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PRELIMINARY ECOLOGICAL APPRAISAL

At

Land at former Waterside Pub

Kay Street
Summerseat
Bury
Greater Manchester
BL9 5PE

NGR: SD 79379 15079

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A handwritten signature in black ink, reading 'K James', is positioned below the 'Approved by:' line.

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EXECUTIVE SUMMARY

United Environmental Services Ltd (UES) was commissioned to carry out a baseline ecological survey of a parcel of land at the former Waterside Pub in Bury, Greater Manchester in 2018. The applicant is seeking to reapply for planning consent, and as such, an updated preliminary ecological appraisal (PEA) survey, including desk study, was undertaken on 20th February 2023, 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 five town houses 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. There is also an area of woodland within the eastern section of the site, a thin strip of which runs along the southern site boundary. Other habitats present on site include scattered trees, introduced shrub and tall ruderal vegetation.

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** – a ground level tree assessment (GLTA) should be undertaken of any trees that are due to adversely impacted by the development (felling, arboricultural works or significant level of disturbance), to assess their potential to support roosting bats. This ground level assessment can be undertaken any time of year. If any trees due to be adversely impacted are found to have the potential to support roosting bats, further aerial tree inspections should be conducted (any time of year). If any potential roosting features (PRFs) are found to still be suitable following the inspections, further bat presence / absence surveys or further aerial inspections may be required during the bat survey season (May to September inclusive). Some of the trees on site were subject to a GLTA as part of this walkover survey and an aerial tree inspection of T8 (numbered as per DEP's Arboricultural Report) is required due to the presence of potential roosting features. T11 was also found to have PRFs but it is not due to be removed as part of the proposed development.
- **Breeding birds** – vegetation clearance, tree felling and arboricultural works are to take place outside of the breeding bird season, which runs from March to August inclusive. If this is 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 has been prepared (UES02435/03), which details how Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera*, variegated yellow archangel *Lamium galeobdolon* subsp. *argentatum*, rhododendron *Rhododendron ponticum* and three-cornered garlic *Allium triquetrum* are to be managed and eradicated on site. This should be adhered to in full.
- **Otters** – any external lighting should be directed away from the river to ensure that there is minimal disturbance to any otters *Lutra lutra* 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 (RPAs). The woodland within the eastern section 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 was originally 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.

An updated walkover survey was undertaken by Alasdair Grubb BSc ACIEEM, UES Senior Ecologist, in February 2023. Alasdair holds a level 5 BSBI FISC, which certifies him as competent to undertake phase 1 habitat and national vegetation classification (NVC) surveys.

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 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 initially commissioned in June 2018 to conduct a PEA of the proposed development site, and subsequently undertook an updated survey in February 2023. 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 five town houses 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 initial ecological walkover survey was carried by Tom Kenwright on 2nd July 2018, and an updated walkover survey was undertaken by Alasdair Grubb on 20th February 2023. The purpose of the surveys 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, 2017).

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 recognised 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

The updated walkover survey was undertaken in February, at a time when many plants are not readily identifiable. However, sufficient identification was possible to undertake a robust assessment of the habitats present. Therefore, this is not considered to be a limitation to 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 three statutorily protected sites within 2km of site:

- Redisher Wood LNR¹ (approximately 1640m north-west of site)
The designation covers c.13ha 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 1790m north-west of site)
The West Pennine Moors SSSI supports an extensive mosaic (c.7600ha) of upland and upland-fringe habitats, which are of national importance.
- Kirklees Valley LNR (approximately 1730m south-west of site)
The designation covers 36ha of semi-natural broad-leaved woodland scattered with ponds, some areas of grassland and a large area of heathland.

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 a further fifteen statutorily protected sites (designated for ecological reasons) within 2 – 10km of site:

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

¹ LNR – Local nature reserve

² SSSI – Site of special scientific interest

³ SAC – Special area of conservation

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
- C3.1 Tall ruderal
- G2 Running water
- J1.3 Ephemeral / short perennial
- J1.4 Introduced shrub
- J5 Hardstanding

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

The eastern section of the site contains an area of woodland that runs along the southern edge of the River Irwell. A thin strip of this woodland also 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* and stinging nettle *Urtica dioica*.

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 low canopy cover. Variegated yellow archangel (See Appendix 2 - Target note 5, Photo 9) was recorded within this section of woodland.

