



Preliminary Ecological Appraisal and Preliminary Roost Assessment

Gaywood Green, Liverpool, L32 6RD

LIVV Housing

Status	Issue	Name	Date
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Industry Guidelines and Standards

This report has been written with due consideration to:

- Chartered Institute of Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017). Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020). Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK. 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- British Standard 42020 (2013). Biodiversity – Code of Practice for Planning and Development.
- British Standard 8683:2021 (2021). Process for Designing and Implementing Biodiversity Net Gain.

Proportionality

The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation, and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary, and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.

The desk studies and field surveys undertaken to provide a Preliminary Ecological Appraisal (PEA) might in some cases be all that is necessary.

(BS 42020, 2013)

Executive Summary

Arbtech Consulting Limited was instructed by LIVV Housing to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Gaywood Green, Liverpool, L32 6RD (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of four unoccupied tower blocks (hereafter referred to as “the proposed development”).

The following is work you will need to commission to comply with planning policy and legislation. Further information, along with opportunities for biodiversity enhancement, are outlined in Table 8 of this report.

Feature	Survey Results Summary	Impact Assessment	Recommendations
Habitats and flora	There are no notable habitats within the site, but three habitats are present within 2km of the site, the closest being deciduous woodland located over 665m south-west on M57 embankment. Habitats on site comprise short amenity grass, hard standing, buildings and scattered trees. No protected or notable plant species were recorded during the survey.	No direct impacts to any notable habitats will occur as a result of the proposed development. However, indirect effects such as tree damage could occur during construction.	Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).
Roosting bats (T1)	Tree 1 has low value for roosting bats. There is ivy coverage on the main trunk which could support low numbers of common species between the trunk and the stems of the ivy. However, within the urban landscape, lack of connectivity and suitable habitats for commuting and foraging routes and lighting present, the suitability is low.	The proposed development will result in the likely felling or pruning of this tree. This could result in destruction of any bat roosts present and could cause disturbance, death, or injury to bats.	Best practice guidelines state that trees with low suitability for roosting bats do not require further surveys. Instead, prior to any pruning or felling, a close-up inspection of any features that could be used by roosting bats will be undertaken to determine the presence or likely absence of roosting bats. This may require a qualified climbing team or a Mobile Elevated Work Platform (MEWP) to access the features. In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.
Foraging and commuting bats	Scattered trees could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.	The proposed development may result in the loss of small areas of scattered trees but given the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats. The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development, which is detailed in Table 8.

Birds	Small numbers of common species were observed during the survey, with pigeons within the balconies and on the flat roof of the high-rise towers.	The high-rise towers will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Demolition of the buildings should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. In particular as pigeons can nest all year round.
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1.0 Introduction and Context

1.1 Background

Arbtech Consulting Limited was instructed by LIVV Housing to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) at Gaywood Green, Liverpool, L32 6RD (hereafter referred to as “the site”). The survey was required to inform a planning application for the demolition of four unoccupied tower blocks (hereafter referred to as “the proposed development”). A plan showing the proposed development is provided in Appendix 1.

The aim of the PEA was to obtain data on existing ecological conditions, and to conduct a preliminary assessment of the likely significance of ecological impacts on the proposed development. The aim of the PRA was to determine the presence or evaluate the likelihood of the presence of roosting bats, and to gain an understanding of how bats could use the site for roosting, foraging, or commuting.

No previous ecology reports have been produced for this site by Arbtech Consulting Ltd or, to the author’s knowledge, by any other consultancy.

1.2 Site Location and Landscape Context

The site is located at National Grid Reference SJ 41792 97672 and has an area of approximately 1.4ha comprising four large, unoccupied residential tower blocks, amenity grass, hard standing, scattered trees and introduced shrubs. It is surrounded by residential properties in all directions, with some recreational green space present to the south and west and large industrial unties to the east. The wider landscape comprises urban sprawl of residential properties, commercial and industrial units with main roads and dual carriageways present. The M57 to the south has some tree lined embankments and there are scattered urban trees in the landscape. A site location plan is provided in Appendix 2.

1.3 Scope of the Report

The PEA element of this report describes the baseline ecological conditions at the site, evaluates habitats within the survey area in the context of the wider environment and describes the suitability of those habitats for notable or protected species. It identifies possible ecological constraints as a result of the proposed development and summarises the requirements for further surveys and mitigation measures to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

The PRA element of this report provides a description of all features suitable for roosting, foraging and commuting bats and evaluates those features in the context of the site and wider environment. It further documents any physical evidence collected or recorded during the site survey that establishes the presence of roosting bats. It provides information on possible constraints to the proposed development as a result of bats and summarises the requirements for any further surveys to inform subsequent mitigation proposals, achieve planning or other statutory consent and to comply with wildlife legislation.

To achieve this, the following steps have been taken:

- A desk study has been carried out.
- A field survey has been undertaken to record baseline information on the site and surrounding area including habitat types and their suitability for notable or protected species, including roosting bats.

- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act) have been identified.
- Potential impacts on features of value, as a result of the proposed development, have been identified.
- Recommendations for further surveys and mitigation have been made.
- Opportunities for the enhancement of the site for biodiversity have been set out.

2.0 Methodology

2.1 Desk Study

The desk study included a review of the magic.gov.uk database for statutory designated sites within a 2km radius of the site. Landscape value and the presence of notable habitats as well as granted European Protected Species Licence (EPSL) and notable species records held on magic.gov.uk database has also been considered where these are within influencing distance of the site.

2.2 Field Survey

The survey was undertaken by Katy Perry BSc (Hons) MCIEEM, Senior Consultant (Natural England Bat Licence Number: 2022-10404-CL18-BAT) on 12th December 2022.

Preliminary Ecological Appraisal

An extended habitat survey was undertaken, following the methodology set out in *UK Habitat Classification User Manual* (UK Habitat Classification Working Group, 2018). All land parcels are described and mapped and, where appropriate, target notes provide supplementary information on habitat conditions, features too small to map to scale, species composition, structure, and management. Botanical species lists were compiled with reference to the DAFOR scale (D = Dominant; A = Abundant, F = Frequent, O = Occasional, R = Rare).

During the survey, habitats were assessed for their suitability to support protected species, and field signs indicating their presence recorded. The assessment takes into consideration the findings of the desk study, the habitat conditions on site and in the context of the surrounding landscape, and the ecology of the protected species.

Preliminary Roost Assessment

The PRA focussed on five built structures and scattered trees which will be affected by the proposed development as well as providing an overview of the wider site and the surrounding landscape for bat roosting, foraging and commuting habitat.

For any surveyed buildings:

A non-intrusive visual appraisal was undertaken from the ground, using binoculars to inspect the external features of the buildings for features which bats could use for roosting, including access or egress points and for signs of bat use including droppings, scratch marks, insect remains and urine smear marks. The surveyor paid particular attention to the floor and flat surfaces, window frames, lintels above doors and windows.

For any surveyed trees:

A visual inspection was undertaken from ground level using binoculars to identify any possible roost features and, where accessible and safe to do so, a close-up inspection of the features was completed using a torch and ladders.

Suitability Assessment

Built structures and trees were categorised according to the likelihood of bats being present and the types of roost that the identified features could support. This is summarised in Table 1 and Table 2 below. Roost suitability is classified as high, moderate, low, and negligible and dictates any further surveys required before works can proceed.

Table 1: Features of a building that are correlated with use by bats.

Classification	Feature of building and its context
High	Buildings or structures with features of particular significance for larger numbers of roosting bats e.g., mines, caves, tunnels, icehouses, and cellars. Habitat on site and surrounding landscape of high quality for foraging bats e.g., broadleaved woodland, tree-lined watercourses, and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting bats e.g., river and or stream valleys and hedgerows. Site is proximate to known or likely roosts (based on historical data). Buildings with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Moderate	Buildings or structures with one or more features suitable for more regular roosting due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation value such as maternity or hibernation roosts. Continuous habitat connected to the wider landscape which could be used by bats for commuting such as lines of trees, linked gardens. Foraging habitat in the surrounding area such as trees, scrub, grassland, or water.
Low	Buildings or structures with one or more features suitable for use sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities, or upwards orientation with exposure to inclement weather or predators. Habitat suitable for foraging in close proximity, but largely isolated in the landscape. Or an isolated site not connected by prominent linear features.
Negligible	Unsuitable for use by bats.

Table 2: Features of a tree that are correlated with use by bats.

Classification	Feature of tree and its context
Moderate to high (Difficult to separate moderate or high value trees from ground level without a close-up inspection)	A tree with one or more potential roost sites that are obviously suitable for use by bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and surrounding habitat. Trees with high suitability could support roosts of high conservation value such as maternity or hibernation roosts.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential to be used sporadically by individual or small numbers of bats. Potential roost features may be suboptimal for reasons such as shallow depth, poor thermal qualities, or upwards orientation with exposure to inclement weather or predators.
Negligible	Unsuitable for use by bats.

2.3 Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site. This assessment provides a preliminary view of the likelihood of protected species being present. This is based on suitability of the habitats on the site and in the wider landscape, the ecology and biology of species as currently understood, and the known distribution of species as recovered during the searches of historical biological records.

A biological records data search has not been undertaken. However, given the location of the site, the nature of the habitats present and the assessed suitability of the site for protected or notable species, it is not anticipated that the purchase of biological records data will add any significant weight or alter the conclusions and recommendations outlined in this report.

The PEA survey was completed outside of the optimal survey period (April to October) limiting the identification of ground flora species.

The buildings were only assessed externally as no internal access was provided. However, the buildings had flat roofs which are suboptimal for supporting roosting bats and have no void spaces for bats such as long-eared bats.

These limitations have been taken into account during the evaluation of the site and requirement for further surveys and mitigation.

3.0 Results and Evaluation

3.1 Designated Sites

Details of any statutory designated sites within a 2km radius of the site, including their reasons for notification, are provided in Table 3 below. The presence of non-statutory designated sites within 2km cannot be established without biological records data from Merseyside Biobank. However, it is considered unlikely that such sites would be present in the immediate vicinity due to the lack of greenspace and built-up nature of the land surrounding the site.

