for shelter or protection (even if the bat is not present at the time)
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead bat, any part of a bat or anything derived from a bat

Under UK law, a bat roost is *any structure or place which any wild [bat] ... uses for shelter or protection*. As bats often reuse the same roosts, legal opinion is that a roost is protected whether or not the bats are present at the time of the activity taking place.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

If an activity is likely to result in any of the above offences, a licence can be applied for to derogate from the protection afforded. These licences must provide appropriate mitigation and are issued by Natural England.

A Natural England mitigation licence application requires a Mitigation Method Statement and, in many cases, a Reasoned Statement of Application. The Mitigation Method Statement contains details of the proposed mitigation works. The Reasoned Statement needs to provide a rational and reasoned justification as to why the proposed development meets the requirements of the Conservation (National Habitats & c.) regulations 1994, namely Regulations 44(2)(e), (f) or (g), and 44(3)(a).

The Natural Environment and Rural Communities (NERC) Act 2006 lists the following bat species as species of principle importance under Section 41:

- Barbastelle *Barbastella barbastellus*
- Bechstein's bat *Myotis bechsteinii*
- Noctule *Nyctalus noctula*
- Soprano Pipistrelle *Pipistrellus pygmaeus*
- Brown Long-eared bat *Plecotus auritus*
- Greater Horseshoe *Rhinolophus ferrumequinum*
- Lesser Horseshoe *Rhinolophus hipposideros*

Section 40 requires every public body in the exercising of its functions 'have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity' (all biodiversity and not just section 41 species and habitats); therefore making these bats a material consideration in the planning process and requiring a detailed ecological bat survey before planning permission can be granted.

Birds

All wild birds, their nests and young are protected throughout England and Wales by the Wildlife & Countryside Act 1981 (as amended). It is illegal to kill, injure or take any wild bird, or damage or destroy the nest or eggs of breeding birds. The legislation applies to all bird species, common and rare.

In addition to the protection afforded to all wild birds, more vulnerable species listed on Schedule 1 of the Act receive enhanced protection when breeding. Schedule 1 species, including their dependent young, are protected from intentional or reckless disturbance whilst at or near the nest, in addition to the protection afforded the more common species.

The NERC Act offers further protection to the nests of some species that regularly re-use their nests, even when the nests are not in use.

The leading governmental and non-governmental conservation organisations in the UK have reviewed the population status' of 244 UK bird species. "Birds of Conservation Concern 4: the Red List for Birds" is the most recent publication summarising their findings. Three lists, Red, Amber and Green, have been produced based on the most up-to-date evidence available and criteria include conservation status at global and European levels and, within the UK: historical decline, trends in population and range, rarity,

localised distribution and international importance. These lists are a valuable resource when considering conservation priorities.

Trees

Trees may be protected on an individual or group level through a Tree Preservation Order (TPO). In order to carry out works to trees with a TPO, prior written consent must be obtained from the Local Planning Authority. Trees may also be protected through a condition of planning consent or designated conservation areas.

Hedgerows

The Hedgerow Regulations are made under Section 97 of the Environment Act 1995 and came into operation on 1st of June 1997. They aim to protect important hedgerows in the countryside by controlling their removal through a system of notification to the Local Planning Authority.

A hedgerow can only be considered for classification as “important” if it, or the hedgerow of which the section belongs to is over 20m in length (or which meets a hedgerow at either end) and has existed for 30 years or more.

Invasive plant species

A number of invasive, non-native plant species are listed under Schedule 9 (Part II) of the Wildlife and Countryside Act 1981 (as amended). The most commonly encountered listed species in ecological surveys are Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera*. Section 14(2) of this Act makes it an offence to *plant or otherwise cause to grow in the wild* any plant listed on Schedule 9 (Part II). These provisions are necessary to prevent the establishment of non-native species which may be detrimental to our native wildlife.

Soil or plant material contaminated with non-native and invasive plants can cause ecological damage and may be classified as controlled waste. It is an offence to keep, treat or dispose of waste that could harm the environment or human health. If there is any doubt, contact the local authority or Environment Agency.

Otters

European otter *Lutra lutra* are offered full protection through the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. If both national and international legislation are taken together, it is an offence to:

- Deliberately, intentionally or recklessly kill, injure or capture otters
- Deliberately, intentionally or recklessly disturb otters in such a way to be likely to significantly affect:
 - their ability to survive, breed, reproduce, rear or nurture their young
 - their ability to migrate
 - their local distribution or abundance
- Damage or destroy breeding sites or resting places of otters
- Intentionally or recklessly disturb sheltering otters, or obstruct access to their resting place
- Keep, transport, sell or exchange, or offer for sale or exchange any live or dead otter, any part of an otter or anything derived from otter

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Otters are also listed under Section 41 of the NERC Act (see bats section for further details).

Water voles

Water voles *Arvicola amphibius* are protected by the provisions of Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- Intentionally kill, injure or take water vole
- Possess or control live or dead water vole or any part of a water vole
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which a water vole uses for shelter or protection, or disturb water vole using such a place
- Sell, offer, advertise or transport live or dead water voles for sale

Licences are available from Natural England to allow activities that would otherwise be an offence, including:

- Scientific or educational purposes
- For the purposes of ringing or marking
- Conserving wild animals or introducing them into particular areas
- Preserving public health or public safety
- Preventing the spread of disease
- Preventing serious damage to any form of property or to fisheries

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Water voles are also listed under Section 41 of the NERC Act (see bats section for further details).

White-clawed crayfish

White-clawed crayfish *Austropotamobius pallipes* are protected under the Wildlife and Countryside Act 1981 (as amended). They are listed as a Schedule 5 species therefore part of Section 9(1) and section 9(5) apply. The Countryside and Rights of Way Act 2000 also strengthens their protection. It is an offence to:

- Intentionally or recklessly kill or injure white-clawed crayfish
- Sell, offer, advertise or transport for sale a live or dead white-clawed crayfish

If a proposed development is likely to have an impact on white-clawed crayfish then the local statutory nature conservation organisation must be consulted.

Penalties for offences include fines of up to £5000, plus up to six months imprisonment, for each offence committed.

Their inclusion on the EC Habitats Directive allows areas to be designated as Special Areas of Conservation (SAC) for the presence of white-clawed crayfish. Such a designation brings legal protection under the Conservation of Habitats Regulations 2017, this includes how the site is managed and what development can occur on and in proximity to these sites.

White-clawed crayfish are also listed under Section 41 of the NERC Act (see bats section for further details).

Planning policy

National Planning Guidance is issued in the form of the National Planning Policy Framework 2018 (NPPF). The most relevant section is 15: Conserving and enhancing the natural environment.

Key relevant principles stated in 15: Conserving and enhancing the natural environment are;

170. Planning policies 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);
- b) 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;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

174. 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 biodiversity⁵⁶; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- b) 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.

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

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.