A large area of Himalayan balsam is present within the offsite area of woodland (Target Note 2 and Appendix 4, Photo 6); it is likely that Himalayan balsam is present elsewhere on site, but due to the time of year the walkover survey was conducted, the extent of this species could not be fully mapped. Also present within the off-site woodland is a large area of three-cornered garlic *Allium triquetrum* (Target note 6, Photo 10).

3.2.2 A3 Scattered trees

The majority of the trees on site lie within the woodland in the eastern section of 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 separately. 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 C3.1 Tall ruderal vegetation

There is a small section of tall ruderal vegetation along the southern site boundary which has succeeded from an area formerly identified as species-poor grassland. This habitat has been classified as tall ruderal vegetation due to the higher incidence of ruderal species such as stinging nettle *Urtica dioica*, broad-leaved dock *Rumex obtusifolius*, great willowherb *Epilobium hirsutum* and creeping thistle *Cirsium arvense*. However, some rank grass species are still present such as Yorkshire fog *Holcus lanatus*, creeping bent *Agrostis stolonifera*, cock's foot *Dactylis glomerata* and false oat-grass *Arrhenatherum elatius*.

A number of fallen, dead trees have been piled up in the area between the tall ruderal habitat and the adjacent woodland (Target note 4, Photo 8).

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. The wall is in poor condition in several parts along the northern site boundary.

Himalayan balsam and Japanese knotweed are present on an exposed gravel bank adjacent to the northern site boundary (Target notes 2 and 1 respectively), and a large patch of Japanese knotweed is present on the opposite (northern) river bank.

3.2.5 J1.3 Ephemeral / short perennial

The majority of the site comprises hardstanding, a small area of which has become totally colonised by short perennial / ephemeral vegetation. This vegetation is also spreading out across the rest of the hardstanding too, particularly growing in damaged areas. Species present include common ragwort *Jacobaea vulgaris*, greater plantain *Plantago major*, willowherb sp. *Epilobium* sp., 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*, herb robert, butterfly bush *Buddleja* sp., ivy-leaved toadflax *Cymbalaria muralis*, false oat-grass, creeping bent, stinging nettle, broad-leaved dock, field horsetail *Equisetum arvense*, perennial ryegrass *Lolium perenne*, soft rush *Juncus effusus*, wood avens, rosebay willowherb *Chamaenerion angustifolium* and alder *Alnus glutinosa* saplings.

3.2.6 J1.4 Introduced shrub

The site contains two areas of introduced shrub, which have been unmanaged for some time and become overgrown. Species present include cherry laurel *Prunus laurocerasus*, grey willow *Salix cinerea*, bramble *Rubus fruticosus* agg, rhododendron *Rhododendron ponticum* (Target note 3, Photo 7), 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 3.2.5 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 are two mapped ponds within 250m of the proposed development site, the first of which is located approximately 51m 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.

The second mapped pond is located approximately 244m southwest of the site. The pond lies within Summerseat Nature Reserve. The Wildlife Trust for Lancashire, Manchester and North Merseyside state that smooth newt *Lissotriton vulgaris* and palmate newt *Lissotriton helveticus* are present within the nature reserve. The intervening residential housing is likely to act as a barrier to movement and it is considered unlikely that newts would move nearly 250m away from good quality habitat surrounding the pond to lower quality habitat on site.

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 for amphibians. The areas of tall ruderal vegetation and woodland provide some sheltered commuting and foraging opportunities, whilst there are also some hibernation opportunities in the exposed tree root systems in the woodland and the piled dead-wood in the southern section of the site (Target note 4).

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 to the east of site. 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 majority of site is broadly unsuitable for use by badgers as it is composed of hardstanding. However, there are foraging and sett building opportunities within the woodland to the east of site.

3.3.4 Bats

There are no buildings on site which could be used by roosting bats.

All individual trees within the development boundary were subject to a ground level tree inspection for bat roost potential and two trees were identified with potential roosting features for bats (Target Note 7); one sycamore (assumed to be T11) and one London plane (T8). Both trees feature stem cavities at a height of 3-4m, which could not be inspected from ground level.

The trees within the woodland in the eastern section of the site were not subjected to a full ground-level assessment with respect to bats.

