

Atom Valley Innovation Centre, Kingsway Business Park, Plot R2

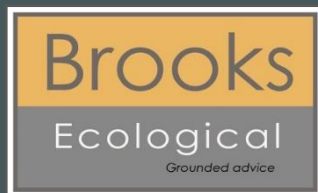


Preliminary Ecological Appraisal Report

Report Ref. ER-6649-01

23/04/2024

DLA Architecture



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Summary

This report is produced to inform DLA Architecture of potential ecological constraints associated with their proposed development site and the need for further reporting or output to support a planning application.

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 March 2023.

Key Findings

The Site is comprised of long since disused pasture which through a lack of management has become tussocky, overgrown, and is slowly succeeding to rush and scrub cover. Other than the baseline habitat unit value of the Site, described in the biodiversity net gain reports ecological constraints have not been identified at the Site.

Biodiversity Net Gain

Details on measurement of the Site's biodiversity and the implications of complying with the requirement to provide a net gain for biodiversity are provided in our separate report ER-6649-02.

Further surveys

Further surveys have not been recommended.

Introduction

1. Brooks Ecological Ltd was commissioned by DLA Architecture to carry out a Preliminary Ecological Appraisal (PEA) of land at Atom Valley Innovation Centre, Kingsway Business Park, Plot R2, grid ref. SD918126. The survey includes land within the red line boundary shown in Figure 1 opposite.
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 separately 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. This process is set out separately in the Biodiversity Gain Report which accompanies this PEAR.

Proposals/Reason for PEA

6. The PEA has been commissioned to inform proposals to develop this small Site for light industrial or commercial development.

The Site

7. The application site 'the Site' comprises a small plot of disused pasture which has been unmanaged since being earmarked for development several years ago.
8. For the purposes of metric calculations, the Site area has been measured using GIS against the provided red line boundary as 1.04 Ha.

Figure 1 The Site (red line boundary).



Desk Study

Landscape

9. The Site is located on the northern edge of Kingsway Business Park. To the north a tram stop and line, sit between the Site and suburban housing. To the east, west and south similar additional undeveloped and unmanaged plots associated with the business park are found. Further south Stanney Brook Corridor a locally designated 'Site of Biological Interest' separates the Site from large commercially developed plots of the business park.
10. In the wider local area the Site is flanked by suburban residential and commercial development associated with Rochdale and Milnrow. Eventually this gives way north and eastwards to more open, primarily pastoral, countryside.

Wildlife Corridors

11. Stanney Brook Corridor is the most obvious wildlife corridor locally and was designed as mitigation for the wider business park development. It is c.70m south west of the Site at its nearest point, with Michael Faraday Avenue situated in between, though this has been designed with a substantial bridge which will facilitate wildlife movements beneath.
12. Stanney Brook intersects with the Rochdale Canal c. 300m west of the Site which will also facilitate the movements of some species locally.
13. The tram line along the northern boundary may also facilitate some wildlife movements though its function as corridor is likely to be limited due to sparse vegetation cover along it locally.

Figure 2 Analysis of wildlife corridors and structured habitat visible on mapping in relation to the Site.



Designations

14. 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.

Statutory Designations

15. 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
Rochdale Canal	c.300m west	Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI)	Aquatic flora including floating water plantain (Luronium natans).
South Pennine Moors Phase 2	c.3.8km east	Special Protection Area (SPA), SAC, SSSI	Supports Annex Habitats: European Dry Heaths, Blanket bog and old sessile oak woodlands with Ilex and Blechnum in the British Isles. Breeding populations of Annex 1 species Golder Plover and Merlin and the summer breeding assemblage of migratory birds.

16. Due to the specific interests of the nearby Rochdale Canal, the proposals would not be expected to have any impact, as they will not result in shading, or any changes in hydrology or water quality.
17. Direct and indirect impacts on the South Pennine Moors as a result of this development are unlikely due the scale do development and distance from the designated area.

SSSI Impact Risk Zones (IRZs)

18. The Site lies within the IRZ for the Rochdale Canal SSSI and may fall into the 'rural non residential' development category which requires the LPA to consult with Natural England in relation to potential impacts.

Non-Statutory Designations

19. There are 6 Sites of biological interest in the search area. Of these the Rochdale Canal and Stanney Brook Corridor are the nearest to the Site. However, it is anticipated impacts can be avoided on Rochdale Canal due to a lack of hydrological connections. It is also anticipated impacts can be avoided on Stanney Brook due to the intervening undeveloped areas acting as a buffer from development.
20. Direct and indirect impacts on all remaining sites as a result of this development are unlikely due to the Site's separation and distance.