Table 3: Statutory designated sites within 2km radius of the site

Designated site name	Distance from site	Reasons for notification from Natural England
Acornfield Plantation Local Nature Reserve (LNR)	1.55km east	Predominantly mature broadleaf woodland of birch, oak, and sycamore. The centre of the site has a lowland basin mire dominated by sphagnum moss and soft rush. Other habitats include a pond, stream, drainage channels, acidic and neutral grasslands, bracken, and rhododendron thickets.
Croxteth LNR	1.6km south	The LNR was created from the former Mull Wood plus other woodland areas such as Cocked Hat Wood, Dam Wood, The Wilderness, and Icehouse Woods together with some agricultural land in the park. The reserve has woodland, rough grassland and pasture, several ponds and is bounded by the River Alt. A variety of birds breed in the woodland and the ponds are good for plants such as water dropwort and dragonflies.

3.2 Field Survey Results

The results of the field survey are illustrated in Appendix 3. The weather conditions recorded at the time of the survey are shown in Table 4.

Table 4: Weather conditions during the survey

Date:	12/12/2022
Temperature	-1°C
Humidity	48%
Cloud Cover	100%
Wind	0mph
Rain	Frost and light snow coverage

Habitats and Flora

The following habitats are present within and adjacent to the site:

- Buildings – u1b5 109 residential
- Hard standing – u1b 89 car parking 111 road 1232 non-permeable paving
- Short managed grass – g4 64 mown 212 neighbourhood park
- Introduced shrubs – u1 1160
- Scattered urban trees – u1 11 scattered trees 1170

A description and photographs of each habitat are provided in Table 5.

No protected or non-native invasive plant species (as listed under Schedules 8 or 9 of the Wildlife and Countryside Act 1981) were identified on the site. However, due to the time of year in which the survey was undertaken it is possible that such species would not be visible.

Table 5: Description and photographs of habitats within and adjacent to the site

Habitat type	Habitat description	Photograph
Buildings – u1b5 109 residential Hard standing – u1b 89 car parking 111 road 1232 non-permeable paving Short managed grass – g4 64 mown 212 neighbourhood park Introduced shrubs – u1 1160 Scattered urban trees – u1 11 scattered trees 1170	The site contains four, unoccupied residential tower blocks. These are due to be demolished. There all have the same structure, shape, and height. The site has large areas of tarmac hard standing for access paths, roads and there are paving slabs for pathways between the four large structures. There is short managed grass around the site, which is kept to a short sward length. It was covered with a hard frost during the survey, which made it easier to identify footprints of any mammals within the area melting in the frost. There are scattered trees around the perimeter of the site. These were bare of foliage due to the time of year and were able to be inspected for any features for roosting bats – of which none were observed bar two trees to the east of the site which have ivy coverage. No birds' nests were observed within the trees either.	

Short managed grass – g4 64 mown 212 neighbourhood park Introduced shrubs – u1 1160 Scattered urban trees – u1 11 scattered trees 1170	Trees on site included ash, cherry, and large field maples. There are some small patches of introduced shrubs around the walls and some sections around the towers. Much of the vegetation had died back over the winter but the shrubs were restricted to very small areas of the site. In the grass, there was perennial rye grass, meadow species, dandelion, and clover, but due to the short sward length and the suboptimal season for surveying, The grass at the current length is of negligible ecological value.	
Buildings – u1b5 109 residential Hard standing – u1b 89 car parking 111 road 1232 non-permeable paving Short managed grass – g4 64 mown 212 neighbourhood park Introduced shrubs – u1 1160 Scattered urban trees – u1 11 scattered trees 1170	The entire site and the tower blocks have secure walls around perimeter with sure metal fencing and gates. This prevents many animals entering the site, but also it is fenced off due to the unoccupied nature of the buildings. This is secure around the entire perimeter bar one road entering the site to the car park.	

Buildings – u1b5 109 residential Hard standing – u1b 89 car parking 111 road 1232 non-permeable paving Short managed grass – g4 64 mown 212 neighbourhood park Introduced shrubs – u1 1160 Scattered urban trees – u1 11 scattered trees 1170	There are some secure storage units present on the site on the car park. The grass is managed to a short sward across the entire site. The only prints found within the frost across the site belonged to birds and grey squirrel. There is a secure wall and/or metal fencing around the perimeter, preventing entry into the site.	
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Fauna

Bats

The results of the PRA are provided in Table 6. No evidence of roosting bats was identified during the survey.

Table 6: Assessment of the suitability of the site for bats

Feature	Description	Photographs
Historical records	There was one EPSL returned within 2km of the site, which was located 1.9km south-west, over the M57, for the destruction of a common pipistrelle resting place.	
Bat foraging and commuting habitat	There is a lack of connectivity within the landscape, with a small number of scattered urban trees. There is a woodland and wooded embankment of the M57 to the south of the site, over 650m south-west of the site. There are no waterbodies within 500m of the site or suitable foraging locations.	