The habitats surrounding the site offer high value foraging and commuting opportunities for bats; the river corridor and broad-leaved woodland will offer an abundant supply of invertebrate prey and dark commuting corridors. A high number of alternative roosting opportunities will be present in the local area.

3.3.5 Hazel dormouse

The habitats on site are relatively unsuitable for hazel dormice *Muscardinus avellanarius*. The woodland provides some suitable habitat, however, it 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, the following species were recorded whilst on site: woodpigeon *Columba palumbus*, blue tit *Cyanistes caeruleus*, robin *Erithacus rubecula*, wren *Troglodytes troglodytes*, dunnoek *Prunella modularis* and blackbird *Turdus merula*. Additionally, dipper *Cinclus cinclus* and mallard *Anas platyrhynchos* were observed using the adjacent River Irwell.

Areas of woodland, scattered trees and introduced shrub 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

A linear area of Japanese knotweed is present immediately adjacent to the northern site boundary, on an exposed gravel bank within the River Irwell (Target note 1). There is also a large stand on the opposite (northern) river bank. During the initial site walk over, Japanese knotweed was identified growing on site. This appears to have been subjected to control, as none was identified on site during the 2023 walkover survey.

A large area of Himalayan balsam is present within the adjacent woodland and on the river gravel bank (Target note 2). None was identified within the red-line boundary, however this species can be overlooked during the winter unless present in large abundance.

A single stand of rhododendron was observed within the area of introduced shrub on the southern boundary of the site (Target note 3).

A large stand of variegated yellow archangel is present within the woodland that runs along the southern site boundary (Target note 5).

An area of three-cornered garlic is also present in the offsite woodland (Target note 6).

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 1640m 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.

The recommendations within DEP's Arboricultural Report (June 2023) should be implemented on site, including establishing and implementing root protection areas 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 an area of woodland within the eastern section of the site.

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

Some of the trees on site were subject to a GLTA as part of this walkover survey and T8 and T11 were assessed as having potential to support roosting bats. T8 is due to be removed and T11 is due to be retained as part of the proposed development. The trees within the woodland have not yet been assessed for potential to support roosting bats.

Construction impacts

If bats are roosting within the trees during site clearance, 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

If any of the trees on site or adjacent to the site will be affected by the proposed development, then a ground level tree assessment will be required to determine the suitability of the trees to support roosting bats. This ground level assessment can be undertaken any time of year. If any trees due to be adversely impacted are found to have the potential to support roosting bats, further aerial tree inspections should be conducted (any time of year). If any potential roosting features are found to still be suitable following the inspections, further bat presence / absence surveys or further aerial inspections may be required during the bat survey season (May to September inclusive).

Some of the trees on site were subject to a GLTA as part of this walkover survey and an aerial tree inspection of T8 is required due to the presence of potential roosting features. T11 was also found to have PRFs but it is not due to be removed as part of the proposed development.

Compensation / enhancement

The provision of bat boxes as part of the development proposals would increase the roosting opportunities for bats on site but would also increase the ecological value of the site. Bat boxes that could be used on site include:

- Schwegler 1FF box (affixed to trees or buildings)
- Schwegler 2F box (affixed to trees or buildings)
- Schwegler 1FW hibernation box (affixed to trees)
- Schwegler 2FR bat tube (installed in connected pairs or threes into the external walls of buildings)

Bat boxes affixed to trees should be fitted at a height of between 5 and 6m metres on a southerly aspect.

The bat boxes affixed to, or installed into the external walls of buildings should be installed just below the eaves / roof height. No detailed lighting proposals are as yet available to UES, however care must be taken when installing any new lighting to ensure that light spillage onto the bat boxes is minimised. This may require the use of cowling or relocation of the bat box or lighting.



It should be noted that once bat inhabits a bat box, they may only be disturbed by a licensed bat worker.

Mitigation and compensation measures should be reassessed following the further surveys.

Operational impacts

Any external lighting should be avoided and directed 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.

4.2.2 Birds

There are a number of habitats, such as woodland, introduced shrub, scattered 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

Additionally, due to the observation of dippers on the adjacent river, it is recommended that 'Vivara-Pro Woodstone Dipper and Grey Wagtail' nest boxes are affixed to the river wall to provide nesting opportunities for these species.