Nature Improvement Area

21. The Site is not within any Nature Improvement Area.

Wildlife Habitat Network

22. The Site is not within any mapped Wildlife Habitat Network.

Granted EPSM Licences

23. A single granted European Protected Species Mitigation (EPSM) licence is shown within 1km of the Site. This being a great crested newt licence application dated from 2015-2017 centred c. 550m east of the Site.

Mapped Ancient Woodland

24. There is no mapped ancient woodland within 15m of the Site.

Survey

25. The survey was carried out during March 2024¹ and followed the principles of Extended Phase 1 Habitat Survey methodology (JNCC, 2010).
26. Although out of the main growing season, the nature of habitats present here, and the expertise and training of the surveyor meant that it was still possible to confidently classify the type and condition of habitats present on this Site.
27. Enough time was afforded the surveyor to carry out the survey. The survey was not constrained by poor weather.
28. Whilst the majority of the Site was accessible, around 1% of the Site had poor accessibility due to dense vegetation, which could not be closely inspected. This could have concealed invasive species or protected species evidence.

Habitat Appraisal

29. 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 UK Habitats v2.01 guidance in identifying habitats. Habitat descriptions are divided into the 'distinctiveness' categories used in the calculations presented in the Biodiversity Gain Assessment, with more weight being afforded the more distinctive/important habitats.
30. 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

31. 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 calculations, but mitigation or compensation is not required.

Low Distinctiveness Habitats

32. Habitats which are ubiquitous, often which have been created or modified intentionally. 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.

Medium Distinctiveness Habitats

33. 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

34. 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 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

35. These are the UK's 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.

Irreplaceable Habitats

36. These are habitats of high biodiversity value, which are so difficult to recreate that it would be impossible to achieve the requirement to increase biodiversity on top of no net loss. These habitats have significant protection in the NPPF; any impacts from development require a strong justification and will flag as unacceptable in the Biodiversity Metric. Bespoke compensation for any loss of these habitats must be agreed with the LPA.
37. Each habitat is mapped and an area for each type is provided in the format of the Statutory Biodiversity Metric 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.

¹ This Report has been prepared during April 2024 following a visit to the Site in March 2024, and our findings are based on the conditions of the Site that were reasonably visible and accessible at that date. We accept no liability for any areas that were not

reasonably visible or accessible, nor for any subsequent alteration, variation, or deviation from the Site conditions which affect the conclusions set out in this report.

Condition Assessment

38. Our condition assessment for each habitat described references where available the criteria set out in DEFRA (2023) Statutory Biodiversity Metric Condition Assessments. A completed version of this spreadsheet is provided digitally with the Biodiversity Gain Report which accompanies this report.

Habitats of Low/Very Low Distinctiveness

Figure 3 Approximate location and extent of these habitats.