B1, B2, B3 and B4 - overview	The flats are all constructed to the same design. There is exposed brickwork around the buildings, which despite being unoccupied, the brickwork is in good condition and the mortar appears to be present with no gaps or cracks. All of the flats have boarded windows and doors on the ground and first floor to prevent entry into the building. The majority of the windows across the site are present and intact, with secure frames and no means of ingress. However, buildings two and three have smashed windows on some of the flats. These holes are large enough for anything to enter the buildings, such as pigeons, which were observed on the flat roofs and balconies of the residential towers.	
B1, B2, B3 and B4	The buildings on site have unusual shapes and dip in, likely where internal elevators are present. There is a rendered cladding present on all the buildings within the centres which appears to be secure. There are windows present within the section which are secure with no openings present and no gaps around the frames. The high-rise towers have security light present, as shown in the image opposite, which reduces the suitability for supporting roosting bats. The brickwork present around the perimeter of the building is in very good condition with no missing mortar present between the bricks and no means of ingress or suitable crevice dwelling spaces.	

B1, B2, B3 and B4	Many of the balconies present across the four towers have netting present in order to prevent nesting birds, however, as shown in the image opposite, there are large tears within the netting. Pigeons were observed on the flat roof of the building and flying within the balcony areas of the flats. It is assumed that where windows are broken that pigeons have entered the building.	
B1, B2, B3 and B4 – suitability assessment	The high-rise towers have flat roofs with rendered edges as shown in the image opposite. There has been some cracking of the concrete present, but there are no gaps or means of ingress, it just reveals more concrete. There are plastic “bargeboards” above the windows across the flats, but they are secure and flush to the buildings with no lifting. The high-rise towers are in relatively good condition. The brickwork is secure, and the windows and doors have no crevices for roosting bats. There are some smashed windows present around the buildings, in particular B2. The buildings were seen to support pigeons. Where pigeons are present in large numbers, roosting bats are less likely due to the mess and disturbance of pigeons. The high-rise buildings were deemed to be of negligible value as they lacked features such as any lifted cladding or any gaps that could allow bats to roost within. The buildings are unoccupied.	

B5 & B6 – overview	In addition to the high-rise towers on site, there are single storey garages present on the site too. The majority of these garages had open doors, as shown in the image opposite. Those with doors present, were securely closed. The garages do not connect to one another internally and are all separate compartments within the long row of garages. The brickwork around the garages is secure with no missing mortar or gaps between the brickwork. The interior of the open garages was searched for any evidence of bats such as droppings or feeding remains, but none were observed. The flat surfaces of the sides and ceiling are suboptimal for roosting bats and there are a lack of crevices, pitches, or timbers to roost within or behind. The open nature also reduces the suitability for roosting bats due to the presence of high levels of light and inclement weather/temperature fluctuations.	
B5 & B6 – suitability assessment	The garages are open to the elements, high light levels and lack any suitable features for supporting roosting bats. There was no evidence of roosting or foraging bats observed within the garages and no evidence that birds had been nesting within them during the previous season.	

T1 – suitability assessment	To the east of the site, along the boundary within the amenity grass, there is a large tree with ivy present on the trunk of the tree. This is likely to support roosting bats as the ivy stems are relatively thick, but they also obscure the condition of the tree. In addition, the foliage could support nesting birds. No obvious features such as wounds, rot holes or torn limbs were observed, but ivy in itself can support bats of low numbers behind the stems between the trunk and the stems. Due to the lack of connectivity, lack of optimal habitats in the surrounding landscape and the lighting present on the site and around, the tree is concluded to have low value for roosting bats.	
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Other Species

An assessment of the suitability of the site for protected or notable species is provided in Table 7.

Table 7: Assessment of the suitability of the site for protected or notable species

Species	Assessment of suitability
Amphibians	There are no EPSLs within 2km of the site, and there are no pond data or licence returns for within 2km of the site. There is one pond within 500m of the site which is situated approximately 205m south. With the wall around the perimeter of the site, secure fencing, and suboptimal habitats present including mown, managed amenity grass and hard standing, the site is unlikely to support amphibians.
Reptiles	The site is situated within a very urban and residential area, with walled perimeter boundaries. The short, mown grass is suboptimal for foraging and basking reptiles and isolated from the surroundings. There are no areas of scrub or dense vegetation that could support overwintering reptiles.
Badgers	There was no evidence of badgers observed on site. No paths or prints were observed across the site within the frost and vegetation. There were no mammal paths within the vegetation on site and no sett entrances, snuffle holes, hairs, or latrines. With the lack of connectivity in the landscape and availability of foraging, with a walled perimeter, it is unlikely badgers will be present on site.
Hazel Dormouse	The site is outside of the natural geographic range for dormice. In addition, the trees on site are scattered with no connective canopy or connectivity to larger woodlands in the landscape that could support dormice.
Hedgehog	The site is walled and fenced around the perimeter, lacking any dense scrub or vegetation that could support overwintering or sheltering hedgehogs. The site is suboptimal for hedgehogs.