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

Stands of Japanese knotweed, Himalayan balsam, rhododendron, variegated yellow archangel and three-cornered garlic were identified on or within the immediate vicinity of the site during the walkover survey. All of the above species, except Himalayan balsam, are listed under Schedule 9 of the Wildlife and Countryside Act 1981; Himalayan balsam is listed under the Invasive Species Act (Enforcement and Permitting) Order, 2019. 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 has already been produced for the site (report reference UES02435/03), which details the methods and timings of the eradication. This should be adhered to in full. It should be noted that updated site visits may be required to accurately map the invasive species and inform updated control measures.

It is essential that a competent and qualified person carries out any herbicide treatment.



Operational impacts

If the invasive species method statement is adhered to 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 directed 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

External lighting has the potential to cause disturbance to otters and other wildlife using the river corridor at night.

Any external lighting should be directed away from the river to ensure that there is minimal disturbance to any wildlife using the river at night.



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 contains 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 shrub and tall ruderal vegetation.

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 (2017). *Guidelines for Preliminary Ecological Appraisal* (Second Edition).

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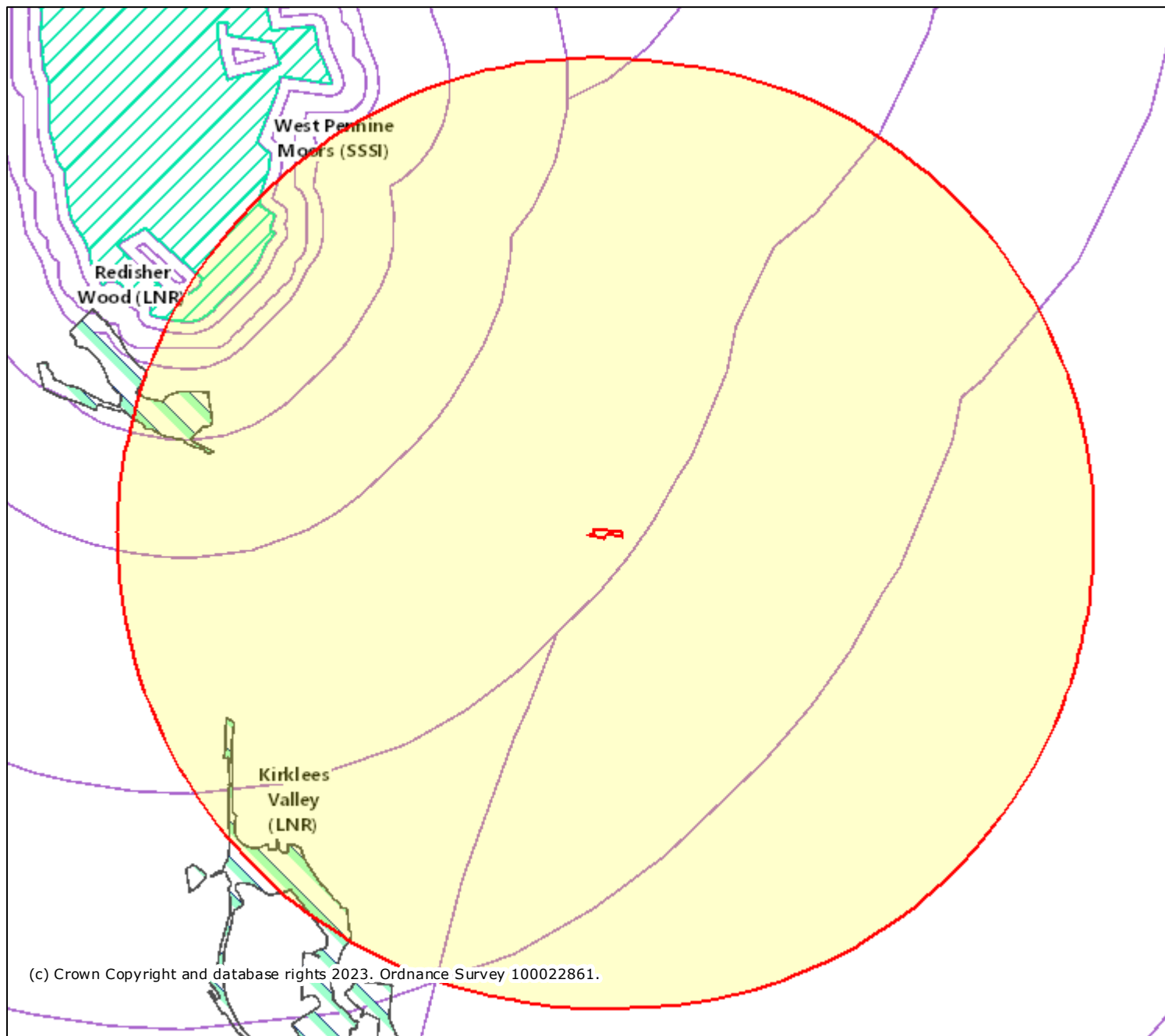
JNCC (2010). *Handbook for Phase 1 habitat survey: A technique for environmental audit*.