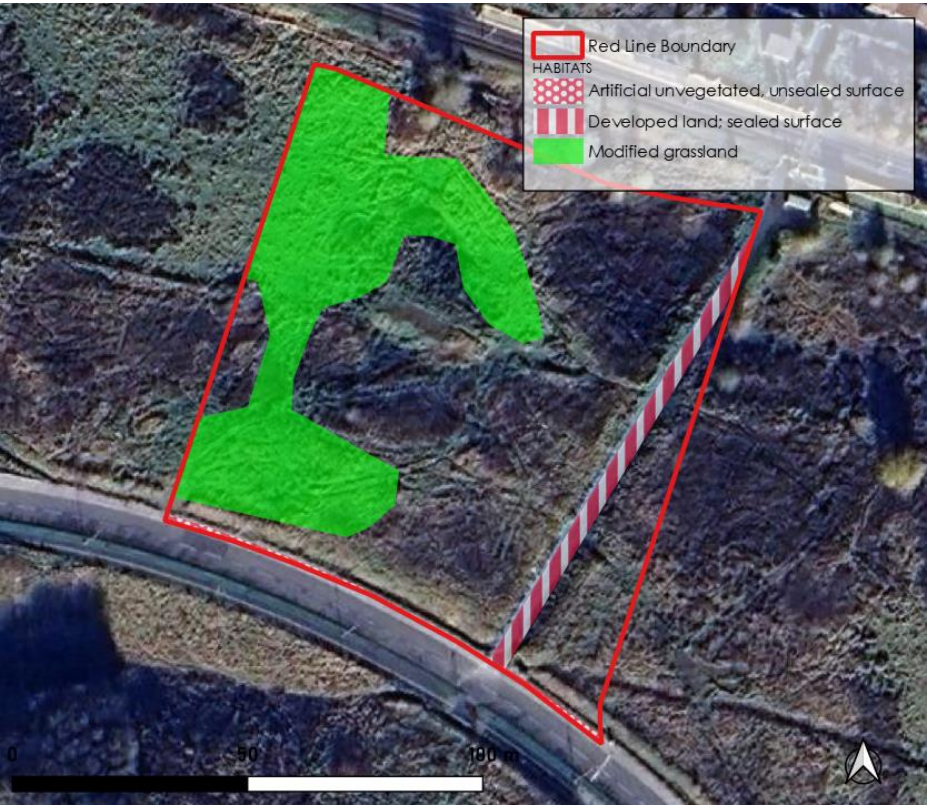


Table 2 Summary – Habitats of Low/Very Low Distinctiveness.

UK Habitats	Label Ref	Summary Description
Developed Land; Sealed Surface	-	Well maintained tarmac access track to the tram station.
Artificial Unvegetated; Unsealed Surface	-	Gravel associated with unfinished roadside pavement along the southern edge of the site.
Modified Grassland	-	On what is likely the most fertile disused areas of grassland creeping bent is dominant creating a dense thatch with only a few underlying tussocks of coarse grasses primarily cocksfoot with tufted hair grass and red fescue noted occasionally amongst others. Forb diversity is very limited but occasionally includes nettles amongst other common species. These areas have been separated from the other neutral grassland described overleaf as it is considered to reflect its nature and value more accurately, though it does form a natural ecotone with such areas and differences may not be as stark as represented on mapping.

Figure 4 Well used path through the site and gravel pavement.



Figure 5 Overgrown modified grassland to the west of the site



Habitats of Medium Distinctiveness

Figure 6 Approximate location and extent of these habitats.



Table 3 Summary of Medium Distinctiveness habitats.

UK Habitats	Label Ref	Summary Description
Other Neutral Grassland	-	Grassland has been unmanaged for many years and has developed a tussocky thatch layer in parts, though slightly more open than more modified areas described above. It is still mostly dominated by coarse competitive grass species and ubiquitous forb species. Creeping bent is abundant throughout with perennial rye grass, Yorkshire fog, red fescue and cocksfoot also frequently found and with tufted hair grass also locally abundant. False oat grass was recorded more rarely. Forbs have very limited cover overall but the most frequently found include nettle (locally abundant), creeping buttercup, common mouseear, ragwort, creeping thistle and small willowherbs. Other occasionally or rarely noted species included; blinks, broad leaved dock, angelica, sorrel, red clover, white clover, fox glove, ribwort plantain and cats ear amongst others. Soft rush is abundant and locally dominant, as such scattered areas have not been mapped separately as secondary habitat though rush dominated areas have been shown. Field wood rush and pendulous sedge were also observed more rarely. Some bramble scrub is establishing particularly to the north, with young goat willow and hawthorn saplings also noted in parts. Shallow ditches to the south have not been mapped separately as they are known to only briefly hold water in wet conditions and otherwise are dry for the vast majority of time.

Habitats of Medium Distinctiveness

Figure 7 Typical view of grassland



Figure 8 Scrub establishing to north



Figure 9 Typical grassland with young scrub and rushes



Figure 10 Rush dominated area in background



Figure 11 Shallow ditch along roadside



Figure 12 Old stone wall with colonising vegetation



Faunal Appraisal

39. 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.
40. Records have largely been gleaned from previous Brooks Ecological surveys of the surrounding business park as well as notable records from previous local record searches and report produced for other development plots.

Amphibians

Desk evidence

41. A record of great crested newt (GCN) is known from Universal Works c.600m east of the Site in 2013. This is separated from the Site by roads, development and Stanney Brook.
42. Five absence records have been returned for ponds at Bellfield Fishing Club over 500m north of the Site and separated by development.
43. Brooks Ecological sampled three ponds (P1-3), all located just east of the Site of which returned negative results in June 2022, indicating an absence of GCN. Pond 4 (P4) has been deemed unsuitable for GCN due to the proximity to Stanney Brook, the pond being designed as a SUDS basin, and likely high abundance of predatory fish.

