

Preliminary Ecological Appraisal Report
Phase 3, Princess Road, Manchester

Bruntwood Ltd.

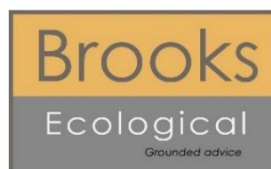
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REPORT CONTAINS SENSITIVE INFORMATION ON BADGERS – DO NOT PLACE IN THE PUBLIC DOMAIN

Report Title:	Preliminary Ecological Appraisal Report Phase 3, Princess Road, Manchester
Report Reference:	ER-5143-01
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Summary

This report is produced to inform Bruntwood Ltd. Ltd of potential ecological constraints associated with a proposed development site.

Methodology

The 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 November 2020.

Findings - Key Points (include all these points)

- The Site is considered to be of limited ecological value.
- Further species-specific surveys have not been recommended in support of a planning application.
- The Site has been assessed as having an Ecological Baseline score of 1.68 Habitat Units and 0.31 Hedgerow Units.
- The baseline score is low and provided ecology is considered from an early stage there may be the opportunity to achieve a net gain on-site or via enhancement of immediately adjacent areas
- Given the Site's simple nature, an Ecological Impacts Assessment (EclA) is not recommended however a Biodiversity Net Gain Assessment report will be required to demonstrate net gain results. A suitable Biodiversity Management Plan is also recommended.

Introduction

1. Brooks Ecological Ltd was commissioned by Bruntwood Ltd. to carry out a Preliminary Ecological Appraisal (PEA) of land at Phase 3, Princess Road, Manchester.
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.
3. In anticipation of the adoption of DEFRA's Biodiversity Metric 2.0 we have used the UK Habitat Classification descriptions rather than the long established JNCC codes. These habitat classifications and 'the metric' are work in progress and could be subject to future change.

Purpose of a PEA

4. 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.
5. 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.
6. 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.
7. 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

8. The application site 'the Site' is currently occupied by a mixture of amenity space and car parking.
9. 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 boundary - red line



Desk Study

Landscape context

10. The Site is located c. 5km south of Manchester City Centre adjacent to one of the main arterial roads, which flanks the western boundary. To the north and south are large commercial/ medical facilities whilst housing abuts the eastern boundary.
11. The Site appears likely, based on surrounding recent developments, to be located on long-since cleared development plot and the underlying geology is unlikely to be consequential to the site due to human disturbance and management.

Wildlife Corridors

12. The Site does not occupy any key location as part of a habitat corridor, though given its open nature it may act as a lower value 'stepping stone' between better local sites for some common faunal groups such as garden birds.
13. The River Mersey with associated amenity and semi-natural habitats will likely act as corridor for some species. This flows roughly east to west through the area c. 300m south of the site.
14. Chorlton Water Park c. 1km west of the site provides some relatively higher value, semi-natural, wetland habitat. The mature tree collection associated with Southern Cemetery is also likely to be of elevated ecological value.

Figure 2 Analysis of wildlife corridors and higher value habitat in relation to the Site



Designated 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.
16. There are no internationally designated sites within 10km. The results of nationally designated sites are shown in the below table.

Table 1 Statutory Designated Sites.

Site Name	Distance from Site	Designation	Summary Interest
Chorlton Water Park	940m west	Local Nature Reserve (LNR)	Mixture of wetland, woodland and grassland centred on a disused gravel pit. Supports nationally important assemblage of wildfowl.
Stenner Woods and Millgate Fields	c. 2km south east	LNR	Wet woodland dominated by Crack Willow supporting standing water year round. Abundance of invertebrates and associated woodland birds.

