



Land at former Lilley and Stone School, London Road, Newark-on-Trent, Nottinghamshire



Preliminary Ecological Appraisal Report

BBE-00113-01



Report reference	BBE-00113-01
Author	Charlotte Green BSc (Hons) Ecologist
Technical Review	Alex Robinson BSc (Hons), MSc, ACIEEM, Senior Ecologist
QA	Patrick Hamblin BSc (Hons), MSc Assistant Ecologist
Authorised	Alex Robinson BSc (Hons), MSc, ACIEEM, Senior Ecologist
Date Revision A	13/12/2022- Results of initial survey and recommendations
Date Revision B	06/10/2023- Updated to reflect revised plans.
Date Revision C	12/01/2024- Updated survey and final plan assessment

Bowland Brooks Environment has prepared this report for the sole use of Bildurn Properties Ltd. The information which we have prepared and provided is in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report does not constitute legal advice. The report is in accordance with the agreement under which our services were performed. No warranty, express or implied, is made as to the advice in this report or any other service provided by us. This report may not be relied upon by any other party except the person, company, agent or any third party for whom the report is intended without the prior written permission of Bowland Brooks Environment. This report presents a snapshot of the site at the date it was surveyed; the conditions and the species recorded present, or likely absent, can change rapidly. Resurvey is recommended to any third-party seeking reliance on this report. The content of this report may, in part, be based upon information provided by others and on the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from third party has not been independently verified by Bowland Brooks Environment unless otherwise stated in the report. This report is the copyright of Bowland Brooks Environment. Unauthorised reproduction or usage by any person is prohibited.

Unit A, 1 Station Road, Guiseley, Leeds, LS20 8BX
Phone: 01943 884451
01200446777
Email: info@bowlandbrooks.co.uk
Registered in England Number 13016485

Contents

Introduction.....	1
Desk Study	2
Designated Sites.....	3
Survey.....	5
Habitat Appraisal.....	5
DEFRA Metric (Baseline).....	16
Faunal Appraisal.....	18
Ecological Opportunities.....	28
Outline Biodiversity Net Gain (BNG) Implications	29
Conclusions and Recommendations	30
References.....	31
Appendix 1 Habitats and Ecological Features	33
Appendix 2 Post-development habitat mapping	34
Appendix 3 List of species recorded	35
Appendix 4 Explanatory Notes and Resources Used	36
Appendix 5 Bat Activity Survey Rationale	39
Appendix 6 Wildlife Legislation, Policy and Guidance	40



Summary

This report is produced to inform Bildurn Properties Ltd of potential ecological constraints associated with their proposed development site to support a planning application at the former Lilley and Stone School, London Road, Newark-on-Trent.

This report is based on a desk study of designated wildlife sites and records of protected or notable species, and an extended Phase 1 Habitat Survey carried out in October 2022 with an updated survey conducted in January 2024 to check for changes to ecological constraints that may have occurred following the previous survey.

Key Findings

The Site largely comprises a complex of school buildings, with associated hardstanding and grassland areas; with a sizeable old and unmanaged playing field to the south with associated scrub and linear trees to the boundaries. The buildings and trees of the Site were surveyed for suitability to support roosting bats and further bat surveys have been recommended. These were undertaken in the 2023 survey season with results and recommendations presented a dedicated report. The desiccated bat report must be read in conjunction with this report. The ecological conditions of the Site were not found to have significantly changed between the 2022 and 2024 survey, save a single building had been subject to arson and the fire damage rendered this building no longer suitable to support roosting bats.

Overall, the Site has limited ecological value due to the low diversity of the habitats and urban setting, with some potential to support foraging & commuting bats and nesting birds.

Through a Biodiversity Net Gain calculation, the Site was found to have a pre-development habitat baseline of 19.76 units and a baseline of 2.77 linear units (formed by lines of trees and hedgerows). The final design is calculated to deliver 8.84 habitat units and 4.45 linear units, with a loss of 55.26% of habitat units and 60.90% gain in linear units post-development with trading standards not met. The biodiversity loss is largely attributed to the loss of the overgrown grassland playing field for new dwellings, partially off-set through creation of new open grassland for open space, but due to the small area this adequate to fully off-set the loss. Creation of additional open grassland space was limited by the constraints of the Site, but new lines of trees and hedgerows have been incorporated into the proposal to improve linear vegetative connections across Site for urban birds and bats. Additional off-setting of the biodiversity loss is considered to deliver better gains for ecology when sought off-site rather than additional creation within a highly constrained urban setting.

Introduction

1. Bowland Brooks Environment was commissioned by Bildurn Properties Ltd to carry out a Preliminary Ecological Appraisal (PEA) of an area of Land at former Lilley and Stone School, London Road, Newark (grid reference SK 79880 53355). Current proposals include the retention of Buildings 1, 2 and 4, to be converted to provide 32 apartments, the retention of a single dwelling and the demolition of the remaining buildings on Site, to facilitate the construction of 35 new dwellings and associated access, parking and landscaping. Additionally, a further 67 dwellings are outlined for construction within the Site.
2. This report is produced with reference to British Standard BS:42020 'Biodiversity Code of Practice for Planning and Development' and the CIEEM (2017) Guidelines for Preliminary Ecological Appraisal.

Purpose of a PEA

3. A PEA is an *initial assessment* of the baseline for a proposed development site and establishes whether the Site is likely to be constrained by ecology, and whether more information is needed to identify the ecological baseline.
4. The subsequent Preliminary Ecological Appraisal Report (PEAR) is intended to give guidance to a developer and assist with the early stages of project planning and design. Where a site is not complex or constrained, and no additional ecological input is necessary the PEAR *may* be sufficient, and suitable to support a planning application.
5. Biodiversity Accounting metrics are used to quantify the value of a Site in Biodiversity Units - which helps in the later stage of assessing the ecological impacts of the proposed development.
6. Biodiversity Units can help to inform avoidance, or on-site mitigation levels required; or as a last resort can translate to a direct monetary value where compensation (off-site) is required. Please be aware that they *can* significantly impact on costs and viability.

The Site

7. The application site 'the Site' (Figure 1) comprises a former school with 11 buildings, associated walkways, car parks and a large unmanaged playing field to the south.
8. The assessment uses a 2km area of search around the Site for records of protected and notable species and locally or nationally designated wildlife sites.

Figure 1 The Site (red line boundary).



Desk Study

Landscape and Wildlife Corridors

9. The Site is located within the centre of Newark-on-Trent, directly bounded by a busy main road to the north and residential estates to the other boundaries. A single area of open space bounds the Site to the south-east comprising a tennis club.
10. The immediate landscape is largely urbanised with limited green corridors connecting the Site to further green open space in the locality. The expanse of built habitats surrounding the Site represents a significant dispersal barrier and deterrent for most species, save those known to be tolerant of urban environments. As the Site is surrounded by typical residential properties, even urban animals such as hedgehogs are likely to have limited dispersal ability due to frequent fences and walls. However, houses and buildings likely offer some roosting opportunities for urban associated bats with several older and traditionally built structures and industrial buildings noted on and close to Site. Residential gardens and parks to the north and south-east are close to the Site with some good connections, likely to offer some foraging opportunities for species like hedgehogs, [REDACTED] and common birds, increasing the likelihood that these species may move between these and undisturbed green areas on Site.
11. The River Trent, a potentially valuable riparian corridor and commuting route for wildlife, runs 0.55km to the north-west of the Site, and a railway line runs 0.8km to the north-east with well vegetated sidings and embankments. These features both represent the only potentially valuable linear commuting corridors through the locality and the Site is poorly linked to both corridors, limiting the likelihood that wildlife may pass through the Site through landscape scale dispersal.

Figure 2 Analysis of wildlife corridors in relation to the Site.



Designated Sites

Statutory Designations

12. A search has been made to identify any nationally designated sites within a 2km radius of the Site, or internationally designated sites within a 10km radius. The results are shown in the below table.

Table 1 Statutory Designated Sites.

Site Name	Distance from Site	Designation	Summary Interest
Devon Park Pastures	0.8km south-west	Local Nature Reserve (LNR)	Area comprising deciduous woodland of English oak, pollard willows and English elm, wet meadows and aquatic habitats

13. Direct and indirect impacts to this designation, as a result of this development, are unlikely due to the Sites separation and distance.

SSSI Impact Risk Zones (IRZs)

14. The Site does not fall into any SSSI impact risk zones.

Non-Statutory Designations

15. There are 18 Local Wildlife Sites in the search area. The majority of these are situated over 1km from the Site and outside of the local urban area and not considered at risk of impact from the proposals. The Local Wildlife Sites (LWS, Trent Bank and Wharves, Queens Sconce and Devon Park are all associated with the nearby River Trent and River Devon, all situated between 500 and 700m to the west. These designations include fen communities along the banks of the Trent and areas of unimproved, acidic and wet grassland. A further designation is situated 1km to the west called Ballast Pit, described as an old pit supporting open water and carr communities.
16. Due to the nature of the development, limited to the Site footprint and immediate surroundings, and lack of connections between designations and the Site, often disrupted by busy roads and dense residential areas, no impacts are anticipated to non-statutory designations.