Riparian mammals	There are no watercourses present on or adjacent to site or within 500m that could support otter or water vole and therefore no impacts are proposed to riparian mammals.
Birds	Species identified on site included pigeon, magpie, pied wagtails, blackbirds, and wrens. No evidence of nesting birds was observed within the garages, but pigeons were seen on the balconies and the roof of the high-rise towers.
Invertebrates	The grass is mown short on site and there are large areas of hard standing and buildings which are suboptimal for invertebrates within the urban landscape.

4.0 Conclusions, Impacts and Recommendations

4.1 Informative Guidelines

A summary of the relevant legislation and planning policies is provided in Appendix 4.

Likelihood of the Presence of Protected Species

Where physical evidence of the presence of protected species is indeterminate during the survey, the habitats on site are evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Where this report supports a planning application, the ecological interest of the study area (i.e., the area covered by the desk study and field survey), and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity.

4.2 Evaluation

Taking the desk study and field survey results into account, Table 8 presents an evaluation of the ecological value of the site and also details any ecological constraints identified in relation to the proposed development which will comprise the demolition of four unoccupied tower blocks.

Table 8: Evaluation of the site and any ecological constraints

Feature	Survey Results Summary	Impact Assessment	Recommendations	Biodiversity Opportunities ¹ Enhancement
Designated sites	There are two statutory sites within 2km of the site, the closest being Acornfield Plantation Local Nature Reserve (LNR) located 1.5km from the site.	No impacts to designated sites are anticipated due to the small scale and distance of the proposed development from such sites (where known) as well as the urban location of the site with surrounding physical barriers.	None.	None.
Habitats and flora	There are no notable habitats within the site, but three habitats are present within 2km of the site, the closest being deciduous woodland located over 665m south-west on M57 embankment.	No direct impacts to any notable habitats will occur as a result of the proposed development. However, indirect effects such as tree damage could occur during construction.	Retained trees should be protected in line with the measures outlined in the British Standard "Trees in Relation to Design, Demolition and Construction to Construction - Recommendations" (BS 5837) (2012).	The following habitat creation and enhancement opportunities could be incorporated into the proposed development:

¹ The Local Planning Authority has a duty to ask for enhancements under the NPPF (2021).

	Habitats on site comprise short amenity grass, hard standing, buildings and scattered trees. No protected or notable plant species were recorded during the survey.			- Planting of native trees at a ratio of 2:1 where trees are removed for demolition. - Installation of a native hedgerow around the perimeter Species-specific enhancement opportunities are detailed later in this table.
Amphibians	There is one pond in 500m, but it is over 200m south and looks to be vegetated on aerial imagery. In addition, the site is walled around the perimeter and contains suboptimal habitats for supporting amphibians.	No impacts are anticipated on great crested newt, as a result of the proposed development as this species is considered to be absent from the site.	None.	None.
Reptiles	The site is walled with suboptimal habitats for reptiles and situated within an urban landscape, unlikely to support reptiles.	No impacts are anticipated on reptiles as a result of the proposed development.	None.	None.
Roosting bats (T1)	Tree 1 has low value for roosting bats. There is ivy coverage on the main trunk which could support low numbers of common species between the trunk and the stems of the ivy. However, within the urban landscape, lack of connectivity and suitable habitats for commuting and foraging routes and lighting present, the suitability is low.	The proposed development will result in the likely felling or pruning of this tree. This could result in destruction of any bat roosts present and could cause disturbance, death, or injury to bats.	Best practice guidelines state that trees with low suitability for roosting bats do not require further surveys. Instead, prior to any pruning or felling, a close-up inspection of any features that could be used by roosting bats will be undertaken to determine the presence or likely absence of roosting bats. This may require a qualified climbing team or a Mobile Elevated Work Platform (MEWP) to access the features. In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	The installation of four (total) bat boxes at the site will provide additional roosting habitat for bats. The bat boxes will be installed on the retained mature trees around the site. Bat boxes should be positioned 3-5m above ground level facing in a south or south-westerly direction with a clear flight path to and from the entrance, away from artificial light. The bat boxes will be a specification suitable for crevice dwelling species such as NHBS improved crevice bat boxes or a similar alternative brand.
Roosting bats (B1-B6)	All the buildings on site have negligible value for roosting bats due to a lack of potential roost features.	Bats are very unlikely to be roosting within these buildings and as such, there are not anticipated to be any impacts on roosting bats as a result of the demolition to these buildings.	In the unlikely event that a bat or evidence of bats is discovered during the development all work must stop and a bat licensed ecologist contacted for further advice.	As above.