17. Impacts upon the above sites would not be expected due to a lack of shared habitats and functional linkage.

SSSI Impact Risk Zones (IRZs)

18. The Site is not located within a SSSI impact risk zone.

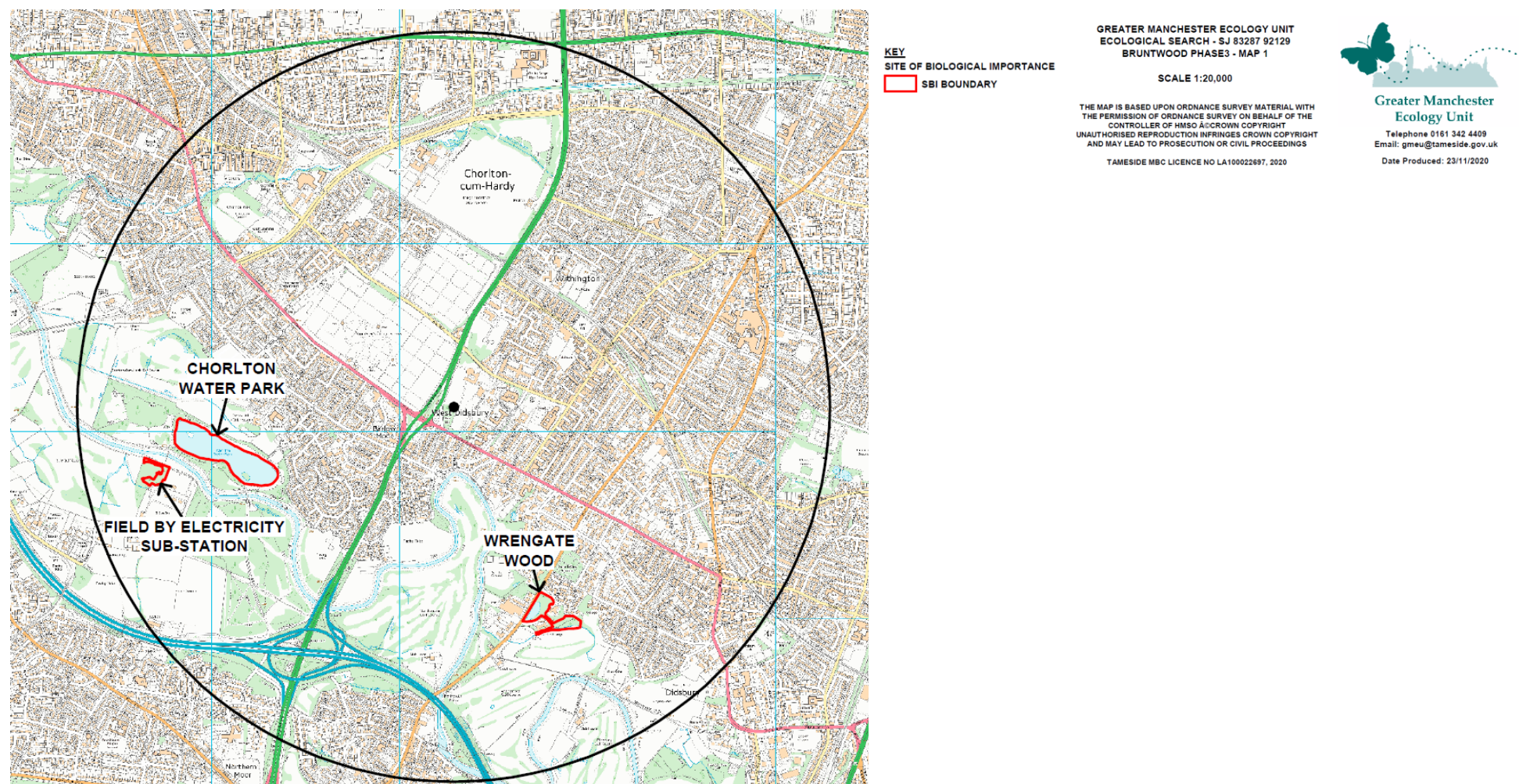
Non-Statutory Designations

19. There are three locally designated 'Sites of Biological Importance' (SBI) in the search area, the nearest of these being Chorlton Water Park as described above. The others are 'Wrengate Wood' and 'Field by Electrical Substation', as shown overleaf.
20. Due to separation from and lack of functional links with the Site, impacts would not be expected on any of the SBIs.