Field Evidence

44. Terrestrial habitat is suitable to support amphibians but is unlikely to be of particularly high value.

Summary Evaluation

45. Common amphibians will likely make use of the site but are unlikely to be reliant upon it.
46. A likely absence of GCN has been reasonably concluded based on recent eDNA testing and a general lack of records locally.

Further Surveys and Recommendations

47. No further surveys or precautions are considered necessary.

Figure 13 Ponds within 250m mapped in relation to the Site.



Bats

Desk evidence

48. Records of common, soprano and more occasionally nathusius, noctule, brown long eared and daubenton's bats are known. The nearest roost record is from common pipistrelle c. 600m east of the site and dated 2013.

Field Evidence (Roosting)

49. There are no buildings on Site.
50. Trees have been inspected for roost suitability but are too young and small to support any suitable features.

Field Evidence (foraging and commuting)

51. The Site is unlikely to contribute much to local foraging resources and will suffer from light pollution from the adjacent metrolink stop.
52. The tram line may act as a corridor for bats locally but this is likely to be limited to disturbance resistant species tolerant of light pollution.

Summary Evaluation

53. The Site's size and location suggest that it will not be important to this group.

Further Surveys and Recommendations

Further surveys are not recommended. There may be opportunities to provide new roost sites in buildings at the Site.

Birds

Desk Evidence

54. The schedule 1 species little ringed plover has previously been sighted around ponds to the east of the Site. Species such as meadow pipit and reed bunting have also been recorded and observed locally.

Field Evidence

55. The Site is lacking features which are likely to be attractive to Little Ringed Plover.
56. Grassland and rush areas may prove attractive to reed bunting and meadow pipit though these are disturbed by walkers along the nearby path and local dog walkers.

Summary Evaluation

57. The disturbed and somewhat featureless nature of the Site suggest it is unlikely to be high value to this group.
58. Despite Ringed Plover being observed locally the Site supports poor habitat for this species. However, if the site is cleared of vegetation and left undeveloped there is ongoing potential for this bird to colonise.

Further Surveys and Recommendations

59. No further surveys are considered necessary to demonstrate current baseline in respect of birds.
60. Measures should be in place to check for Little Ringed Plover before development if the site is cleared and not immediately developed.
61. Standard precautions apply in respect of restrictions on clearing vegetation during the nesting season.

Badgers

62. The details concerning badgers are considered sensitive and have been intentionally withheld from publicly accessible documents. A comprehensive report has been submitted directly, under separate cover, to the local authority planning department for their consideration in relation to this application.

Hedgehogs

Desk evidence

63. Hedgehogs are recorded within the search area.

Field Evidence

64. No evidence of hedgehogs was found on site.

Summary Evaluation

65. The Site provides suitable habitat for this species and measures to allow them access through the Site should be planned for.

Further Surveys and Recommendations

66. Presence assumed; no further surveys are considered necessary.

Water Vole

Desk evidence

67. Water Vole have been historically recorded within Stanney Brook and Sudden Brook, further still from the Site. Water vole were recorded in Stanney Brook up until 2018 by Brooks Ecological.
68. However, water vole have not been found since then and mink were observed within the brook which are known to cause local extirpations of water vole. Similarly recent surveys within the Sudden Brook area in 2023 have also observed an absence of Water Vole.

Field Evidence

69. The shallow dry ditches on Site are unsuitable for water vole and are not connected to Stanney Brook.

Summary Evaluation

70. The likely absence of water vole from the Site can be concluded.

Further Surveys and Recommendations

71. Further surveys are not recommended.

Invertebrates

Desk evidence

72. The wider Kingsway site has supported mudsnail (*Omphiscola glabra*) in several seasonal ponds. Suitable ponds are generally considered to be those with good levels of sediment and leaf litter, which dry regularly.
73. Survey were undertaken of ponds 1-3 in 2022 by Brooks Ecological which did not reveal the presence therein.

Field Evidence

74. Suitable habitat is not present within the survey area.

Summary Evaluation

75. An absence of mudsnail from the Site is concluded.

Further Surveys and Recommendations

76. Further surveys or precautions are not recommended.

Invasive Non-Native Species (INNS)

77. 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.

78. No INNS were noted during survey².

Survey constraints

79. This survey is constrained by the presence of areas that were inaccessible due to the density of vegetation.

80. Although no INNS have been identified in this preliminary survey, it is not always possible to conclude absence from preliminary survey alone due to factors such as season, accessibility, third-party attempts to hide evidence, or undisclosed treatment programmes. For this reason, this report should not be relied upon as definitive evidence of absence of INNS.