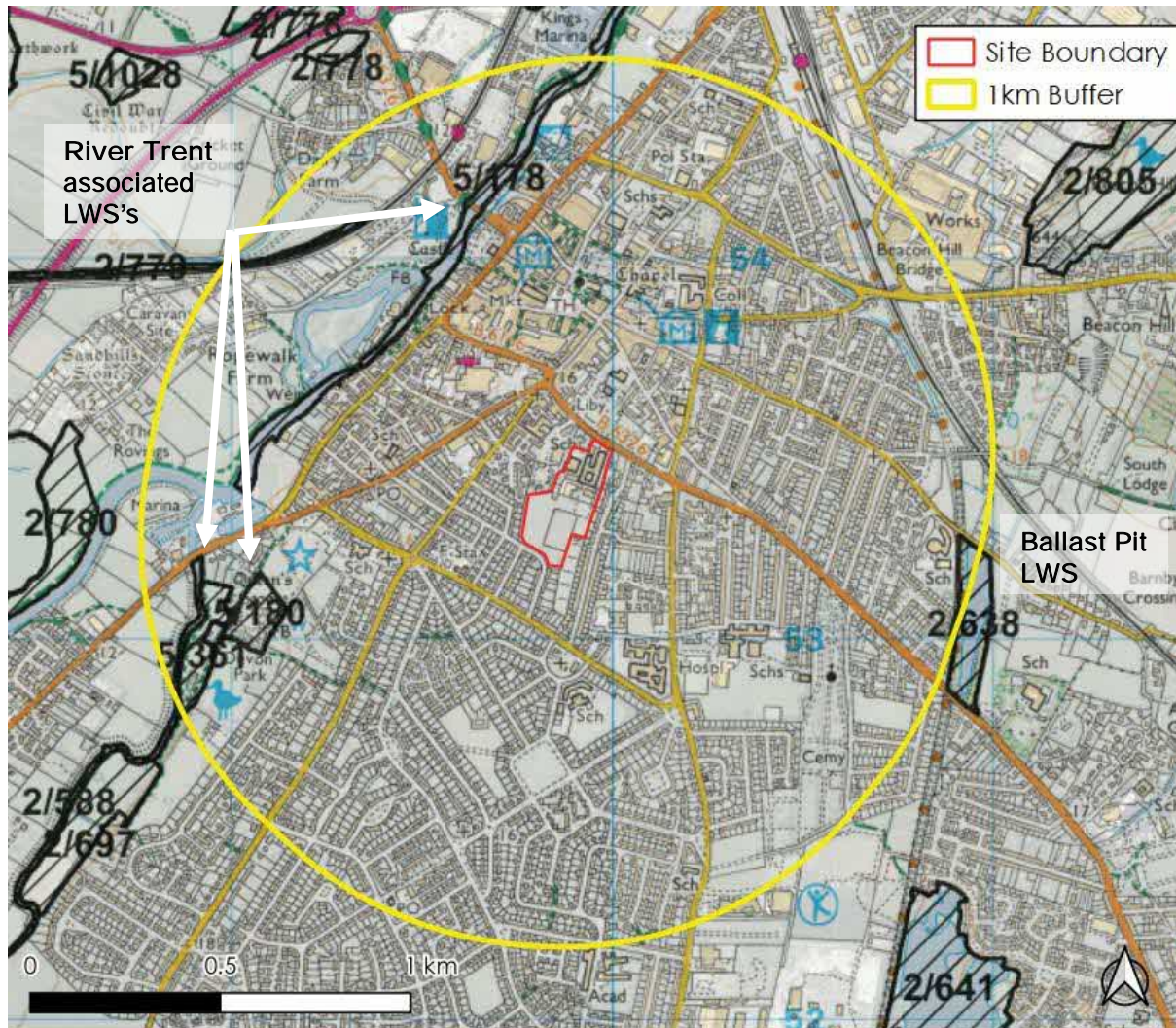
Nature Improvement Area

The Site does not lie within a Nature Improvement Area.

Granted EPSM Licenses

17. Three European Protected Species Mitigation (EPSM) licenses have been granted within 2km of the Site. One was for the disturbance of otter and not relevant to this application. The other two were situated 1.5km to the east and south-east. One was for the destruction of a common pipistrelle resting place from 2016 and the other for the destruction of roosts of common pipistrelle, brown-long eared bat and Natterer's bat, including a breeding roost and resting place.

Figure 3 Analysis of wildlife corridors in relation to the Site.



Survey

18. The survey was carried out during October 2022, with an updated survey in January 2024 to ensure the ecological baseline had not significantly changed. Both surveys followed the principles of Extended Phase 1 Habitat Survey methodology (JNCC, 2010).
19. Enough time was afforded the surveyor to carry out the survey. The survey was not constrained by poor weather. Both surveys were undertaken outside of the optimum period for completing botanical and habitat surveys. However, on both occasions a good number of plant species were able to be identified to confidently recognise the habitat type and potential to support seasonal plant species to trigger survey in the botanical survey season. All surveyors are experienced at identifying plants, including grasses on vegetative features and the results combined with the history of the site was used to conclude the habitat types present.
20. Whilst the majority of the Site was accessible, at least 10% of the Site was inaccessible due to very dense vegetation, which could not be closely inspected. This could have concealed invasive species or protected species evidence.

Habitat Appraisal

21. The Site's habitats are described in order on the following pages. In line with the requirement to provide information on **Biodiversity Net Gain (BNG)**, habitats are named in accordance with the UK Habitats classification system - we have used the relevant UK Habs guidance in identifying habitats. Habitat descriptions are divided into the 'distinctiveness' categories used in the calculations - with more weight being afforded the more distinctive / important habitats.
22. Generally, the following apply to each tier of distinctiveness; although some authorities might highlight some lower distinctiveness habitats as having a higher importance locally. Where relevant we have highlighted these.

Very Low Distinctiveness Habitats

23. Habitats of little or no habitat value i.e., lacking any significant native vegetation, but could still provide supporting habitat for protected or notable fauna such as birds or bats. In the context of BNG - their areas are included in calculation, but mitigation or compensation is not required.

Low Distinctiveness Habitats

24. Habitats which are ubiquitous, often which have been created or modified by man. They tend to lack diversity of species and structure. They are unlikely to support notable flora but could still provide supporting habitat for protected or

notable fauna. In the context of BNG they are included in calculations, but compensation / mitigation needs only to provide habitat of similar or higher distinctiveness.

Moderate Distinctiveness Habitats

25. Habitats which are common but provide a higher level of structural and species diversity, though unlikely to support more notable assemblages, species of interest could be present here and they are more likely to be important supporting habitat to fauna. In the context of BNG mitigation needs to provide habitat of the same broad habitat type, or that of higher distinctiveness.

High Distinctiveness Habitats

26. These are habitats which are more natural and contain more important assemblages of plants and potentially species, which are rare in their own right. They will provide good supporting habitat for fauna. These habitats are likely to be targeted as conservation priorities and will be the subject of additional policy guidance or legislation. In the context of BNG whilst mitigation or compensation for loss or damage is possible, provision of more of the same type of habitat would be required –which (with a few exceptions) is likely to be difficult.

Very High Distinctiveness Habitats

27. These are the UKs rarest / best habitats. They will be present in very particular locations and a range of rare or important plant and animal species will depend on the particular conditions they provide. These habitats will be the subject of restrictive policy guidance or legislation. Whilst the BNG metric does not preclude mitigation or compensation in respect of these habitats, creation of the same habitat type would be required and this would range between very difficult/expensive and impossible.
28. Each habitat is mapped and an area for each type is provided in the format of the DEFRA Biodiversity Metric 4.0 Calculation Tool. The areas can be used to quantify the impacts of development in an Ecological Impact Assessment if this is required by the Local Planning Authority.

Condition Assessment

29. Our condition assessment for each habitat described references where available the criteria set out in DEFRA (2023) Biodiversity Metric 4.0 Technical Supplement (1).
30. Habitats in the Low Distinctiveness tier tend to fall into the poor condition category by default. Where we feel this is not the case, we have explained our reasoning. Habitats within the other higher tiers can fall into a range of conditions. We set out our reasoning based on the given criteria and guidelines.

Habitats of Low/Very Low Distinctiveness

Figure 4 Approximate location and extent of these habitats.



Table 2 Summary – Habitats of Low / Very Low Distinctiveness.

Habitat Code/ Name	Summary Description	Condition
g4- Modified Grassland	Area of mown grassland approximately 3cm in height (Figure 4) comprising dominant perennial rye grass and regularly disturbed by car parking. This habitat has been subject to condition scoring in line with the metric, presented below. No change since 2022 survey.	Poor
u1c- Developed land/ sealed surface Secondary code 17- Ephemeral	Developed land, including 11 buildings, hardstanding footpaths, cricket practice pitch and associated car parks (Figure 5 and 6). Ephemeral vegetation was noted to encroach some of these areas comprising buddleia, Canadian fleabane, herb Robert, yarrow and clematis; mapped with secondary code 17. Cover of ephemeral vegetation had increased since the 2022 survey.	n/a
u1cf- Introduced shrub	An area dominated by non-native species mapped as introduced shrub is located to the north-west. This comprised clematis, ornamental roses, bramble, buddleia and ivy (Figure 7). No change since 2022 survey.	Poor
351- Bare ground Secondary code 712- Artificial educational sports pitches	Three areas of bare ground are present on Site. 1 area of bare ground lies beneath a group of trees (LT5) in the approximate centre of the Site and a bare ground track extends to the south of Site used by cars. To the south a large area of bare ground associated with a fenced playing field was noted (Figure 8). These areas had not changed since 2022 survey.	Poor

Defra Metric Condition Assessment - Poor

Modified Grassland (low distinctiveness)		
	Pass/Fail	Condition
6-8 species on average per 1m ²	Fail	6-7 = Good, including essential criterion 1 4-6 = Moderate, excluding criterion 1 0-3 = Poor
Varied sward height?	Fail	
Scrub <20%?	Pass	
Damage <5%?	Fail	
Bare ground 1-10%?	Fail	
Bracken <20%?	Pass	
Absence of invasives?	Pass	
3/7 Poor		

Habitats of Low/Very Low Distinctiveness

Figure 5 Area of mown modified grassland



Figure 6 Example of sealed surface sports pitch



Figure 7 Buildings and sealed surface walkways throughout Site



Figure 8 Area of introduced shrub along the northern western boundary



Figure 9 Bare ground associated with a playing field



Habitats of Medium Distinctiveness

Figure 10 Approximate location and extent of these habitats.