Granted EPSM Licenses

21. Three granted licenses show up within 1km of the Site. These are all for bat roosts - common pipistrelle, soprano pipistrelle or both species, the nearest being 500m east to the site.

Figure 3 Locally designated sites within 2km provided by GMEU.



Survey

Method

22. The survey was carried out during November 2020¹ and followed the principles of Extended Phase 1 Habitat Survey methodology (JNCC, 2010).

Limitations

23. Enough time was afforded the surveyor to carry out the survey. The survey was not constrained by poor weather.
24. The majority of the Site was accessible however it is well managed which could have concealed invasive species or protected species evidence.

¹ This Report has been prepared during November 2020 following a visit to the site in November 2020 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.

Habitat Appraisal

Habitats identified

25. The Site supports of the following habitats:
- Developed land; Sealed Surface
 - Amenity Grass
 - Ornamental Shrub
 - Ornamental Hedge
 - Trees
26. Each habitat is discussed in the following pages and the estimated area of these listed². 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

27. Our condition assessment for each habitat described references where available the criteria set out in The Biodiversity Metric 2.0 Auditing And Accounting For Biodiversity Technical Supplement Beta Edition.

Habitats Summary Evaluation

28. The habitats are ascribed our own qualitative value, based on their plant community make up. This evaluation is independent of faunal value which is considered in later sections.

Faunal Appraisal

29. The faunal section discusses 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.

² The location and areas of habitats in this report are estimated and should not be relied on as a definite location and extent of any habitat or feature.

U1b Developed Land, Sealed Surface

Area estimate: 0.886 ha

Figure 4 Approximate location and extent of habitat



30. Well maintained hardstanding, primarily car parking but also covering a large new commercial building and footpaths. This habitat covers the majority of the Site.

Summary Evaluation

31. The building and parking areas appear to have been recently developed, lacking any notable vegetation cover and highly unlikely to support any scarce or notable species.
32. Overall, this habitat is considered to be of practically no ecological value.

Figure 5 Typical structure and composition of this habitat



Defra Metric Condition Assessment N/A

33. There is no condition assessment within the technical supplement. It is automatically assigned a score of 0.

310 Amenity Grass

Area estimate: 0.704 ha

Figure 6 Approximate location and extent of habitat



34. Well maintained lawns occupy a significant area of the site. These are subject to regular maintenance supporting a limited number of common grasses and forbs tolerant of regular mowing. Grasses dominate the sward including perennial ryegrass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), meadow grass (*Poa pratensis*) and red fescue (*Festuca rubra* agg.). Forbs are occasional noted and include dandelion (*Taraxacum* agg.), creeping buttercup (*Ranunculus repens*), ragwort (*Senecio jacobaea*), dove's foot crane's-bill (*Geranium mollis*), white clover (*Trifolium repens*), yarrow (*Achillea millefolium*), greater plantain (*Plantago major*), ribwort plantain (*Plantago lanceolata*), ox-eye daisy (*Leucanthemum vulgare*) and daisy (*Bellis perennis*). The common moss *Kindbergia praealunga* also occurs frequently amongst the sward.

Summary Evaluation

- 35. The area appears rigorously maintained for amenity purposes, supporting only a limited number of common species. Rarer or otherwise notable species would not be expected.
- 36. The grassland is considered to be of very limited ecological value.