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APPENDICES

Appendix 1 – Desk study



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Legend

-  Local Nature Reserves (England)
-  National Nature Reserves (England)
-  Ramsar Sites (England)
-  Sites of Special Scientific Interest (England)
- SSSI Impact Risk Zones - to assess planning
-  applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
-  Special Areas of Conservation (England)
-  Special Protection Areas (England)
-  Biosphere Reserves (England)

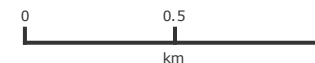
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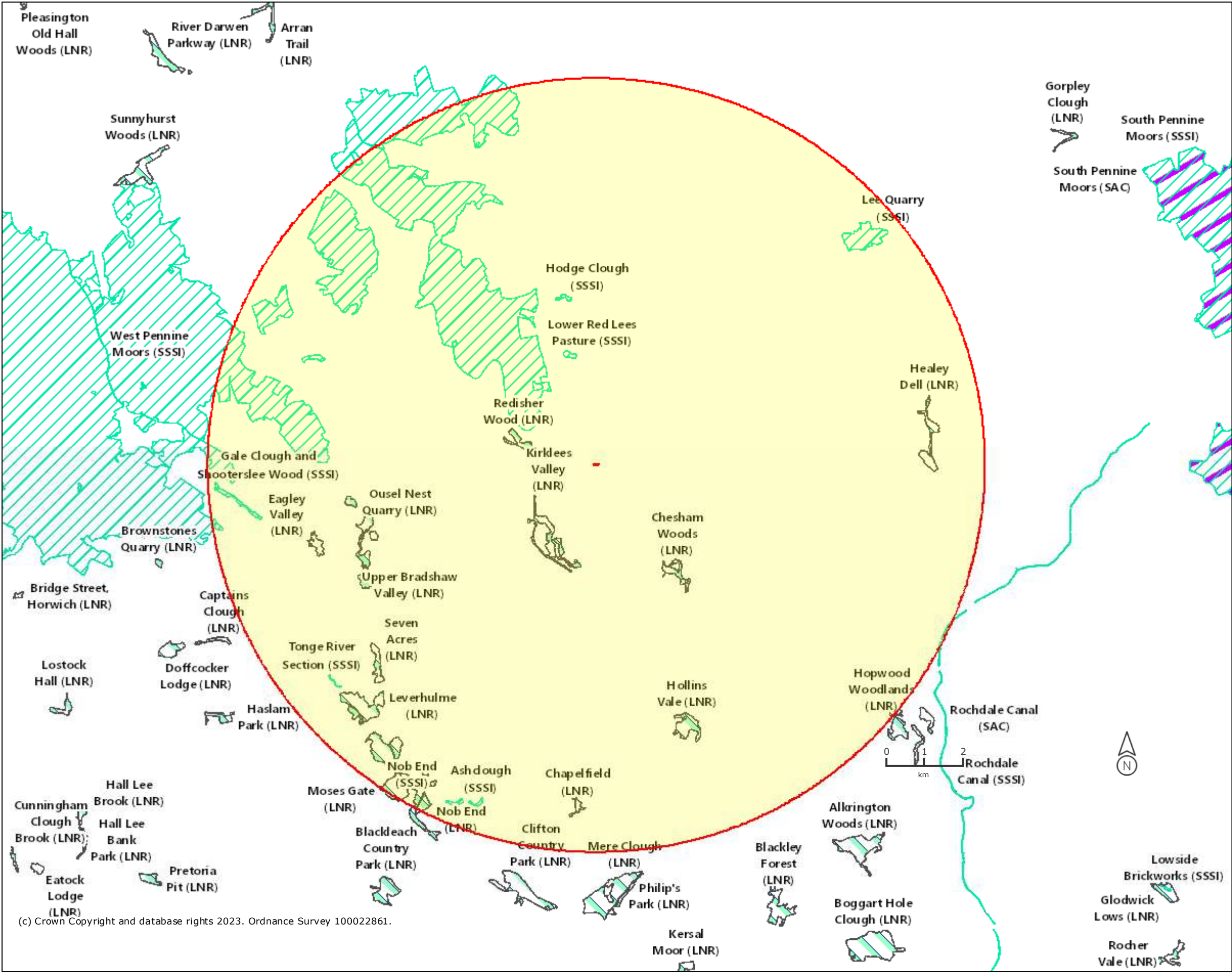
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ymax = 417600