g3c Other Neutral Grassland

31. Three types of 'other neutral grassland' habitat are present throughout the Site. The first (referred to as G1 below) largely comprises overgrown and unmanaged borders to the footpaths within the built areas. The second comprises other larger amenity areas between buildings to the south (referred to as G2 below). And the last is a large area of undisturbed grassland to the south previously used as a playing field (referred to as G3 below). The distribution of these grasslands had not changed since the previous survey.
32. An area of grassland (G1) to the north of the Site forms a small garden lined by trees. Species comprised smooth meadow grass, red fescue, cock's foot, and Yorkshire fog; with cow parsley, yarrow, ribwort plantain, doves foot cranesbill, herb Robert, and hawkbit sp. and hedge bedstraw. Overgrown with a varied sward height up to 20cm and some small areas of bare ground with some very minimal mahonia scrub encroachment, but no bracken growth. These areas had not significantly changed since the previous survey.
33. Areas of G2 grassland are (G2) found throughout Site making up the borders to footpaths. and small areas for amenity value. Species comprise creeping bent, Yorkshire fog, false oat grass, barren brome, Canadian fleabane, yarrow, hedge bedstraw, green alkanet, hawkbit sp., creeping thistle, ragwort, common nettle and groundsel. Areas were tall with encroaching clematis and a with a varied sward height up to approximately 40cm and some localised areas of bare ground. Undesirable species were noted; however, these species account for less than 5% of the total area. Again these areas had not significant changed since the previous survey.
34. Finally, the large former playing field (G3) dominates the southern aspect of the Site. In 2022 the sward was tall and tussocky up to 40cm in height, with occasional bare ground created through rabbit activity. Tussocks comprised both grass features and mounds created by yellow meadow ants. Species present included, red fescue, creeping bent, Yorkshire fog, false oat grass, cock's foot and timothy. Forbs were scattered and locally frequent including, lady's bedstraw, weld, lambs ear, mouse-eared chickweed, common stitchwort, hedge bedstraw, cats ear and common vetch. Although this area was generally considered to be in good condition, the average number of species per 1m² was consistently lower than 9 (an average of 5 species per m²), reducing its overall condition. The G3 grassland was resurveyed in January 2024 and not found to have significantly changed since the previous visit, with similar species composition and diversity noted. The grassland sward is unmanaged and thick, creating dense thatch limiting areas that fords can establish and their overall cover. No indicator species of higher value grassland were noted and considered unlikely to be present due to the history of the grassland use.

35. Overall, all grasslands were noted to lack the appropriate species diversity to achieve good condition, despite largely being free of scrub encroachment and having good structure with some limited bare ground areas. As all grasslands were very similar these were all covered in the same condition scoring table below. However, due to the rough and unmanaged nature of these areas, they were considered to offer good ground level vegetative cover in a mostly built environment. G1, G2, G3 Defra Metric Condition Assessment –Moderate

Grasslands Medium, High & Very High Distinctiveness		
	Pass/Fail	Condition
Close match to UKHab description	Pass	5 out of 6 = Good, including essential criteria 1 and 6
Varied sward	Pass	
Bare ground 1-5%	Pass	3 -4 = Moderate, including essential criterion 1
Bracken and scrub < 20%	Pass	
Absence of invasives/ suboptimals	Pass	
>9 species per square meter	Fail	1-2 = Poor
	5/6 Moderate	

Figure 11 G1 habitat along northern boundary.



Figure 12 Example of G2 habitat adjacent to building 6.



Figure 13 G3 habitat along eastern boundary facing north.



Figure 14 G3 habitat along the southern boundary facing north.



Figure 15 G3 grassland during the Jan 2024 visit.



Figure 16 G3 grassland during the Jan 2024 visit.



Habitats of Medium Distinctiveness (Cont.)

Figure 17 Approximate location and extent of these habitats.



h3d Bramble scrub

36. A single area of bramble scrub was present on Site, along the northern boundary, situated under a line of trees (LT1), between a car park and the main road occupying a narrow margin. This had limited structure to approximately 1.5m high, intermingling with off-shoots from the associated lime trees.

h3h Mixed Scrub

37. Areas of mixed scrub are present in three areas on Site.
38. MS1 lies to the north of a small car park within the north-western aspect of the Site. Up to 3m in height, species comprise sycamore, holly, plum and bramble. The area of scrub was dense and uniform in age, bounded to the south by a hardstanding car park and to the north by a fence and a line of trees which continues off Site. This habitat was found in poor condition with detailed condition scoring shown overleaf.
39. Two areas of mixed scrub (MS2) with similar structure and composition are located within an overgrown courtyard between buildings 4 and 5 and an overgrown courtyard between buildings 3 and 5. The scrub was up to 3m in height and dense with species limited to buddleia, holly, cherry, ash, sycamore and clematis. The scrub is surrounded by buildings and a small patch of grassland. This habitat is in poor condition.
40. A large area of mixed scrub (MS3) lies along the western Site boundary and extends the length of LT4. Up to 3m tall the majority of this habitat was inaccessible to survey due to the density of the scrub. Species comprise ash, holly, poplar, laurel and buddleia. The scrub is bounded by a large area of grassland (G3) with a well-developed edge to the south, but still only achieved poor condition.
41. The scrub habitats on Site were often dominated by non-natives or invasive species and constrained by built habitats, overall lowering the condition of these habitats. However, the scrub areas were considered to represent good structural vegetation in the context of a largely urbanised locality, with low to moderate ecological value.
42. It is understood that ownership of a small area of MS3 to the western boundary will be transferred to the adjacent properties rather than included in the wider development. This has been retained on the mapping in Figure 15 and the plan in Appendix 1 to reflect the Site at the time of survey, but these areas have been excluded from the Biodiversity Net Gain assessment.

MS1 Defra Metric Condition Assessment - Poor

Scrub		
	Pass/Fail	Condition
Representative of UKHab description and comprises 3 or more woody species	Pass	5 = Good 3-4 = Moderate 0-2 = Poor
Good age range	Fail	
Absence of invasives	Pass	
Well-developed edge	Fail	
Clearings and glades present	Fail	
	2/5 Poor	

MS2 Defra Metric Condition Assessment - Poor

Scrub		
	Pass/Fail	Condition
Representative of UKHab description and comprises 3 or more woody species	Fail	5 = Good 3-4 = Moderate 0-2 = Poor
Good age range	Fail	
Absence of invasives	Fail	
Well-developed edge	Fail	
Clearings and glades present	Fail	
	0/5 Poor	

MS3 Defra Metric Condition Assessment - Poor

Scrub		
	Pass/Fail	Condition
Representative of UKHab description and comprises 3 or more woody species	Fail	5 = Good 3-4 = Moderate 0-2 = Poor
Good age range	Fail	
Absence of invasives	Fail	
Well-developed edge	Pass	
Clearings and glades present	Fail	
	1/5 Poor	

Figure 18 MS1 habitat along the north-western aspect of the Site.



Figure 19 MS2 habitat between buildings 3 and 5.



Figure 20 MS2 habitat between buildings 4 and 5.



Figure 21 MS3 habitat along the western Site boundary.



Linear habitats of Very Low Distinctiveness

Figure 22 Approximate location and extent of these habitats.



Table 3 Summary – Hedgerows of Low / Very Low Distinctiveness.

Habitat Code/ Name	Summary Description	Condition
HR9 (H1)	An ornamental hedgerow comprising rhododendron, cotoneaster, cherry and mahonia within the northern aspect of the Site, separating the front garden from the car park.	Poor
HR9 (H2)	An ornamental hedgerow comprising leylandii etc along the southern aspect of the eastern Site boundary.	Poor

Linear habitats of Low Distinctiveness

Figure 23 Approximate location and extent of these habitats.



LT4 Line of trees

44. A line of trees (LT1), 86m in length, runs spans the length of the northern Site boundary and extends partway along the western boundary. Species comprise mature sycamore, yew, holly, variegated holly, lime, hawthorn, plum, alder, bird cherry, whitebeam, silver maple and tree of heaven. The canopy was largely continuous with two gaps forming entrances to the Site. The line of trees was bounded to the north by hardstanding pavement and to the south by grassland and scrub less than 6m in width. LT1 was found to be in moderate condition.
45. LT2 approximately 20m in length is situated between buildings 5 and 10 bounded by a narrow strip of grassland less than 6m in width. Species comprise semi-mature bird cherry and apple with trees in poor health and poor condition.
46. LT3 lies within an overgrown courtyard between building 3 and 5, at 38m in length. Species comprise semi-mature wild cherry, lime and cypress species. Trees were bounded to the west by mixed scrub and to the east by hardstanding pavement. LT3 is in poor condition.
47. A line of trees (LT4) runs the length of the western boundary, approximately 0.4km in length. Species comprise mature sycamore, pine, Norway maple, holly, horse chestnut, oak, Lombardy poplar, ash, apple, cypress species, elm, laurel, black locust and buddleia. Trees are largely in healthy condition with a continuous canopy. An understory was noted throughout, comprising the mixed scrub habitats described previously. LT4 is in moderate condition.
48. LT5 runs between buildings 6 and 7, approximately 60m in length. Species comprise mature sycamore, horse chestnut, ash, alder, lime and hybrid poplar. The trees are bounded by an area bare ground with a continuous canopy. LT5 is in moderate condition.
49. A line of trees (LT6) is located along the eastern boundary, approximately 20m in length. Species comprise mature lime, horse chestnut, holly and cypress species. LT6 has a continuous canopy with trees largely in healthy condition, bounded to the west by an area of hardstanding. LT6 was found to be in moderate condition.

The lines of trees on Site were all typical representations of urbanised lines of trees, comprising species often found in such environments. The connectivity in the wider locality is limited, however the lines of trees, particularly LT4, offer good vegetative linear connections throughout the Site where this is lacking locally. As outlined in Paragraph 43, a small section of LT4 will be transferred to new ownership, rather than included in proposals and this has been reflected in the Biodiversity Net Gain assessment.