Figure 7 Typical structure and composition of this habitat



Defra Metric Condition Assessment Poor

37. Meets 3 out of 6 criteria

	Condition Assessment Criteria Grassland habitat type	Pass/Fail
1	Clearly and easily recognizable as a good example of this type of habitat.	Fail
2	Appearance and composition very closely matches the characteristics for the specific Priority Habitat	Fail
3	Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency.	Fail
4	Undesirable species and physical damage is below 5% cover.	Pass
5	Cover of bare ground greater than 10%	Pass
6	Cover of bracken less than 20% & cover of scrub and bramble less than 5%.	Pass

1160 Introduced Shrub

Area estimate: 0.02ha

Figure 8 Approximate location and extent of habitat



38. Several small ornamental shrub beds are located throughout the Site's landscaping. These support a number of introduced ornamental grasses, shrubs and forbs, with occasional native species. Species include *Prunus lausitanica*, yew (*Taxus baccata*) and *Choisya ternata* amongst others.

Summary Evaluation

39. Shrub beds support a limited number of primarily introduced species of very limited ecological value.

Figure 9 Typical structure and composition of this habitat



Defra Metric Condition Assessment N/A

40. No assessment required within the technical supplement. Automatically assigned a score of 1 within the metric.

1170 Trees

Area estimate: 0.053 ha

Figure 10 Approximate location and extent of habitat



41. To the north west, an off-shoot from the Site intersects a band of more established young to early mature trees set within the grassland. Within the vicinity of the Site are around 6 trees including false acacia (*Robinia pseudoacacia*), London plane (*Platanus x hispanica*), lime (*Tilia* sp.) and lombardy poplar (*Populus nigra* 'Italica'). A single young spruce (*Picea* sp.) is also planted nearby.
42. Several young trees have also been more recently planted within new landscaping. These include silver birch (*Betula pendula*), black pine (*Pinus nigra*), Acers and false acacia (*Robinia pseudoacacia*).

Summary Evaluation

43. Trees are young to early mature at best which limits their ecological value. However, trees which make up part of the wider tree planting belt and native species are still considered to be of an elevated value, relative to the rest of the site.
44. False acacia is listed on Schedule 9 as an invasive plant species.

Figure 11 Typical structure and composition of this habitat



Defra Metric Condition Assessment Moderate

45. No assessment criteria within the technical supplement. Automatically assigned a score of 2 within the metric.

LT2 Line of Trees 56

Length estimate:0.1km

Figure 12 Approximate location and extent of habitat



46. A line of young trees appears to have been planted to support on-site ecology, as it features an array of native species primarily trees but also some shrub or understory species. The species mix includes alder (*Alnus glutinosa*), rowan (*Sorbus aucuparia*), oak (*Quercus* sp.), hawthorn (*Crataegus monogyna*), beech (*Fagus sylvatica*), guelder rose (*Viburnum opulus*), field maple (*Acer campestre*) and dog rose (*Rosa canina*). There is no notable vegetation within the field layer.

Summary Evaluation

47. A range of native trees and occasional shrub species recently planted. Due to the young nature of the trees the value of the habitat is reduced and the habitat is considered to be of limited ecological value.

Figure 13 Typical structure and composition of this habitat



Defra Metric Condition Assessment Poor

48. Meets the condition category most closely associated with poor.

Category	Continuity of tree canopy	Pass/Fail
Good	Mature trees with continuous canopy: -Trees which are at least 1/3 of expected mature heights -Gaps make up <10% total length and no canopy gaps >5m	Fail
Moderate	Continuous canopy: -trees <1/3 fully mature height -gaps make up <10%of length and canopy gaps >5m	Fail
Poor	Broken canopy: -Gaps make up >10% and/ or gaps are >5m	Pass

HR9 Ornamental Hedge

Length estimate: 0.07km

Figure 14 Approximate location and extent of habitat



49. A recently established and small hedgerow comprised entirely of *Prunus lusitanica* is found on the northern periphery of the site.

Summary Evaluation

50. The hedgerow is newly created from non-native species and otherwise lacks the features which would usually be associated with ecologically valuable hedges. It is considered to be of limited ecological value.