81. This site presents a small risk of supporting undetected INNS based on the following factors:

- Areas of site inaccessible to survey
- Potential for recent earthworks or management which may have obscured viable material
- Proximity to nearby potential sources of infection
- Potential for tipping of material

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

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 Constraints

Habitat Value

83. The usual approach to development is to minimise any net loss of biodiversity towards a gain in biodiversity value where this is possible on-Site. Our separate report on Biodiversity Gain sets out the position of the Site in terms of measured biodiversity.
84. Irrespective of the Biodiversity Gain process, development should still seek to retain what is best about the Site.
85. The plan opposite shows the Site in the context of mapped habitat distinctiveness (as assessed at the time of the survey*) with the aim of informing the design of any layout. It shows that there are no targets of higher distinctiveness or irreplaceable habitat which would need to be avoided by the proposals. The site supports areas of lower distinctiveness grassland to west but given the layout it is unlikely that any avoidance of relatively higher value areas can be avoided.
86. Habitats do not impose any particular design constraints. Loss of habitat of this nature are not of the order which (outside of Biodiversity Net Gain) would require specific mitigation or compensation as they are common locally.
87. Light spill should be minimised on the tram line to assist it functioning as corridor for nocturnal animals.

**This represents our assessment of the habitat type and condition at the time of survey. This may change if the survey was carried out in sub-optimal season or growing conditions. Where this is the case, we will recommend updating surveys during the optimal season.*

Faunal constraints

88. Faunal constraints have not been identified.

Figure 14 Distinctiveness of habitat.