LT1 Defra Metric Condition Assessment - Moderate

Line of trees		
	Pass/Fail	Condition
>70% natives	Fail	5 = Good 3-4 = Moderate 0-2 = Poor
Continuous canopy gaps <10%	Pass	
One or more tree with veteran features	Fail	
6m veg strip either side	Fail	
95% plus trees healthy	Pass	
	2/5 Poor	

LT2 Defra Metric Condition Assessment - Poor

Line of trees		
	Pass/Fail	Condition
>70% natives	Fail	5 = Good 3-4 = Moderate 0-2 = Poor
Continuous canopy gaps <10%	Pass	
One or more tree with veteran features	Fail	
6m veg strip either side	Fail	
95% plus trees healthy	Fail	
	1/5 Poor	

LT3 Defra Metric Condition Assessment - Poor

Line of trees		
	Pass/Fail	Condition
>70% natives	Fail	5 = Good 3-4 = Moderate 0-2 = Poor
Continuous canopy gaps <10%	Pass	
One or more tree with veteran features	Fail	
6m veg strip either side	Fail	
95% plus trees healthy	Pass	
	2/5 Poor	

LT4 Defra Metric Condition Assessment - Moderate

Line of trees		
	Pass/Fail	Condition
>70% natives	Fail	5 = Good 3-4 = Moderate 0-2 = Poor
Continuous canopy gaps <10%	Pass	
One or more tree with veteran features	Fail	
6m veg strip either side	Pass	
95% plus trees healthy	Pass	
	3/5 Moderate	

LT5 Defra Metric Condition Assessment - Moderate

Line of trees		
	Pass/Fail	Condition
>70% natives	Pass	5 = Good 3-4 = Moderate 0-2 = Poor
Continuous canopy gaps <10%	Pass	
One or more tree with veteran features	Fail	
6m veg strip either side	Fail	
95% plus trees healthy	Fail	
	2/5 Poor	

LT6 Defra Metric Condition Assessment - Moderate

Line of trees		
	Pass/Fail	Condition
>70% natives	Pass	5 = Good 3-4 = Moderate 0-2 = Poor
Continuous canopy gaps <10%	Pass	
One or more tree with veteran features	Fail	
6m veg strip either side	Fail	
95% plus trees healthy	Pass	
	3/5 Moderate	

Urban trees

Figure 24 Approximate location and extent of these habitats.



Standard trees

50. Ten standard trees were recorded on Site comprising ash, sycamore, London plane, cherry, lime, plum, black locust and silver birch. Where trees were mapped as individuals these were noted to be small and not considered mature. The majority of trees are associated with the eastern Site boundary with others scattered throughout for amenity value. In the context of the condition scoring the trees on Site are considered to be of moderate condition. As with the linear trees, these were often associated with linear or green habitats and added natural structure to an area largely dominated by artificial structures. Individual trees have been assessed individually but summarised below, the majority of the trees passed and failed the same criteria resulting in a score of 4/6, save the black locust trees that scored a 3/6, failing native species criteria. In both cases these are in moderate condition.

Defra Metric Condition Assessment - Moderate

Urban trees (Including street trees)		
	Pass/Fail	Condition
>70% natives	Pass (black locust fail)	5-6 = Good 3-4 = Moderate 0-2 = Poor
Continuous canopy gaps <10%	Pass	
Mature or veteran tree or 50% of block is	Fail	
No pruning evidence	Pass	
Deadwood, cavities etc. for birds	Fail	
> 20% canopy oversailing vegetation	Pass	
4/6 Moderate		

DEFRA Metric (Baseline)¹

51. The metrics below outline the baseline of the Site from the full metric –the full metric is provided separately to the report and should be read in conjunction with this report.

Project Name: Map Reference:		Area habitat summary											
A-1 On-Site Habitat Baseline		Total Net Unit Change	-10.92									Total Net % Change	-55.26%
Condense / Show Columns		Condense / Show Rows		Trading Rules Satisfied									No - check trading summaries ▲
Main Menu													

Ref	Existing area habitats				Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline Total habitat units	
	Broad Habitat	Habitat Type	Irreplaceable habitat	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier			
1	Grassland	Modified grassland	No	0.0699	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.14	
2	Grassland	Other neutral grassland	No	1.7015	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	13.61	
3	Heathland and shrub	Bramble scrub	No	0.0046	Medium	4	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	0.02	
4	Heathland and shrub	Mixed scrub	No	0.3696	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	1.48	
5	Urban	Developed land, sealed surface	No	1.2236	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Compensation Not Required	0.00	
6	Urban	Introduced shrub	No	0.0307	Low	2	Condition Assessment N/A	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	0.06	
7	Urban	Vacant or derelict land	No	0.6143	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness or better habitat required ≥	1.23	
8	Individual trees	Urban tree	No	0.4029	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same broad habitat or a higher distinctiveness habitat required (≥)	3.22	
9														
10														
11														
12														
13														
				Total habitat area										4.42
				Site Area (Excluding area of individual trees, green walls, intertidal hard structures)										4.01

¹ Our report provides an estimate of the sites value in Biodiversity Units. This is based on thorough assessment at the time of survey and using the information available at this time. In this assessment we have used the latest version of DEFRA's Biodiversity Metric Tool, the UK Habitats Classification and relevant guidance at the time of project commencement. This assessment requires subjective judgments to be made in terms of habitat type and condition and could be open to other interpretations. Reliance on the Unit Score, or conversion of this into a monetary value, would be at the developer's own risk. Where conversion to monetary value is required, it is always advisable to get calculations checked independently.

Project Name: B-1 On-Site Hedge Baseline		Map Reference:		Hedgerow summary							
Condense / Show Columns				Condense / Show Rows				Total Net Unit Change: 1.68			
Main Menu								Total Net % Change: 60.90%			
								Trading Rules Satisfied: Yes ✓			

Ref	Hedge number	Existing hedgerow habitats		Distinctiveness		Condition		Strategic significance			Required Action to Meet Trading Rules	Ecological baseline Total hedgerow units
		Habitat type	Length (km)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic significance multiplier		
1	H1	Non-native and ornamental hedgerow	0.015	V.Low	1	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.02
2	H2	Non-native and ornamental hedgerow	0.146	V.Low	1	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.15
3	LT1	Line of trees	0.181	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.72
4	LT2	Line of trees	0.02	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.04
5	LT3	Line of trees	0.038	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.08
6	LT4	Line of trees	0.362	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	1.45
7	LT5	Line of trees	0.058	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.23
8	LT6	Line of trees	0.021	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	Same distinctiveness band or better	0.08
9												
10												
11												
12												
13												
			0.84									2.77

Faunal Appraisal

52. The following pages discuss only the groups and species that could be reasonably expected to be found on the type of habitats present on, or adjacent to, the Site.

Amphibians

Desk evidence

53. A total of 81 amphibian records were returned within 2km of the Site. The closest record was of a common frog, 0.46km south of the Site from 2009. One record of great crested newt was returned from 1.4km south-west of the Site from 2009, associated with a garden pond.

Field Evidence

54. No significant ponds are present on Site or within 0.25km of the Site. Aerial imagery was used to search for large garden ponds, with none found; however smaller garden ponds would not be visible from aerial and have been omitted.
55. Suitable terrestrial habitat for amphibians on Site is limited to the large area of grassland to the south (G3 as shown in Figure 9). However, there are very limited opportunities on Site for amphibians, largely due to the expanse of open hardstanding and buildings. Due to the dense urban nature of the locality and lack of waterbodies, it is unlikely that amphibians and GCN are present on Site or within the immediate vicinity.

Summary Evaluation

56. The likely absence of great crested newt is assumed due to the lack of suitable waterbodies within 0.25km of the Site and limited terrestrial habitat on Site and in the locality.

Further Surveys and Recommendations

57. No further surveys or precautions are considered necessary.

Bats

Desk evidence

58. A total of 120 bat records were returned from a 2km radius. A number of these were quite dated and no longer considered relevant to the application. The closest record of a roost was of an unidentified pipistrelle species, associated with a property adjacent to the eastern boundary from 2002. However, this detailed that a number of bats were found dead in the cellar and further roost information was not provided. The next closest common pipistrelle roost 650m to the west from 2015.

Field Evidence (Roosting)

59. Twelve structures were identified on Site and their locations shown in Figure 25 overleaf. These have been assessed for potential roost features (PRF's) and are summarised Table 3 below. All buildings were uninhabited at the time of survey, many subject to high levels of vandalism and damage. All buildings were assumed to have been left unheated for many years and the impact this has on roosting viability has been taken into account in the assessments overleaf. No internal access to Buildings 1, 2, 3 and 4 was available due to health and safety concerns.
60. During the updated survey in 2024 building B6 was noted to have been subject to significant fire damage, the description has been updated to reflect this in Table 3 below. This building was previously considered to have low potential to support roosting bats, with features noted comprising lifted tiles, access below boarded windows and broken windows permitting flighted access for internal roosting. Following the damage and loss of the entire roof, none of these features are present, with internal areas and the top of the wall fully exposed to the elements.
61. Scattered and linear trees were found throughout the Site and were subject to checks for PRF's. Only two trees were found to have features deemed to have suitability to support roosting bats.