Figure 15 Typical structure and composition of this habitat



Defra Metric Condition Assessment Poor

51. No assessment criteria within the technical supplement. Automatically assigned a score of 0 within the metric.

DEFRA Metric (Baseline)³

52. This metric sets out the baseline for the Site - proposals should seek to achieve at least a 'no net loss' situation through **Avoiding** areas of higher value, **Mitigating** any loss on-Site through retention and enhancement, or habitat creation. The Local Planning Authority may require you to **Compensate** any residual loss elsewhere - either through direct works or an off-setting contribution.

Ref	Habitats and areas			Habitat distinctiveness	Habitat condition	Ecological connectivity	Strategic significance	Suggested action to address habitat losses	Ecological baseline
	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Ecological connectivity	Strategic significance		Total habitat units
1	Urban	Urban - Developed land; sealed surface	0.886	V.Low	N/A - Other	Low	Area/compensation not in local strategy/ no local	Compensation Not Required	0.00
2	Urban	Urban - Amenity grassland	0.704	Low	Poor	Low	Area/compensation not in local strategy/ no local	Same distinctiveness or better habitat required	1.41
3	Urban	Urban - Introduced shrub	0.02	Low	Poor	Low	Area/compensation not in local strategy/ no local	Same distinctiveness or better habitat required	0.04
4	Urban	Urban - Street Tree	0.053	Low	Moderate	Medium	Area/compensation not in local strategy/ no local	Same distinctiveness or better habitat required	0.23
5									
6									
Total site area ha			1.61					Total Site baseline	1.68

Baseline ref	UK Habitats - existing habitats			Habitat distinctiveness	Habitat condition	Ecological connectivity	Strategic significance	Suggested action to address habitat losses	Ecological baseline
	Hedge number	Hedgerow type	length KM	Distinctiveness	Condition	Ecological connectivity	Strategic significance		Total hedgerow units
1		Hedge Ornamental Non Native	0.1	V.Low	Poor	Low	Area/compensation not in local strategy/ no local strategy	Same distinctiveness	0
2		Line of Trees (Ecologically Valuable)	0.07	Medium	Poor	Medium	Area/compensation not in local strategy/ no local strategy	Like for like or better	0.308
3									
4									
5									
6									
7									
Total Site length/KM			0.17					Total Site baseline	0.31

³ 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. 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.

Faunal Appraisal

Amphibians

Desk evidence

- 53. There are no ponds shown on mapping within 500m.
- 54. The only GCN record returned is an absence record centred on a golf course c. 1.9km from the site.

Field Evidence

- 55. The Site offers relatively poor terrestrial habitat for amphibians including GCN. It is also isolated from any other areas of higher value amphibian habitats by roads and development.
- 56. There are no waterbodies on the site.

Summary Evaluation

- 57. The Site is highly unlikely to be of any specific importance to amphibians.
- 58. A likely absence of great crested newt has been concluded.

Further Surveys

- 59. No further surveys or precautions are considered necessary.

Birds

Desk evidence

- 60. No significant bird records exist for the Site or the developments sphere of influence.

Field Evidence

- 61. The built development habitats of the site represent habitats of minimal value to this group. Trees, shrubs and grassland will be of some limited value for foraging and nesting, but these are widespread habitats and ubiquitous in the local area.
- 62. A small number of common bird species were noted during the survey including wood pigeon, magpie, blackbird, carrion crow, black headed gull and pied wagtail.

Summary Evaluation

- 63. The Site will support a small number of bird territories and displacement of this is inevitable. However, as the site will not support key species the significance of this is low.

Further Surveys

- 64. No further surveys are considered necessary to demonstrate current baseline in respect of birds.
- 65. Standard precautions apply in relation to pre-clearance.

Bats

Desk evidence

66. Bats are well recorded in the area with 389 records returned many of these are from activity transects centred near Chorlton Water Park with only 26 being of roost records.
67. The nearest two roost records are both c. 300m from the site. One is of brown long eared in 2005, with no further details given whilst the other is of 2-4 common pipistrelles dated 2016.