Map produced by MAGiC on 9 August, 2023.

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Legend

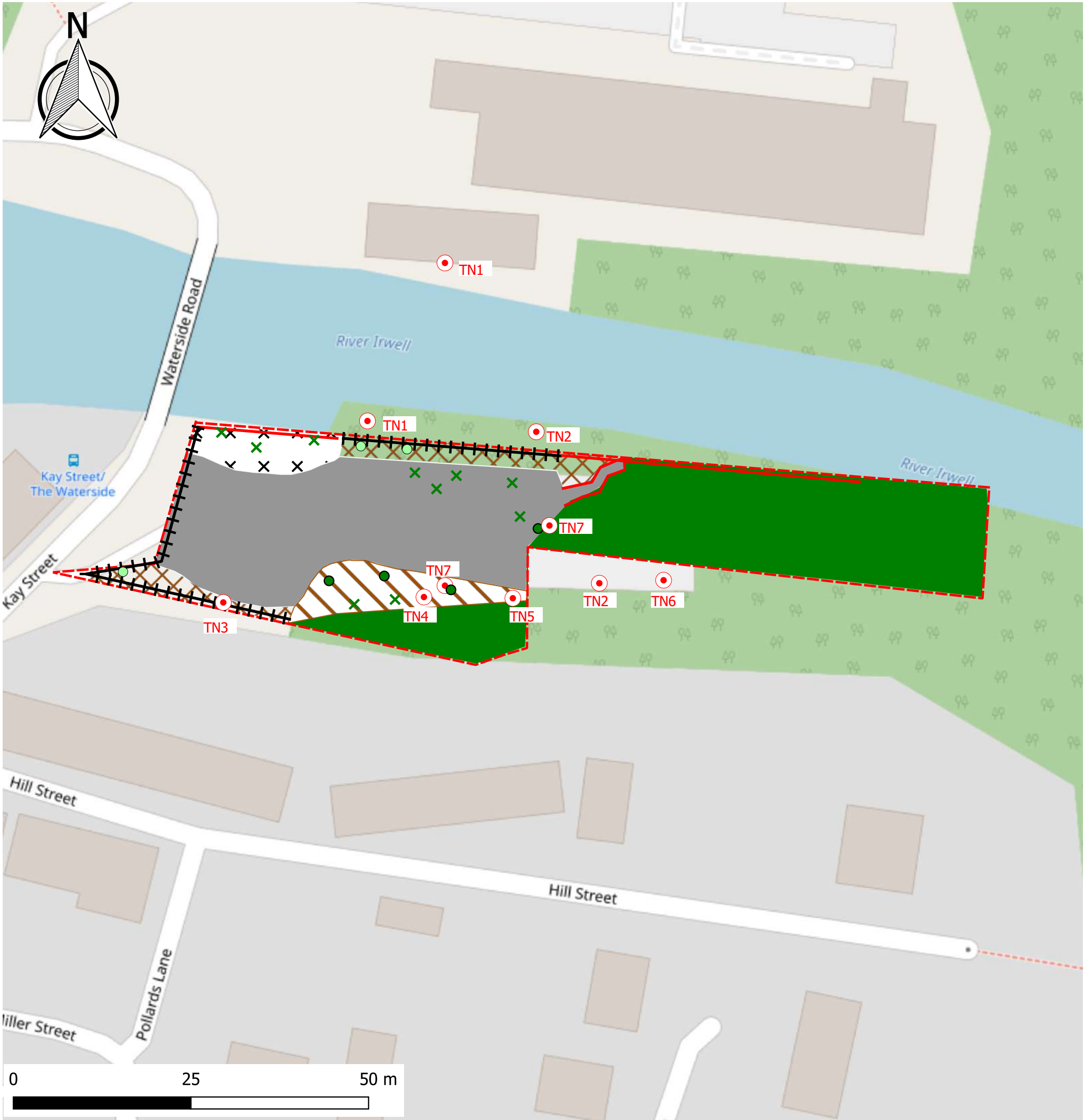
- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)