Foraging and commuting bats	Scattered trees could be used by local bat populations for foraging and commuting. These could also be used by bats dispersing from nearby roosts outside of the site.	The proposed development may result in the loss of small areas of scattered trees but given the presence of more extensive areas of foraging and commuting habitat in the locality, this is likely to be inconsequential for bats. The proposed development will include the use of lighting which could spill on to bat roosting, foraging or commuting habitat and deter bats from using these areas.	A low impact lighting strategy will be adopted for the site during and post-development, which will include the following measures: • Light spill on scattered trees should be avoided. • Use narrow spectrum light sources to lower the range of species affected by lighting. • Use light sources that emit minimal ultra-violet light. • Avoid white and blue wavelengths of the light spectrum to reduce insect attraction and where white light sources are required in order to manage the blue shortwave length content they should be of a warm / neutral colour temperature <4,200 kelvin. • Not use bare bulbs and any light pointing upwards. The spread of light will be kept in line with or below the horizontal. • Light spill will be reduced via the use of low-level lighting used in conjunction with hoods, cowls, louvers, and shields. Lights will also be directional to ensure that light is directed to the intended areas only. • External lighting will be on PIR sensors that are sensitive to large objects only (so that they are not triggered by passing bats) and will be set to the shortest time duration to reduce the amount of time the lights are on. • Wall lights and security lights will be 'dimmable' and set to the lowest light intensity settings. There are several products on the market that allow the control of the light intensity and the duration that the lights are on. All lighting	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for foraging bats: • Retention of trees on site where possible. • Planting of native tree, shrub, and hedgerows to increase foraging opportunities.
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			on the developed site will make use of the most up to date technology available.	
Badger	No evidence of badgers was observed on site and due to the suboptimal habitats present on site, it is assumed there will be no impact on badgers.	No impacts are anticipated on badgers as a result of the proposed development.	None.	None.
Hazel dormouse	The site is outside of the natural geographic range and lacks suitable habitats on or adjacent to site to support dormice.	No impacts are anticipated on hazel dormice as a result of the proposed development.	None.	None.
Hedgehog	The site is walled and fenced and lacks suitable habitats for overwintering or sheltering hedgehogs.	No impacts are anticipated on hedgehogs as a result of the proposed development.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for hedgehogs: Gaps in the perimeter fencing and walls to allow hedgehogs that may be present in the landscape to commute
Riparian mammals	There are no watercourses within 500m of the site, and no riparian habitats on or adjacent to site.	No impacts are anticipated on otters or water vole as a result of the proposed development.	None.	None.
Birds	Small numbers of common species were observed during the survey, with pigeons within the balconies and on the flat roof of the high-rise towers.	The high-rise towers will be removed during construction. The loss of such habitats is likely to be inconsequential to local bird populations owing to their low value and the presence of more extensive habitat locally. However, the proposed development could result in the destruction or the disturbance and subsequent abandonment of active bird nests.	Demolition of the buildings should be undertaken outside the period 1st March to 31st August. If this timeframe cannot be avoided, a close inspection of the building should be undertaken immediately, by qualified ecologist, prior to the commencement of work. All active nests will need to be retained until the young have fledged. In particular as pigeons can nest all year round.	The installation of six bird boxes at the site will provide additional nesting habitat for birds. The bird boxes will be installed on mature trees around the site. General purpose bird boxes should be positioned 3m above ground level where they will be sheltered from prevailing wind, rain, and strong sunlight. Species-specific bird boxes should be installed in line with manufacturers specifications. For example, boxes to support robins, sparrows and urban species should be considered.