Table 3 Bat Roost Suitability Assessment of Buildings and Trees

Ref:	Structure description	PRF's	Bat Roosting Suitability
B1	A three-storey listed building with a main hipped roof centrally orientated large gables to the northern and southern elevations; rooved in traditional clay tiles, with dormers and smaller roof structures to the chimneys. The main ridge is unusually fully lined by lead flashing, with clay hip tiles to the hip ridges. Ornate timber features are present to the verges and eaves on each storey. The upper story is clad in pebbledash, with red brick to the ground floor. Windows and doors are fitted with traditional timber frames and lintels. The presence of dormers and skylights implies only limited loft space is likely present.	Slipped and lifted tiles around chimney flashings. Lifted and missing hip tiles, allowing access to hip ridge void. Hanging tiles to Chimney roof structures. Occasional lifted cladding to upper story. Broken and open windows allowing for flighted access for internal roosting.	High
B2	A three-storey listed red-brick building of similar construction to B1. The roofes are all dressed in slate tiles include an L shaped gable end section to the north, with an additional perpendicular gable to the western end. An additional gabled roof is present to the south-western corner of the structure, separated from the other areas by a series of flat roof areas and a glass conservatory structure. A further single story, flat roofed extension is present to the western elevation. As with B1, ornate timber features were present to all eaves and verges. Two large bay windows with lead roofes are present to the northern elevation.	Multiple slipped tiles throughout and localised section of multiple slipped tiles allowing flighted access to lofts. Gaps present to verges. Chimneys with occasional gaps and cracks between brickwork. Potential access for bats in non-standard air bricks. Gaps below timber eaves features. Gaps below the lead roof to the bay windows.	High
B3	A two-storey red brick building connected to Buildings 2 and 4 by a flat, felt lined roofed overhang, supported by ornate columns, protruding ornamental rafters are present to the eaves of the hipped roof, tiled in modern interlocking clay tiles.	Gaps below ridge tiles. Occasional slipped tiles, but likely lacking suitable crevice below. Lifted felt to single story roof.	Low
B4	A three storey, listed, red-brick building of a similar structure to B1 and B2. This occupies an approximate rectangular footprint, with second storey wings to the north and south. The first storey has a flat roof with parapets, with the upper storeys supporting slate tiled, hipped roofes, with an ornamental gable to the centre. A small wooden and lead belfry structure is present to the approximate centre and a small wooden, flat roofed structure is also present to first floor flat roof portion. A modern mono-pitch felt lined extension is present to the south-western corner, with a wooden framed conservatory feature. As with B1 and B2, ornate timber features are present to the eaves and verges forming a soffit box to the western elevation. Wooden framed windows and doors were present throughout with multiple broken windows.	Missing and slipped tiles throughout, including around belfry base and a larger area to western elevation potentially providing flighted access internally. Missing hip tiles, providing access to hip ridge void. Open access to ridge tiles where present. Lifted lead flashing to the ridges and gaps in the lead. Occasional gaps and cracks in brickwork. Lifted felt to the small wooden structure. Broken and open windows allowing for flighted access for internal roosting, including in the conservatory feature. Bell tower with open vents and bat potential.	High
B5	A complex of interconnected buildings, with multiple single storey and two storey sections, all roofed and lined in felt. Wooden soffit boxes to multiple sections. Generally, of modern construction incorporating both brick, blockwork and preformed panel sections. There are large expanses of modern PVC framed, double-glazed windows throughout, noted to be in good condition. Large sections of the buildings, including multiple two-storey portions are clad in both horizontal timber and hanging tiles. Underground boiler room to south-eastern corner, partially flooded with a door left open. No features noted internally and conditions largely bright and exposed damp. Finally, a large chimney is associated with the boiler room with all brickwork in good condition.	Soffit boxes in poor condition. All cladding (both tiles and timber) in poor condition with regular missing tiles and lifted boards creating a number of opportunities for crevice dwelling. Multiple broken windows allowing for flighted access for internal roosting.	High
B6	A modern red brick single storey building with hipped roof and modern interlocking clay tiles. Building was found to be subject to substantial fire damage during the January 2024 update survey	Substantial fire damage to roofing. Open to outside weather conditions.	Negligible

	and the majority of the roof is now missing or collapsed, leaving the building open at the top. All interiors are now exposed to outside conditions.		
B7	A modern construction sports hall with red brick to the lower half of walls and steel profile panels to the upper. Rooved in a steel, with uplifted panels to the eaves. Single door to the eastern elevation fitted with vents but sealed with mesh on the inside in good condition.	No PRF's identified.	Negligible
B8	A pebble dashed, single storey building with a hipped roof, supporting modern clay tiles. Hip tiles open at the verge end and with missing mortar around individual tiles. Wooden soffit boxes present tot all elevations in poor condition. Modern PVC framed, double glazed windows, with occasional windows boarded over.	Occasional slipped tiles. Missing mortar and open ends of hip ridge tiles allow fo access to the hip ridge void. Wooden soffit boxes in poor condition.	Moderate
B9	A small single storey red brick building, with a flat roof lined in felt. Wooden soffit boards present to all elevations and in poor condition. Dense ivy present to the southern and western elevations. .	Soffit boxes in poor condition allowing for access to soffit void. Crevice dwelling opportunities below ivy.	Low
B10	A modern construction single-storey building formed in pre-fabricated steel panels and occasional redbrick. Modern PVC framed, double glazed windows. Rooved in a gently sloping profiled steel.	No PRF's identified.	Negligible
B11	A flat, single storey building rooved in asbestos panels, with walls clad in timber slats and clay hanging tiles.	Frequent missing and broken hanging tiles and timber cladding.	Low
T1	A mature horse chestnut with a hollow limb sheltered from the rain. Several areas of lifted bark and splits in limbs.	A sizable void in the missing limb protected from darr conditions Extensive lifted bark creating crevice dwelling opportunities.	Moderate
T2	A mature false acacia with a western facing hollow limb and areas of lifted bark.	A small void in the missing limb protected from da conditions Some areas lifted bark creating crevice dwelling opportunities.	Low

Field Evidence (foraging and commuting)

62. Commuting and foraging habitat for bats is likely limited to the lines of trees which border the Site and areas of grassland and mixed scrub. Due to the urbanised nature of the local landscape, the Site is likely only used by small numbers of more light tolerant species such as pipistrelle species.

Summary Evaluation

- 63. Records of potential roosting bats are present very close to the Site, increasing the likelihood of roosting bats being present on Site.
- 64. Opportunities for roosting bats are present within ten structures and two trees on Site.
- 65. Opportunities for foraging and commuting bats are present on Site in the form of the lines of trees, grassland and areas of scrub.

Further Surveys and Recommendations

- 66. In line with best practice guidelines (Bat Conservation Trust, 2016), further surveys were carried out to establish if potential roost features are being used by bats in the 2023 bat survey season. This has been fully reported on separately in a dedicated report which must be read in conjunction with this report. Mitigation in relation to roosting is outlined in the dedicated report.
- 67. A lighting strategy will be required to minimise impacts to foraging and commuting bats.

Figure 26 Building plan.



Bat Roost Suitability Assessment

Northern elevation of B1



B3 eastern elevation



Cracks in wooden slats and hole in hanging tiles of B5



Southern elevation of B1



B4 eastern elevation



Southern elevation of B5 with large hole



Northern elevation of B2



B4 western elevation with smashed windows and belfry



Entrance to B5 underground boiler room



B2 connected to B3 by pantheon style roof



B5 slipped tiles hanging tiles also western elevation



B5 underground boiler room



Western elevation of B7



Northern elevation of B7



Eastern elevation of B8



Northern elevation of B8



Eastern elevation of B9



B9 flighted access



Northern elevation of B10 with cover



Southern elevation of B11



Eastern elevation of B12



Southern elevation of B12 with slipped hanging tiles



Tree T2



Eastern elevation of B6 following fire damage



Birds

Desk Evidence

68. The majority of bird records from within a 2km radius were not considered relevant to the Site, due to the highly urbanised locality. Of relevant species, local knowledge indicated that swift and house sparrow are present and nesting in the locality.

Field Evidence

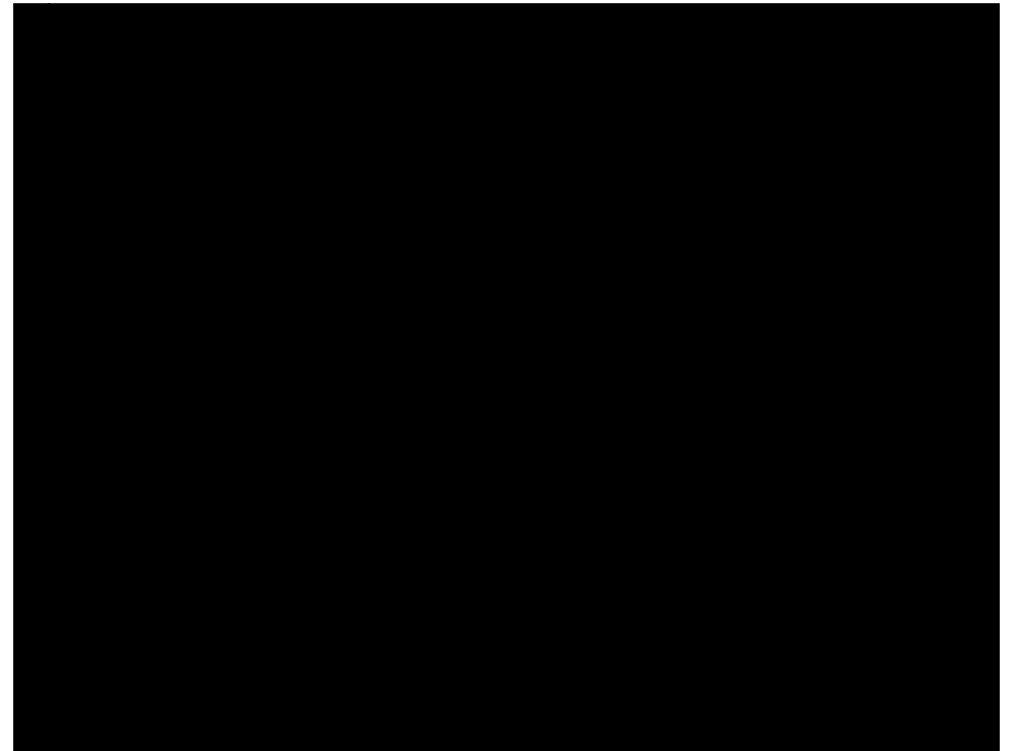
69. The lines of trees, scrub, introduced shrub and scattered trees offer suitable nesting and foraging habitat for a range of bird species. The large area of grassland within the southern aspect of the Site is potentially suitable for ground nesting bird species; however, nesting is considered unlikely as these species do not tend to use urbanised habitats.
70. The buildings of the Site have suitability to support nesting of urban birds, including swifts and house martin. Where windows are broken or open and the buildings deserted, this is likely to facilitate nesting in internal areas.

Summary Evaluation

71. The grassland provides foraging habitat for common bird species. The trees, scrub, introduced shrub and scattered trees will likely provide both foraging and nesting habitat for a variety of species. Buildings on Site are likely to support nesting birds associated with urban environments.