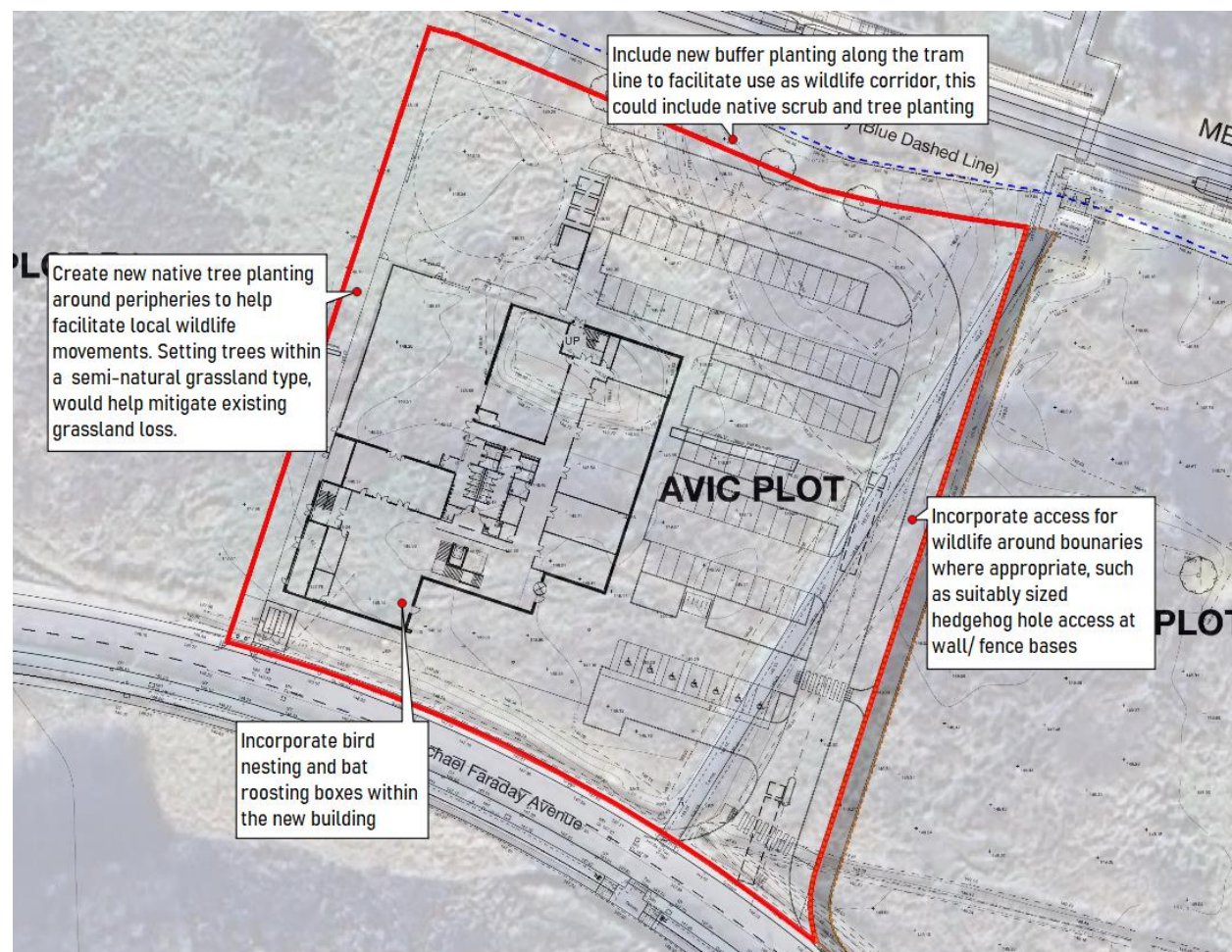
Ecological Opportunities

89. Ecological opportunities at the Site relate to:

- Strengthening the potential for the tram line to function as habitat corridor would be beneficial via the inclusion of semi natural landscaping along the northern edge, such as native tree and scrub planting.
- Potential to improve connectivity around the site such as along the streetside and tram footpath with new native tree planting.
- Incorporating semi-natural type grasslands where possible will help mitigate the loss of existing grassland
- Where boundary fences or walls are proposed these should be made permeable to wildlife where possible via the inclusion of suitable holes at ground level.
- Installing roosting or nesting features on new buildings.

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

Figure 15 Ecological Opportunities.



Conclusions and Recommendations

Planning considerations		
Recommendation	Rationale	When
R1 Additional Surveys		
R1.1 Vegetation	None recommended	n/a
R1.2 Fauna	None recommended	n/a
R2 Produce a layout which minimises loss of biodiversity	Engage with the Constraints and Opportunities set out above, involve your ecologist in designs at an early stage. The proposals will need to consider the NPPF hierarchy of Avoid–Mitigate–Compensate in minimising any loss of biodiversity. Biodiversity Net Gain (BNG) policy mandates a minimum 10% Net Gain in Biodiversity Units, and the LPA may request additional gains. Your layout may need to change to accommodate your findings from R1 surveys.	During the design process
R3 Design	Make sure your design team follows ecological advice to and make sure there are no design conflicts. <u>Produce a habitat retention plan at an early stage</u> - which can be used to inform BNG and maximise scores. A habitat retention plan should identify areas which can be excluded from any impacts of clearance and construction. In producing a plan you should consider the need to provide (amongst other things) Site compounds, to store and move materials, to install drainage, flood storage, access and services - all with suitable easements.	During the design process
R4 Biodiversity Net Gain (BNG)	Carry out a BNG Assessment using the Statutory Biodiversity Metric Calculation Tool and accompanying Condition sheets produced by Defra. It is important that the baseline survey is undertaken during the appropriate season for the habitat type being assessed, so as to ensure the accuracy of habitat mapping and calculating condition scores. Where an initial survey is undertaken at a sub-optimal time of year, it is recommended that updating surveys be carried out during the optimal season for that habitat, prior to the BNG assessment being finalised. Failure to do this could mean that the final Biodiversity score calculated for a project is incorrect, which could then impact on any financial contribution that has been budgeted for to address Biodiversity Offsetting.	During the design process. Baseline survey to be completed during the appropriate season.
R5 Produce a Biodiversity Management Plan	To specify in detail how the development will cater for biodiversity on-Site and to show how habitats incorporated will be managed.	Delivery report Suitable for planning condition

Other considerations (managing legal or financial risks)		
Issue	Rationale	When
R6 Nesting bird management	As with most sites, the standard precaution in relation to birds would apply. To prevent the proposed works impacting on nesting birds, any clearance of vegetation will need to be undertaken outside of the breeding bird season, which runs from 1st March–31st August inclusive. Any clearance required during the breeding bird season should be preceded by a nesting bird survey to ensure that the law is not contravened through the destruction of nests and that any active nests are identified and adequately protected during the construction phase of the development.	Prior to and during clearance
R7 Pre-construction ecology checks	It is always advisable to check that protected species, e.g., badger or Little Ring Plover in this instance have not colonised or become visible in the period between the date of this report and construction activities commencing.	Prior to site preparation or archaeological/geotechnical investigations.