Projection = OSGB36
xmin = 354800
ymin = 402300
xmax = 405100
ymax = 426700
Map produced by MAGIC on 10 August, 2023.
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Appendix 2 – Phase 1 habitat plan

Target note 1 -	<i>Japanese knotweed</i>
Target note 2 -	<i>Himalayan balsam</i>
Target note 3 -	<i>Rhododendron</i>
Target note 4 -	<i>Deadwood pile</i>
Target note 5 -	<i>Variegated yellow archangel</i>
Target note 6 -	<i>Three-cornered garlic</i>
Target note 7 -	<i>Trees assessed as having bat roost potential</i>



Preliminary Ecological Appraisal

**Site: Former Waterside
Pub, Bury**
NGR: SD 79379 15079
Author: Ysobella Cox
Date: 07.08.2023



Key

- | | |
|--|----------------------------------|
| A1.1.1 - Broadleaved woodland - semi-natural | J1.3 - Ephemeral/short perennial |
| A2.2 - Scrub - scattered | J1.4 - Introduced shrub |
| A3.1 - Broadleaved scattered trees | J2.4 - Fence |
| A3.2 - Coniferous scattered trees | J2.5 - Wall |
| C3.1 - Tall ruderal | Target Notes |
| | Survey boundary |

THIS PLAN IS BASED UPON OpenStreetMap® AND IS OPEN DATA, LICENSED UNDER THE OPEN DATA COMMONS OPEN DATABASE LICENCE (ODbI) BY THE OpenStreetMap FOUNDATION.

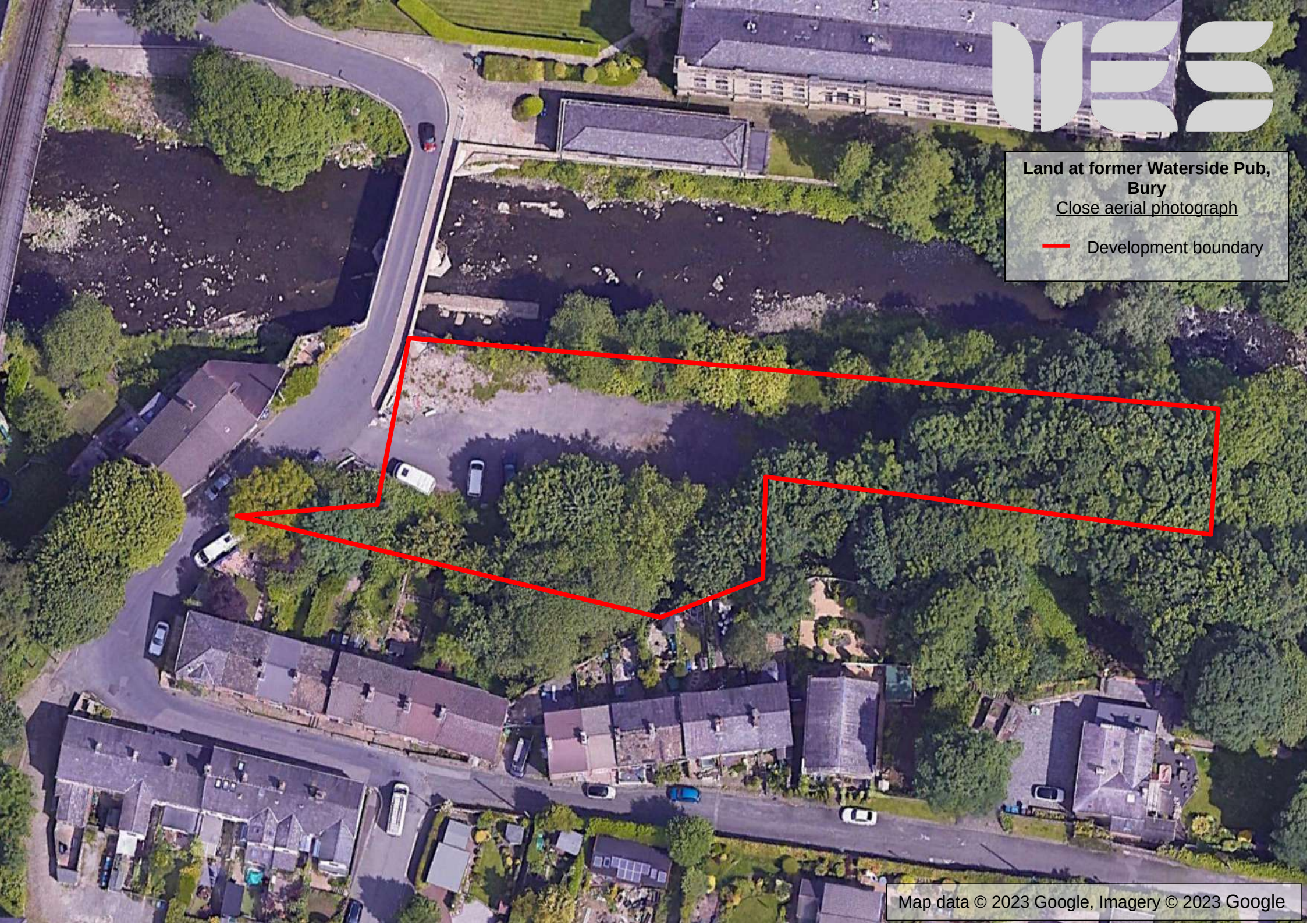
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Appendix 3 – Aerial photographs