Further Surveys and Recommendations

72. No further surveys are considered necessary to demonstrate current baseline in respect of birds.
73. Standard precautions apply in respect of restrictions on clearing vegetation and demolishing buildings with relation to nesting birds.



Notable mammals

Desk evidence

79. A total of 82 records for hedgehog were returned within 2km, with the closest 22m west of Site from 2021, associated with the road that runs parallel to the western Site boundary. Other records were returned from a 2km radius of brown hare and polecat, but these were a sizeable distance from the Site and not considered relevant due to the urban nature of the Site.

Field Evidence

80. Several mammal paths were identified running through the mixed scrub around the grassland in the south of the Site, of a suitable size for use by foxes, hedgehogs and rabbits. A small number of rabbit holes were also found within the grassland.
81. The areas of grassland throughout the Site provide suitable foraging, habitat for hedgehog, with sheltering and commuting habitats present throughout the scrub habitats. No signs of hedgehog were noted, but this is not considered to be indicative of absence.

Summary Evaluation

82. Based on the large number and close vicinity of records in the locality and suitable habitat on Site, hedgehogs are considered likely present on Site.

Further Surveys and Recommendations

83. Presence assumed no further surveys are considered necessary.
84. Post-work connectivity features for hedgehogs will be required.

Reptiles

Desk evidence

85. A total of 39 records of reptiles were returned within a 2km radius of the Site, the majority of which were of grass snake, the closest of which was recorded 0.6km south-west of the Site, associated with a Devon Park LWS in 2020. A single record was returned for adder in 2006, 1.4km south-east of the Site associated with a residential garden.

Field Evidence

86. The areas of grassland on Site are largely unmanaged and could offer foraging and commuting habitat for reptiles, with the associated line of trees and mixed scrub offering sheltering and hibernation habitat. However, the urbanised nature of the local landscape and large expanse of hardstanding limits connectivity and the Site is unlikely to support reptiles.

Summary Evaluation

87. Due to poor connectivity and limited opportunities on Site for reptiles' likely absence can be assumed.

Further Surveys and Recommendations

88. No further surveys or precautions are considered necessary.

Invasive Non-Native Species (INNS)

89. INNS are species listed on Schedule 9 of the Wildlife and Countryside Act (1981), for which it is an offence to cause or allow it to grow in the wild.

90. The following invasive species were noted²:

- Black locust
- Cotoneaster species
- Rhododendron

91. Additionally, tree of heaven and buddleja were found on Site, both species of concern but omitted from Schedule 9. Both these species spread very easily, and it is recommended that where possible these species be included in any future management strategies.

Survey constraints

92. This survey is highly constrained by the significant areas that were inaccessible due to the density of vegetation.

93. While some INNS have been identified in this preliminary survey it is not always possible to conclude full range of species present or their true extent due to factors such as season, accessibility, 3rd party attempts to hide evidence or undisclosed treatment programmes. For this reason, this report should not be relied upon as definitive evidence of the status of INNS.

94. This Site presents a medium risk of supporting undetected INNS based on the following factors:

- Areas of Site inaccessible to survey
- Suboptimal survey season
- Proximity to nearby potential sources of infection
- Potential for tipping of material

95. Should further assurances be needed in relations to INNS, a dedicated Invasive Weed Survey should be commissioned.

Figure 27 Black locust stands within the southern aspect of G3.



² Whilst our ecologists are trained in the identification of invasive species this report is not a dedicated invasive species survey. Detectability of invasive plant species can be affected by several factors, and conclusive determination status, or extent, is not

possible through preliminary survey alone. As the presence of invasive species can generate significant costs to development, the client may wish to instruct a dedicated invasive species survey prior to entering into contracts.

Ecological Impact and Constraints

Habitats

96. Due to the urban nature of the Site, low ecological value of the habitats and limited suitability to support protected species (outside of bats assessed separately in a dedicated report) the ecological impacts of the proposals are considered to be minimal outside of the context of a biodiversity net gain assessment.
97. The plan opposite shows the Site in the context of mapped habitat distinctiveness with the aim of informing the design of a layout. It shows that there are no habitats of higher distinctiveness, which would need to be avoided by the proposals. The Site is fairly uniform in terms of potential impacts, with areas of grassland and scrub offering habitat of greatest distinctiveness. Habitats do not impose any particular design constraints. Biodiversity net gain implications have been discussed overleaf.
98. The lines of trees (LT1 and LT4) that bound the Site to the north, west and south and the ornamental hedgerow (H2) to the east will be retained, protected and enhanced through the development. These should be preserved from light pollution for bat commuting. Measures to protect roots from construction and operation includes the implementation of root protection zones and fencing during construction. These habitats should remain outside the land ownership of any residential properties to ensure they are protected post development.

Faunal constraints

99. The proposals outline the loss of the majority of buildings on Site, with listed buildings 1, 2 and 4 being retained and modified to support apartments. A dedicated report presents the findings and mitigation following emergence/ re-entry surveys carried out in

the summer of 2023. A sensitive lighting strategy will be required to demonstrate maintained habitat for foraging and commuting bats.

100. Nesting bird opportunities are present in of the mixed scrub, introduced shrubs, trees and the buildings. Where these habitats will be impacted or removed through the proposed development, this must be undertaken to avoid impacts on nesting birds.

Figure 28 Distinctiveness of habitats.



Ecological Opportunities

101. Most LPAs now require developments to demonstrate a 'no net loss' in biodiversity, or in some cases a 10% net gain. The Site has been assessed as having a Biodiversity Metric score of 19.76 Habitat Units and 2.77 Hedgerow units. Biodiversity Net Gain Assessment is discussed in detail in a dedicated section overleaf.

102. Ecological opportunities exist to increase the condition of existing green infrastructure and create new linear paths through the Site. The line of trees to the north and west (LT1 and LT4) and associated scrub habitats are to be retained and protected through works. Invasive species are present throughout the scrub and can be removed and replaced with native species to improve the condition score. The ornamental hedgerow (H2) to the east can be thinned out and native species planted to improve condition, species diversity and opportunities for wildlife. Additional new hedgerows and lines of trees are outlined throughout the proposals to improve green connections.

103. Proposed areas of grassland and gardens to be seeded with flowering lawn mixes comprising mow-tolerant species such as selfheal. This would provide attractive, valuable and easily maintained habitat. Wherever possible, open public space grassland to comprise retained and enhanced grassland already present on Site, particularly to the southern boundary.

104. These enhancements will aid in off-setting biodiversity loss, however additional off-setting off-site will be required. It is recommended that this is secured through a local initiative to contribute biodiversity gain to local areas of value to ecology.

105. Installing roosting or nesting features (outside of those legally required for bat roost mitigation) on new buildings will be beneficial to wildlife. These should be targeted towards areas where semi-natural habitats are to be retained such as the line of trees along the western boundary. Walls and fences must

be fitted at the base with permanent holes, 15cm by 15cm, to support hedgehog commuting and passage through the Site.

106. Invasive species were identified on Site and an invasive species management plan is recommended to detail the removal and control of these species through the proposals.

107. A suitable Biodiversity Management Plan would be useful in defining these enhancements and can be secured by standard condition.

Figure 29 Ecological Opportunities.



Outline Biodiversity Net Gain (BNG) Implications

108. The NPPF and most aligned local policies require that development achieves a 'no net loss' or unquantified 'net gain' situation for biodiversity. The Environment Bill now mandates a 10% net gain position, although there is a two-year grace period before this mandate becomes enforced nationally (January 2024).

109. BNG Implications at this Site have been calculated below, based on proposed plans. This is based on calculation from the plan provided and on outline landscape detail as agreed. Specifically, that areas of open space grassland to be either retained and enhanced existing grassland or sowed with species rich native mix and sensitively managed to comprise other neutral grassland of moderate condition. New linear features of lines of trees and hedgerows are to comprise native species only, with hedgerows to comprise a minimum average of five native species per 30m and to reach moderate condition. Retained habitats, particularly the mature trees, are to be safeguarded through establishing root protection zones. A small stretch of the southern boundary trees are to be enhanced to native hedgerow with trees, which again must comprise planting of a minimum average of five native hedgerow shrub species and managed to achieve moderate condition. These target habitats and conditions are to be defined by a Biodiversity Management Plan.

110. Based on the above the below table summarises the BNG assessment results based on the post-development habitat mapping as shown in Appendix 2. Further detailed on the attached BNG calculation sheet.

Table 4 BNG outline calculations

	Pre-development Baseline Units	Post Development Units	Units still required to achieve No Net Loss	Units still required to achieve 10 Net Gain
Habitat units	19.76	8.84	10.92	12.90
Linear units	2.77	4.45	0	0

111. Any further net loss in biodiversity is to be compensated for, through offsetting off-Site. It is recommended that this be delivered through contribution to local habitat creation and management projects.

Conclusions and Recommendations

Planning considerations		
Recommendation	Rationale	When
R1 Additional Surveys	Bat emergence and re-entry surveys of all buildings of the Site. The results and recommendations of these survey have been presented in a dedicated report. The recommendations made in this report must be implemented in conjunction with the recommendations made in the dedicated bat report.	Completed in active season 2023.
R2 Produce a CEMP (Biodiversity)	To show how the Site will be built without affecting surrounding habitats and minimising risk of affecting protected or notable fauna. The CEMP will detail the following protection measures: Location of Biodiversity Protection zones and fences Location of hedgehog corridor holes in garden fences. Dealing with known invasive species Pre- or during- clearance ecology checks for protected species. Protected/notable species method statements where licensing is not needed. Nesting bird management	Delivery report Suitable for planning condition.
R3 Produce a Biodiversity Management Plan	To specify in detail how the development will cater for biodiversity on Site and to show how habitats incorporated through the Biodiversity Net Gain Strategy be maintained in the condition that the Biodiversity Calculations were based on.	Delivery report Suitable for planning condition.

References

Andrews H. L. (2011) A habitat key for the assessment of potential bat roost features in trees.

Bat Conservation Trust (2016) Bat Surveys For Professional Ecologists – Good Practice Guidelines.