Field Evidence

Potential Roost Sites

Buildings: A single large building (Building 1) is present on the Site, this being a modern commercial type building, which is likely to have a steel frame supporting glass walls. No potential roost features were noted and the general construction style of the building suggests it would be highly unsuited to supporting roosting bats. It is considered to be of *Negligible* bat roost suitability.

Two smaller structures are also present on site. The first is a small bin and bike store (Building 2) which is of a simple and open sided construction, unsuited to supporting roosting. A small metal electrical substation (Building 3) comprised of sheet metal walls and a roof is also unsuited to supporting roosting. Both structures are considered to offer *Negligible* bat roost suitability.

Trees: None of the trees on site were seen to supporting any potential roost features and are generally of a young age where features would not be expected. None of the trees on site are considered to offer any more than *Negligible* bat roost suitability.

Foraging and Commuting Habitat

68. The Site is likely to be well lit at night and though there are a small number of trees it generally lacks features which are likely to be attractive to foraging or commuting bats.

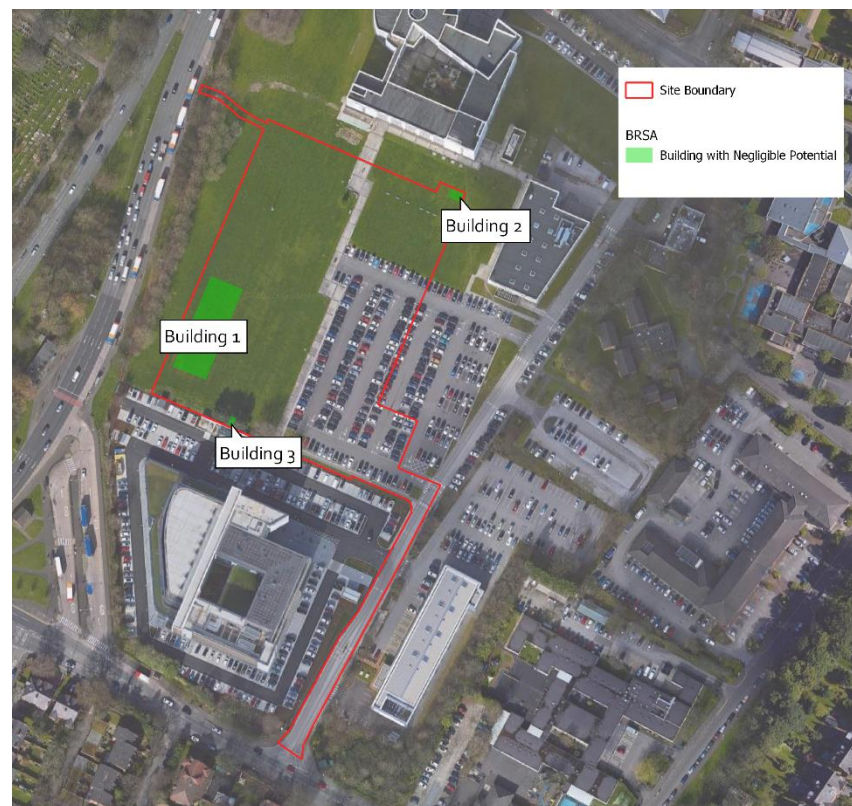
Summary Evaluation

69. The Site is considered highly unlikely to be of any specific value to bats.

Further Surveys

70. Further surveys in relation to bats are not recommended.

Figure 16 Buildings on Site.



Bat Roost Suitability Assessment

Overview of B1



B1 western elevation



B1 eastern elevation



B3 Overview



Overview of B2



General view of trees at western boundary



Tree towards the centre of the site



Young trees at the south eastern boundary



Badgers

Desk evidence

71. Badgers are well recorded, with a total of 52 records returned, many of which are recently dated and range from setts to sightings. The majority of these were centred on two locations, both over 1km from the site. The nearest record returned is from c. 300m north of the site and relates to a possible 3 hole badger sett in 2016.