Land at former Waterside Pub,
Bury
Close aerial photograph
— Development boundary





Land at former Waterside Pub,
Bury
Wide aerial photograph



Site location





Appendix 4 – Photographs



Photo 1. Facing south-east towards the site. The off-site Japanese knotweed is highlighted with an arrow.



Photo 2. Facing south-east across the hardstanding on site.



Photo 3. Facing north-west towards the introduced shrub on the northern site boundary.



Photo 4. Facing south-west towards the southern section of the site.



Photo 5. Showing the large stand of Japanese knotweed on the opposite river bank to the north of the site (TN1).



Photo 6. Showing the Himalayan balsam 'straw' in the woodland to the east of the site (TN2).



Photo 7. Showing the rhododendron on the southern site boundary (TN3)



Photo 8. Showing the rotten deadwood in the south-eastern section of the site (TN4).



Photo 9. Showing the variegated-yellow archangel, in the woodland to the south-east of the site (TN5).



Photo 10. Showing the three-cornered leek in the woodland to the south-east of the site (TN6).



Photo 11. Showing the sycamore tree with bat roost potential in the eastern section of the site.



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	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
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	Trees
Great crested newts	Hedgerows
Other amphibians	Invasive plant species
Reptiles	Otters
Badgers	Water voles
Hazel dormouse	White-clawed crayfish
Bats	Planning policy
Birds	

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 Amendment (EU exit) Regulations 2019. 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*, Montbretia *Crocasmia x crocosmiiflora* and variegated yellow archangel *Lamiastrum galeobdolon subsp. argentatum*. 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.

A number of invasive, non-native plants species are listed under Schedule 2 (Part II) of the Invasive Alien Species (Enforcement and Permitting) Order 2019. The most commonly encountered listed species in ecological surveys are Himalayan balsam *Impatiens glandulifera* and giant hogweed *Heracleum mantegazzianum*. Section 3 of this Act make it an offence to *plant or otherwise causes to grow in the wild* any plant which is listed on Schedule 2 (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 *Austropotomobius 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 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

The National Planning Policy Framework 2021 (NPPF) provides guidance on the interpretation of the law in relation to the natural environment and development.

National Planning Guidance is issued in the form of the National Planning Policy Framework 2021 (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;

- 174.** 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.
- 179.** 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 biodiversity⁶¹; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation⁶²; 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
- 180.** 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 reasons⁶³ and a suitable compensation strategy exists; and
 - d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