Invertebrates	There are no notable habitats on site for supporting invertebrates.	No impacts are anticipated on notable species or populations of invertebrates as a result of the proposed development.	None.	The following habitat creation and enhancement opportunities could be incorporated into the proposed development which would be beneficial for invertebrates: • Improvement and enhancement of the existing grass to wildflower meadows • Planting of fruit trees • Installation of bee bricks on site
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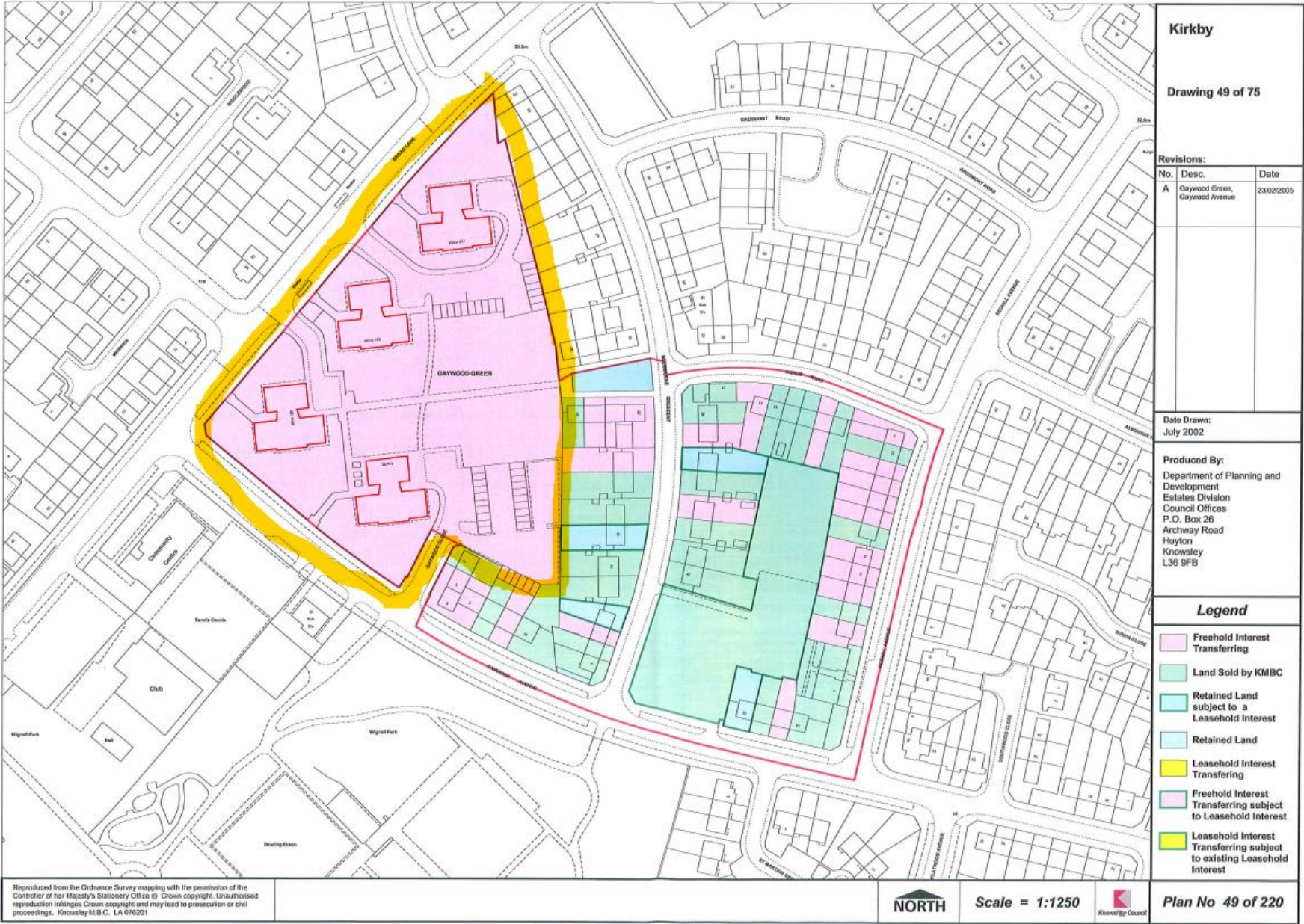
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Appendix 1: Proposed Development Plan



Appendix 2: Site Location Plan



Appendix 3: Habitat and PRA Survey Plan



Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds (the Wild Birds Directive) respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe. Over 1000 animal and plant species, as well as 200 habitat types, listed in the directive's annexes are protected in various ways:

Annex II species (about 900): core areas of their habitat are designated as Sites of Community importance (SCIs) and included in the Natura 2000 network. These sites must be managed in accordance with the ecological needs of the species.

Annex IV species (over 400, including many Annex II species): a strict protection regime must be applied across their entire natural range, both within and outside Natura 2000 sites.

Annex V species (over 90): their exploitation and taking in the wild is compatible with maintaining them in a favourable conservation status.

SPAs are classified under Article 2 of the Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds both for rare bird species (as listed on Annex I) and for important migratory species.

The Conservation of Habitats and Species Regulations 2017 (as amended) form the legal basis for the implementation of the Habitats and Birds Directives in terrestrial areas and territorial waters out to 12 nautical miles in England and Wales (including the inshore marine area) and to a limited extent in Scotland and Northern Ireland.

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as “*areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres*”.

However, they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended 01.04.1996) with further protection provided by the Countryside and Rights of Way (CROW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites.

The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g., SACs & SPAs). Further provisions for the protection and management of SSSIs have been introduced by the Nature Conservation (Scotland) Act 2004.

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare Local Nature Reserves (LNRs) under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education, and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as Local Wildlife Sites (LWS) and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies, or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) aims to promote the maintenance of biodiversity by requiring the Secretary of State to take measures to maintain or restore wild species listed within the Regulations at a favourable conservation status.

The Regulations make it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2, or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 4. However, these actions can be made lawful through the granting of licenses by the appropriate authorities. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on wild population of the species concerned.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1979, implemented 1982) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act 1992 which makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure, or take a badger.
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof.
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof.
- Intentionally or recklessly disturb a badger when it is occupying a badger sett.
- Intentionally or recklessly cause a dog to enter a badger sett.
- Sell or offers for sale, possesses, or has under his control, a live badger.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A development licence will be required from the relevant countryside agency (i.e., Natural England) for any development works likely to affect an active badger sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agencies to define what would constitute a licensable activity. It is not possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests, and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

- Intentionally kill, injure, or take any wild bird.
- Intentionally take, damage, or destroy the nest of any wild bird while it is in use or being built.
- Intentionally take or destroy an egg of any wild bird.
- Sell, offer, or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and are commonly referred to as “Schedule 1” birds.