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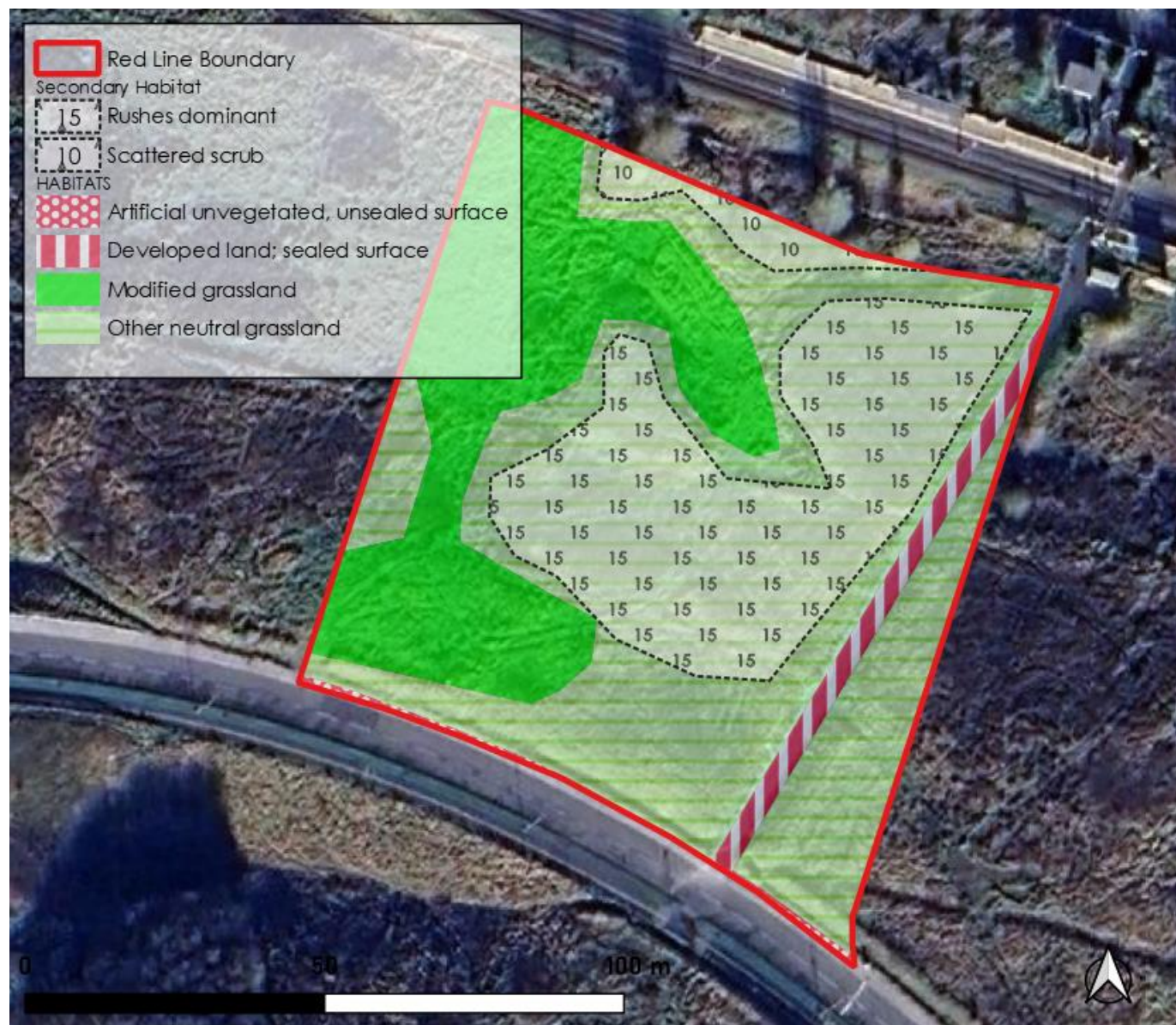
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Appendix 1 Habitats and Ecological Features