BSI (2013) British Standards Institute BS:42020:2013 Biodiversity —Code of Practice for Planning and Development.

CIEEM (2016) . Biodiversity Net Gain: Good Practice Principles for Development. Available at <https://cieem.net/wp-content/uploads/2019/02/Biodiversity-Net-Gain-Principles.pdf>

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal.

CIEEM (2019). Biodiversity Net Gain: Good Practice Principles for Development, A Practical Guide. Available at <https://cieem.net/wp-content/uploads/2019/02/C776a-Biodiversity-net-gain.-Good-practice-principles-for-development.-A-practical-guide-web.pdf>

DEFRA (2023) Statutory Biodiversity Metric User Guide. Published November 2023. available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

English Nature (2004) *Bat Mitigation Guidelines*. English Nature, Peterborough.

English Nature (2001) *Great Crested Newt Mitigation Guidelines*. http://www.naturalengland.org.uk/Images/GreatCrestedNewts_tcm6-21705.pdf.

Fay N. (2007) *Defining and Surveying Veteran and Ancient Trees* <https://www.treeworks.co.uk/about-treework/publications>.

Gent T and Gibson S, 2003, *Herpetofauna Workers' Manual*, JNCC.

Gov UK (2023) Statutory Biodiversity Metric Calculation Tool and Habitat Condition Assessment Sheets available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>

Hill et al. 2005, Handbook of Biodiversity Methods. Cambridge.

JNCC (2004) *The Bat Workers Manual*. 3rd Edition.

Ministry of Housing, Communities and Local Government (July 2018) *National Planning Policy Framework*.

Natural England (2023) Biodiversity Metric Supporting Documents/Tools Including Data/GIS Templates. Available at: <https://publications.naturalengland.org.uk/publication/6049804846366720>

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10(4), 143-155. Ratcliffe, D.A. (1977) A Nature Conservation Review, Cambridge University Press.

UK Habitats (2018) The UK Habitat Classification Habitat Definitions Version 1.0 UK Habitat Classification Working Group.

Appendix 1 Habitats and Ecological Features



- Site Boundary
 - g4 - modified grassland
 - g3c - other neutral grassland
 - h3d - bramble scrub
 - h3h - mixed scrub
 - uc1f - introduced shrub
 - 351 - vacant derelict ground bare ground
 - u1b - developed land, sealed surface
 - Hedge Ornamental Non Native
 - Line of Trees
 - Trees With Bat Potential
- Secondary Habitat
- Artificial educational sports pitches
 - Ruderal/ ephemeral

Project: Land at former Lilley and Stone School, London Road,
Newark-on-Trent, Nottinghamshire
Title: Extended Phase 1 Plan

Drawing Number: BBE 00113-01
Date: 9th January 2024
Revision: -



Unit 8, Second Floor
Holmes Mill
Clitheroe
Lancashire
BB7 1EB
T: 01200 446777

Appendix 2 Post-development habitat mapping



- Site Boundary
- g3c - other neutral grassland
- h3h - mixed scrub
- 231 - vegetated garden
- u1b - developed land, sealed surface
- Native Hedgerow with trees
- Native Hedgerow
- Line of Trees
- Urban Trees

Project: Land at former Lilley and Stone School, London Road,
Newark-on-Trent, Nottinghamshire
Title: Post-Development Plan

Drawing Number: BOW_1498
Date: 9th January 2024
Revision: -



Unit 8, Second Floor
Holmes Mill
Clitheroe
Lancashire
BB7 1EB
T: 01200 446777

Appendix 3 List of species recorded

Common Name	Scientific Name
Apple	<i>Malus domestica</i>
Ash	<i>Fraxinus excelsior</i>
Barren brome	<i>Bromus strelitziae</i>
Bird cherry	<i>Prunus padus</i>
Black locust tree	<i>Robinia pseudoacacia</i>
Bramble	<i>Rubus fruticosus</i>
Butterfly bush/buddleia	<i>Buddleia davidii</i>
Canadian fleabane	<i>Erigeron canadensis</i>
Cherry laurel	<i>Prunus laurocerasus</i>
Clematis	<i>Clematis sp.</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common alder	<i>Alnus glutinosa</i>
Common broom	<i>Cytisus scoparius</i>
Common ivy	<i>Hedera helix</i>
Common lime	<i>Tilia x europaea</i>
Cotoneaster	<i>Cotoneaster sp.</i>
Cow parsley	<i>Anthriscus sylvestris</i>
Creeping bent	<i>Agrostis stolonifera</i>
Creeping thistle	<i>Cirsium arvense</i>
Dandelion	<i>Taraxacum officinale agg.</i>
Dove's-foot cranesbill	<i>Geranium molle</i>
Elm	<i>Ulmus sp.</i>
False oat grass	<i>Arrhenatherum elatius</i>
Green alkanet	<i>Pentaglottis sempervirens</i>
Groundsel	<i>Senecio vulgaris</i>
Hawbit	<i>Leontodon sp.</i>
Hawthorn	<i>Crataegus monogyna</i>

Herb robert	<i>Geranium robertianum</i>
Holly	<i>Ilex aquifolium</i>
Horse chestnut	<i>Aesculus hippocastanum</i>
Ladys bedstraw	<i>Galium verum</i>
Leyland cypress	<i>Cupressus x leylandii</i>
London plane	<i>Platanus x hispanica</i>
Nettle	<i>Urtica dioica</i>
Oak	<i>Quercus sp.</i>
Oregon grape	<i>Mahonia aquifolium</i>
Ornamental rose species	<i>Rosa sp.</i>
Perennial rye grass	<i>Lolium perenne</i>
Pine	<i>Pinus sp.</i>
Plum	<i>Prunus cerasifera</i>
Poplar	<i>Populus sp.</i>
Red fescue	<i>Festuca rubra agg.</i>
Rhododendron	<i>Rhododendron ponticum</i>
Ribwort plantain	<i>Plantago lanceolata</i>
Silver birch	<i>Betula pendula</i>
Silver maple	<i>Acer saccharinum</i>
Sycamore	<i>Acer pseudoplatanus</i>
Timothy grass	<i>Phleum pratense</i>
Tree of heaven	<i>Ailanthus altissima</i>
Variegated holly	<i>Ilex sp.</i>
Whitebeam	<i>Sorbus aria</i>
Wild cherry	<i>Prunus avium</i>
Yarrow	<i>Achillea millefolium</i>
Yew	<i>Taxus baccata</i>
Yorkshire fog	<i>Holcus lanatus</i>

Appendix 4 Explanatory Notes and Resources Used

Site Context

Aerial photographs published on commonly used websites were studied to place the Site in its wider context and to look for ecological features that would not be evident on the ground during the walkover survey. This approach can be very useful in determining if a site is potentially a key part of a wider wildlife corridor or an important node of habitat in an otherwise ecologically poor landscape. It can also identify potentially important faunal habitat (in particular ponds) which could have a bearing on the ecology of the application Site. Ponds may sometimes not be apparent on aerial photographs so we also refer to close detailed maps that identify all ponds issues and drains.

Designated Sites

A search of the MAGIC (Multi-Agency Geographic Information for the Countryside) website was undertaken. The MAGIC site is a Geographical Information System that contains all statutory (e.g. Sites of Special Scientific Interest [SSSI's]) as well as many non-statutory listed habitats (e.g. ancient woodlands and grassland inventory sites). It is a valuable tool when considering the relationship of a potential development site with nearby important habitats. In addition, information from the local record holders was referred to on locally designated sites.

Functional linkage with off-Site habitats

When assessing these we consider whether the Site could be functionally linked to them, considering links such as:

Hydrological links - is the Site upstream downstream, or could ground water issues affect it?

Physical links - is the Site in close proximity and could it be directly or indirectly affected by construction and operational effects? Conversely it may be that despite proximity major barriers separate the two.

Recreational links - do footpaths and roads make it likely that increased recreational pressure could be felt?

Habitat links - is the Site part of a network of similar habitat types in the wider area? These could be joined by linear corridors or could simply be 'stepping stones' of habitat of similar form or function.

Method

Phase 1 habitat survey methodology (JNCC, 2010). This involves walking the Site, mapping and describing different habitats (for example: woodland, grassland, scrub). The survey method was "Extended" in that evidence of fauna and faunal habitat was also recorded (for example droppings, tracks or specialist habitat such as ponds for breeding amphibians). This modified approach to the Phase 1 survey is in accordance with the approach recommended by the Guidelines for Baseline Ecological Assessment (IEA, 1995) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017).

Faunal Appraisal

This section first looks at the types of habitat found on Site or within the sphere of influence of potential development, then considers whether these could support protected, scarce or NERC Act 2006 Section 41 species (referred to collectively as 'notable species').

Records of notable species supplied from a 2km area of search by Nottinghamshire Biological and Geological Record Centre are used to inform this appraisal.

We discuss further only notable species or groups which could be a potential constraint due to the presence of suitable habitat and their presence (or potential presence) in the wider area. We screen out and do not present accounts of notable species or groups which do not meet these criteria –in some cases it may be necessary to explain this reasoning.

Consideration is given to the Local Biodiversity Action Plan (LBAP), which for this Site is the 'Nottinghamshire Biodiversity Action Group'

Priority Species	Priority Habitats
Black poplar - <i>Populus nigra</i>	Hedgerows: Including ancient and/or species-rich hedgerows
Deptford pink - <i>Dianthus armeria</i>	Mixed ash-dominated woodland
Nottingham autumn crocus - <i>Crocus nudiflorus</i>	Oak-birch woodland
Nottingham spring crocus – <i>C. vernus</i>	Parkland and wood pasture
Dingy skipper - <i>Erynnis tages</i>	Planted coniferous woodland
Green hairstreak - <i>Callophrys rubi</i>	Wet broadleaved woodland
Hazel pot beetle - <i>Cryptocephalus coryli</i>	Canals
White-clawed crayfish - <i>Austropotamobius pallipes</i>	Ditches
Atlantic salmon - <i>Salmo salar</i>	Eutrophic and Mesotrophic standing waters
Barn owl - <i>Tyto alba</i>	Fens, marshes and swamps
All bats	Reedbed
Dormouse - <i>Muscardinus</i> sp.	Rivers and streams
Harvest mouse - <i>Apodemus sylvaticus</i>	Farmland: arable farmland, arable field margins and improved grassland
Hedgehog - <i>Erinaceus europaeus</i>	Lowland calcareous grassland
Nightjar - <i>Caprimulgus europaeus</i>	Lowland dry acid grassland
Otter – <i>Lutra lutra</i>	Lowland heathland
Slow worm - <i>Anguis fragilis</i>	Lowland neutral grassland
Water vole - <i>Arvicola amphibius</i>	Lowland wet grassland
Willow tit - <i>Poecile montanus</i>	Urban and post-industrial habitats

Bats

Bat roosting potential is classified according to the following criteria set out below, taken from the Bat Conservation Trust Good Practice Guidelines (2016).