This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young.
- Intentional or reckless disturbance of dependent young of such a bird

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works should be planned to avoid the possibility of killing or injuring any wild bird or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Amphibians and Reptiles

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita*, pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring, or capturing of Schedule 2 species.
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate.
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA, and they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering, or exposing for sale, possession or transporting for purpose of sale.

Other native species of reptiles are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e., the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis*. It is prohibited to:

- Intentionally or recklessly kill or injure these species.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e., Natural England) will be required for works likely to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g., survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard, and slow worm, thus avoiding contravention of the WCA.

Water Voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

- Intentionally kill, injure, or take (capture) water voles.
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection.
- Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

If development works are likely to affect habitats known to support water voles, the relevant countryside agency (i.e., Natural England) must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g., the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring, or capturing of Schedule 2 species.
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate.
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e., Natural England) will be required for works likely to affect otter breeding or resting places (often referred to as holts, couches, or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g., survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring, or capturing of Schedule 2 species (e.g., All bats)
- Deliberate disturbance of bat species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate.
 - To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e., Natural England) will be required for works are likely to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSL. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Hazel Dormice

Hazel dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring, or capturing of Schedule 2 species.
- Deliberate disturbance of species in such a way as:
 - To impair their ability to survive, breed, or reproduce, or to rear or nurture young;
 - To impair their ability to hibernate or migrate.

- To affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require a European Protected Species Licence (EPSL) issued by the relevant countryside agency (i.e., Natural England). The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White Clawed Crayfish

There is a considerable amount of legislation in place in an attempt to protect the White-clawed crayfish *Austropotamobius pallipes*. This species is listed under the European Union's (EU) Habitat and Species Directive and is listed under Schedule 5 of the Wildlife and Countryside Act (1981). This makes it an offence to:

- Protected against intentional or reckless taking.
- Protected against selling, offering, or advertising for sale, possessing or transporting for the purpose of sale.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

The relevant countryside agency (i.e., Natural England) will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, crush, drown, drag, or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation Afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person from:

- Intentionally picking, uprooting or destruction of any wild Schedule 8 species
- Selling, offering, or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof
- In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:
 - Deliberately pick, collect, cut, uproot, or destroy a wild Schedule 5 species.
 - Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

A European Protected Species Licence (EPSL) will be required from the relevant countryside agency (i.e., Natural England) for works which are likely to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England to plant or cause to grow in the wild due to their impact on native wildlife.

Species included (but not limited to):

- Japanese knotweed *Fallopia japonica*
- Giant hogweed *Heracleum mantegazzianum*
- Himalayan balsam *Impatiens glandulifera*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site, however, it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g., earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any landowner or occupier may be required prevent the spread of certain ‘injurious weeds’ including (but not limited to):

- Spear thistle *Cirsium vulgare*
- Creeping thistle *Cirsium arvense*
- Curled dock *Rumex crispus*
- Broad-leaved dock *Rumex obtusifolius*
- Common ragwort *Senecio jacobaea*

EFFECT OF LEGISLATION AND POLICY ON DEVELOPMENT WORKS

It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY***Environment Act 2021***

The Environment Act 2021 (EA 2021) received Royal Assent on 9 November 2021 and is expected to become fully mandated within the next couple of years. The Act principally creates a post Brexit framework to protect and enhance the natural environment. Through amendments to the Town and Country Planning Act 1990, the Act will require all planning permissions in England (subject to exemptions which is likely to include householder applications) to be granted subject to a new general pre-commencement condition that requires approval of a biodiversity net gain plan. This will ensure the delivery of a minimum of 10% measurable biodiversity net gain. The principal tool to calculate this will be the Defra Biodiversity 3.0 Metric. Works to enhance habitats can be carried out either onsite or offsite or through the purchase of 'biodiversity credits' from the Secretary of State. However, this flexibility may be removed (subject to regulations) if the onsite habitat is 'irreplaceable'. Both onsite and offsite enhancements must be maintained for at least 30 years after completion of a development (which period may be amended).

National Planning Policy Framework 2021

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration, and re-creation. The protection and recovery of priority species (considered likely to be those listed as species of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; measurable gains in biodiversity in and around developments are incorporated; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and the Biodiversity Duty

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity'. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

EUROPEAN PROTECTED SPECIES POLICIES

In December 2016 Natural England officially introduced the four licensing policies throughout England. The four policies seek to achieve better outcomes for European Protected Species (EPS) and reduce unnecessary costs, delays and uncertainty that can be inherent in the current standard EPS licensing system. The policies are summarised as follows:

- Policy 1; provides greater flexibility in exclusion and relocation activities, where there is investment in habitat provision;
- Policy 2; provides greater flexibility in the location of compensatory habitat;
- Policy 3; provides greater flexibility on exclusion measures where this will allow EPS to use temporary habitat; and,
- Policy 4; provides a reduced survey effort in circumstances where the impacts of development can be confidently predicted.

The four policies have been designed to have a net benefit for EPS by improving populations overall and not just protecting individuals within development sites. Most notably Natural England now recognises that the Habitats Regulations legal framework now applies to 'local populations' of EPS and not individuals/site populations.