Appendix 2 List of species recorded

Common bent	<i>Agrostis capillaris</i>	Meadow buttercup	<i>Ranunculus acris</i>
Creeping bent	<i>Agrostis stolonifera</i>	Sorrel	<i>Rumex acetosa</i>
Meadow foxtail	<i>Alopecurus pratensis</i>	Meadow grass	<i>Poa sp.</i>
Angelica	<i>Angelica sylvestris</i>	Creeping buttercup	<i>Ranunculus repens</i>
Sweet vernal grass	<i>Anthoxanthum odoratum</i>	Bramble	<i>Rubus fruticosus</i>
Bittercresses	<i>Cardamine spp.</i>	Broad leaved dock	<i>Rumex obtusifolius</i>
Common mouse-ear	<i>Cerastium fontanum</i>	Dandelion	<i>Taraxacum officinale agg.</i>
Rosebay willowherb	<i>Chamerion angustifolium</i>	Goat willow	<i>Salix caprea</i>
Creeping thistle	<i>Cirsium arvense</i>	Red clover	<i>Trifolium pratense</i>
Hawthorn	<i>Crataegus monogyna</i>	White clover	<i>Trifolium repens</i>
Crested dogtail	<i>Cynosurus cristatus</i>	Coltsfoot	<i>Tussilago farfara</i>
Cock's-foot	<i>Dactylis glomerata</i>	Nettle	<i>Urtica dioica</i>
Tufted hair grass	<i>Deschampsia cespitosa</i>	Yarrow	<i>Achillea millefolium</i>
Foxglove	<i>Digitalis purpurea</i>	Bush vetch	<i>Vicia sepium</i>
Willowherb	<i>Epilobium sp.</i>		
Red fescue	<i>Festuca rubra agg.</i>		
Pendulous sedge	<i>Carex pendula</i>		
Yorkshire fog	<i>Holcus lanatus</i>		
Catsear	<i>Hypochaeris radicata</i>		
Common ragwort	<i>Jacobaea vulgaris</i>		
Teasel	<i>Dipsacus fullonum</i>		
Soft rush	<i>Juncus effusus</i>		
Wood Avens	<i>Geum urbanum</i>		
Horsetail	<i>Equisetum sp.</i>		
Perennial rye grass	<i>Lolium perenne</i>		
Field wood-rush	<i>Luzula campestris</i>		
Dove's-foot cranesbill	<i>Geranium molle</i>		
Ribwort plantain	<i>Plantago lanceolata</i>		
Meadow vetchling	<i>Lathyrus pratensis</i>		
Selfheal	<i>Prunella vulgaris</i>		
Bracken	<i>Pteridium aquilinum</i>		

Appendix 3 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 [SSSIs]) 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 Greater Manchester Ecology Unit 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 'Greater Manchester Biodiversity Action Plan'.

Species/group	Habitat
Bats	Grasslands
Black redstart	Hedgerows
Farmland birds	Lowland mosslands
Great crested newts	Reedbeds and bittern
Hares	Ponds and lodges
Native black popular	Canals
Twite	Native woodlands
Water vole	Uplands
Willow tit	Urban managed greenspace

Bats

Bat roosting potential is classified according to the following criteria set out below, taken from the Bat Conservation Trust Good Practice Guidelines (2023).

Bat Roosting Suitability of Buildings

Suitability	Criteria
<i>None</i>	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).
<i>Negligible</i>	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
<i>Low</i>	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats).
<i>Moderate</i>	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation - the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
<i>High</i>	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.

Bat Roosting Suitability of Trees

Suitability	Criteria
<i>None</i>	Either no PRFs in the tree, or highly unlikely to be any.
<i>FAR</i>	Further assessment required to establish if PRFs are present within the tree.
<i>PRF</i>	A tree with at least one PRF present.

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 4 Bat Activity Survey Rationale

The Bat Conservation Trust Guidelines (BCTG) (Collins 2023) 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.

The Site is small, not strategically located, well-lit by the adjacent tram stop and does not contain any potential key habitat features for bats, its use by this group can be easily predicted making any requirement for additional survey disproportionate.

This assessment has been made by Joshua Birchall BSc (Hons) MCIEEM. Josh has over 9 years of professional bat survey experience, is a member of the South Lancashire Bat Group and is also registered to use the Class Survey Licence CL17 (Level 1).

Appendix 5 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 the EC Habitats Directive 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.

Protection of Badgers Act (1992)

Protects badgers from persecution, this includes excavation/development in the proximity of setts.

Protected SitesStatutory 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 SpeciesEuropean 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, water vole 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 speciesSchedule 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 (*Reynoutria japonica*), and giant hogweed (*Heracleum mantegazzianum*).

Planning Policy/Guidance

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework was updated in December 2023. 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" (P124).

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 (P180). 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" (P181).

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" (P185).

It is made clear in P186 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".

UK Biodiversity Indicators 2023: update to Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services

The UK Biodiversity Indicators 2023 provide updates to the indicators set out in Biodiversity 2020 including new species abundance targets as set out in the Environment Act 2021. Biodiversity 2020 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.