Bat Roosting Suitability of Buildings and Trees

Suitability	Criteria
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions, and/or suitable surrounding habitat to be used on a regular basis or by a larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A structure or tree with one or more potential roost sites that could be used due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only - the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protections, conditions and surrounding habitats.

Evaluation

In evaluating the Site, the ecologist will take into account a number of factors in combination, such as:

- the baseline presented above,
- the Site's position in the local landscape,
- its current management and
- its size, rarity or threats to its integrity.

There are a number of tools available to aid this consideration, including established frameworks such as Ratcliffe Criteria or concepts such as Favourable Conservation Status. Also of help is reference to Biodiversity Action Plans in the form of the Local BAP and Section 41 of the NERC Act (2006) to determine if the Site supports any Priority habitats or presents any opportunities in this respect.

The assessment of impacts considers the generic development proposals from which potential effects include:

- Vegetation and habitat removal
- Direct effects on significant faunal groups or protected species
- Effects on adjacent habitats or species such as disturbance, pollution and severance
- Operation effects on wildlife such as noise and light disturbance

Appendix 5 Bat Activity Survey Rationale

The Bat Conservation Trust Guidelines (BCTG) (Collins 2016) is now widely accepted as providing a basis and rationale for scoping and conducting bat surveys. It is acknowledged that the guidelines provide a wealth of background and are a very useful tool in standardising approaches to survey, it is also felt that an over reliance on some of the guidelines within this document can result in the provision of complicated surveys where they have significant consequences for the cost, or timescale of a large project, but could never deliver positives for bat conservation.

Taking the BCTG document as a whole, Chapter 2 helps the reader understand whether or not surveys are required, and that in the context of planning and development survey is required in relation to ensure;

the avoidance of legal offences, and;

the provision of a sufficient level of information - such that will allow the Local Planning Authority to make an informed decision on the proposals and their potential impacts on the Favourable Conservation Status (FCS) of bats.

Attendance at seminars presented by, and discussions with, those involved in production of the BCTG document has emphasised the point that it is within the remit of the consultant ecologist to make a decision on the necessity and scope of surveys - they will use the guidelines in doing so but are not in any way bound by them: this is reflected in Section 1.1 of the guidelines -

‘The Guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. However, in this scenario an ecologist should provide documentary evidence of (a) their expertise in making this judgement and (b) the ecological rationale behind the judgement. ‘

Such decisions require a consideration of the potential of the project to impact on bat habitat, alongside analysis of the value of habitat on and around the Site and of local records and the likelihood that bats might occur in significant numbers. Our reports aim to present information on how we have arrived at our decision on the Site, what assumptions we have based this on, and where further survey is recommended, we indicate what the objective of this survey should be and how best this would be achieved.

This assessment was made by Alex Robinson BSc (Hons) MSc ACIEEM. Alex is registered to use the Class Survey Licence CL17 (Level 1) 2020-48867-CLS-CLS.

Appendix 6 Wildlife Legislation, Policy and Guidance

This is not an exhaustive list but sets out briefly the relevance of Legislation, Policy and Guidance in terms of planning applications and this assessment.

Legislation

Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (EC Habitats Directive).

Provides framework at an international (EU) level for the consideration / protection of European Protected Species (EPS), and habitats through the designation of sites.

Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive) and The Ramsar Convention on Wetlands of International Importance (1971) Provides framework at an international (EU) level for the consideration / protection of important bird populations and the sites on which they are dependant.

The Conservation of Habitats and Species Regulations (2010)

This transposes 1) into UK law and provides the basis on which all EPS are protected and impacts on them can be licensed in the UK.

The Wildlife and Countryside Act (1981) as amended

This provides the basis on which UK species are legally protected or restricted and confers protection on Sites of Special Scientific Interest SSSIs. It contains annexes of plants and animals which are legally protected as well as those which are considered to be invasive or harmful. It provides the basis on which impacts on such species can be licensed in the UK and provides controls on work on or near SSSIs.

The Countryside and Rights of Way Act 2000 (CRoW)

Provides a statutory basis for nature conservation, strengthens the protection of SSSIs and UK protected species and requires the consideration of habitats and species listed on the UK and Local Biodiversity Action Plans (UKBAP / LBAP).

Natural Environment and Rural Communities Act 2006 (NERC)

Sets out the responsibilities of Local Authorities in conserving biodiversity. Section 41 of the Act requires the publishing of lists of habitats and species which are "of principal importance for the purpose of conserving biodiversity". At present these largely reflect those making up the UKBAP lists.

Hedgerows Regulations (1997)

Define and provide protection for Important Hedgerows.



Protected Sites

Statutory EU / International Protected Sites

Special Areas of Conservation (SACs); and Special Protection Areas (SPAs) and Ramsar Sites contain examples of some of the most important natural ecosystems in Europe. Work on or near these sites is strictly protected and Local Authorities will be expected to carry out 'Appropriate Assessment' of development in proximity of them. In this case there is often an increased burden on the developer in relation to provision of information and assessment.

Statutory UK Protected Sites

Local Nature Reserves (LNRs); National Nature Reserves (NNRs); Sites of Special Scientific Interest (SSSIs) all receive strict protection under UK legislation. Work in or in proximity to these sites would be restricted with any needing to be agreed with Natural England. Natural England now provide guidance on the nature of development which could impact on SSSIs through Impact Risk Zones.

Locally Protected Sites

Local Authorities have a variety of protected wildlife sites designated at a local or regional level. These are gradually being brought under the banner of Local Wildlife Sites (LWS) but at present a plethora of different designations exist - all subject to local policy.

Protected Species

European Protected Species

A number of species (most relevantly bats, great crested newts [GCN], and otters) receive strict protection from killing, injury and disturbance under The Conservation of Habitats and Species Regulations (2010). Protection is also conferred on the habitats on which they rely such as roost space in the case of bats and ponds and fields etc. in the case of GCN.

UK Protected Species

A number of species (including bats, GCN, watervole and white clawed crayfish) are strictly protected under The Wildlife and Countryside Act (1981) as amended, from killing, injury, disturbance and damage or destruction of their resting places etc. Certain species (such as reptiles) and some birds (such as barn owl) receive partial protection e.g. at certain times of the year or from certain activities only. All nesting bird species are protected from damage or destruction of their nests - whilst active.

Invasive species

Schedule 9 of the Wildlife and Countryside Act (1981) as amended, lists these species and makes it an offence to cause or allow their spread in the wild. This often has impacts on development and planning in relation to the presence of invasive plant species such as: himalayan balsam (*Impatiens glandulifera*), japanese knotweed (*Fallopia japonica*) and giant hogweed (*Heracleum mantegazzianum*).

Planning Policy / Guidance

The National Planning Policy Framework (NPPF):

The National Planning Policy Framework was updated in July 2021. The most relevant paragraphs from the NPPF are set out below.

The approach to assessing the natural environment is now embedded within the definition of what 'sustainable development' is and this falls under one of three objectives of the planning system –the 'environmental objective' applying in this case. Paragraph 8c (P8c) of the NPPF states that sustainable development should “*protect and enhance our natural, built and historic environment*”, including “*improving biodiversity*”. P10 sets out the Framework’s presumption in favour of sustainable development.

Section 11 of the NPPF details making effective use of land. The Framework states that planning policies and decisions should “*take opportunities to achieve net environmental gains – such as developments that would enable new habitat creation*” and should “*recognise that some undeveloped land can perform many functions, such as for wildlife*” (P120).

Section 15 details conserving and enhancing the natural environment; policies and decisions should be “protecting and enhancing valued landscape [and] sites of biodiversity [.].value”, “recognise the intrinsic character and beauty of the countryside” and contribute to conserving and enhancing the natural environment and reducing pollution (P174). Allocations of land for development should, “allocate land with the least environmental or amenity value, where consistent with other policies in this Framework” and “take a strategic approach to maintaining and enhancing networks of habitats” (P175).

The Framework sets out ways to minimise the impacts on biodiversity through plans which “identify, map and safeguard components of local wildlife rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity” and 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” (P179).

It is made clear in P180 that local planning authorities should apply a set of principles when determining planning applications. Planning permission should be refused “*if significant harm to biodiversity resulting from development cannot be avoided [.], adequately mitigated, or, as a last resort, compensated for*”. Development should not normally be permitted where an adverse effect on a SSSI is likely, and “*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*”.

Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services.

This strategy builds on the Natural Environment White Paper (June 2011) - Setting out the current UK Government's approach to nature conservation. It promotes a more coherent and inclusive approach to conservation and the valuing in economic and social terms of economic resources.

The strategy promotes initiatives such as Biodiversity Offsetting, Nature Improvement Areas and a focus on well-connected natural networks and introduces the concept of securing a 'no net loss' situation with regard to UKBAP / Section 41 habitats and species.

ODPM circular 06/05 (2005) Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System Provides guidance to Local Authorities on their obligations to biodiversity –particularly in relation to assessing planning applications and ensuring the adequacy of information.

BSI (2013) British Standards Institute BS 42020:2013 Biodiversity—Code of Practice for Planning and Development.

Provides a standard for the biodiversity assessment and development industries and decision makers such as Local Planning Authorities to work to.