Field Evidence

72. The majority of the site being developed ground is of virtually no value to badger.
73. Grassland areas will be of some value to foraging and the open nature of the site will allow badgers to move through it freely. However, the open and featureless nature of the site will likely reduce its appeal for any sett making as will regular maintenance.
74. No signs were noted during the walkover survey.

Summary Evaluation

75. Occasional badger activity cannot be discounted from the Site though this is likely to be limited to occasional foraging or commuting through. Badgers are considered unlikely to have any specific dependence upon the Site.
76. Significant impacts upon badger are considered highly unlikely.

Further Surveys

77. No further surveys or precautions are considered necessary.

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Hedgehogs

Desk evidence

78. A large number of hedgehog records have been returned for the area though none are centred on the site.

Field Evidence

79. No evidence of hedgehogs was found on site.

Summary Evaluation

80. The Site provides some albeit limited areas of suitable habitat for this species though it is likely they will move through the open areas of the Site often.
81. If obvious habitat corridors cannot be retained through the Site, efforts should be made to retain accessibility for hedgehogs via the inclusion of holes in the bases of walls etc.

Further Surveys

82. Presence assumed no further surveys are considered necessary.

Reptiles

Desk evidence

- 83. There are three records of grass snake and six records of slow-worm in the area but none from the Site.
- 84. All slow-worm records are centred on Chorlton Water Park with the nearest being 1.1km from the site. They are dated from 2008 – 2010.
- 85. Two of the grass snake records are centred on Chorlton Water Park whilst a third is located in between a railway embankment and allotment c. 750m north east, though this is dated from 1986.
- 86. All records are separated from the site by various roads and developments.

Field Evidence

- 87. The site presents habitat of negligible value to this group being mostly developed or open amenity grassland.
- 88. No field evidence was found.

Summary Evaluation

- 89. Reptiles are assessed as likely absent from the site.

Further Surveys

- 90. No further surveys or precautions are considered necessary.

Invasive Non-Native Species (INNS)

91. 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. The following species were noted⁴:

- False acacia

Survey constraints

92. 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, third 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.
93. This Site presents a small risk of supporting undetected INNS based on the following factors:
- Suboptimal survey season
 - Potential for recent earthworks or management which may have obscured viable material
 - Proximity to nearby potential sources of infection
94. Should further assurances be needed in relations to INNS you should commission a dedicated Invasive Weed Survey.

Figure 17 INNS locations (pink shade) in relation to the site. Locations and area is approximate.



⁴ 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

95. There do not appear to be any insurmountable ecological constraints associated with the Site's development.
96. Some precautions are recommended in relation to nesting birds and INNS. These measures could be secured by standard condition.

Ecological Opportunities

97. The most apparent opportunity to enhance the Site's ecology here would be to adjust the management regimen to improve the grassland and trees at the western boundary. This could be achieved via sowing with a suitable wildflower grassland mix and incorporate a more sympathetic cutting regime to encourage wildflower proliferation.
98. Additional formal landscaping areas should focus on varied native species or those which are otherwise beneficial to wildlife such as lavender, rosemary and fruit bearing shrubs. Where possible additional native trees, also of various species, should be included.
99. Installing roosting, nesting or hibernation features for fauna will also be beneficial. A variety of features could be installed within buildings or trees.
100. Any fences or walls should be permeable so that hedgehogs can have access through the Site.

Figure 18 Ecological Opportunities



Conclusions and Recommendations

101. The site is comprised of limited number of common and widespread habitats, highly disturbed by ongoing human activity and in a built-up location.
102. The presence of scarce or otherwise notable fauna and flora at the Site appears unlikely. As such further species-specific surveys have not been recommended with any further considerations detailed below.

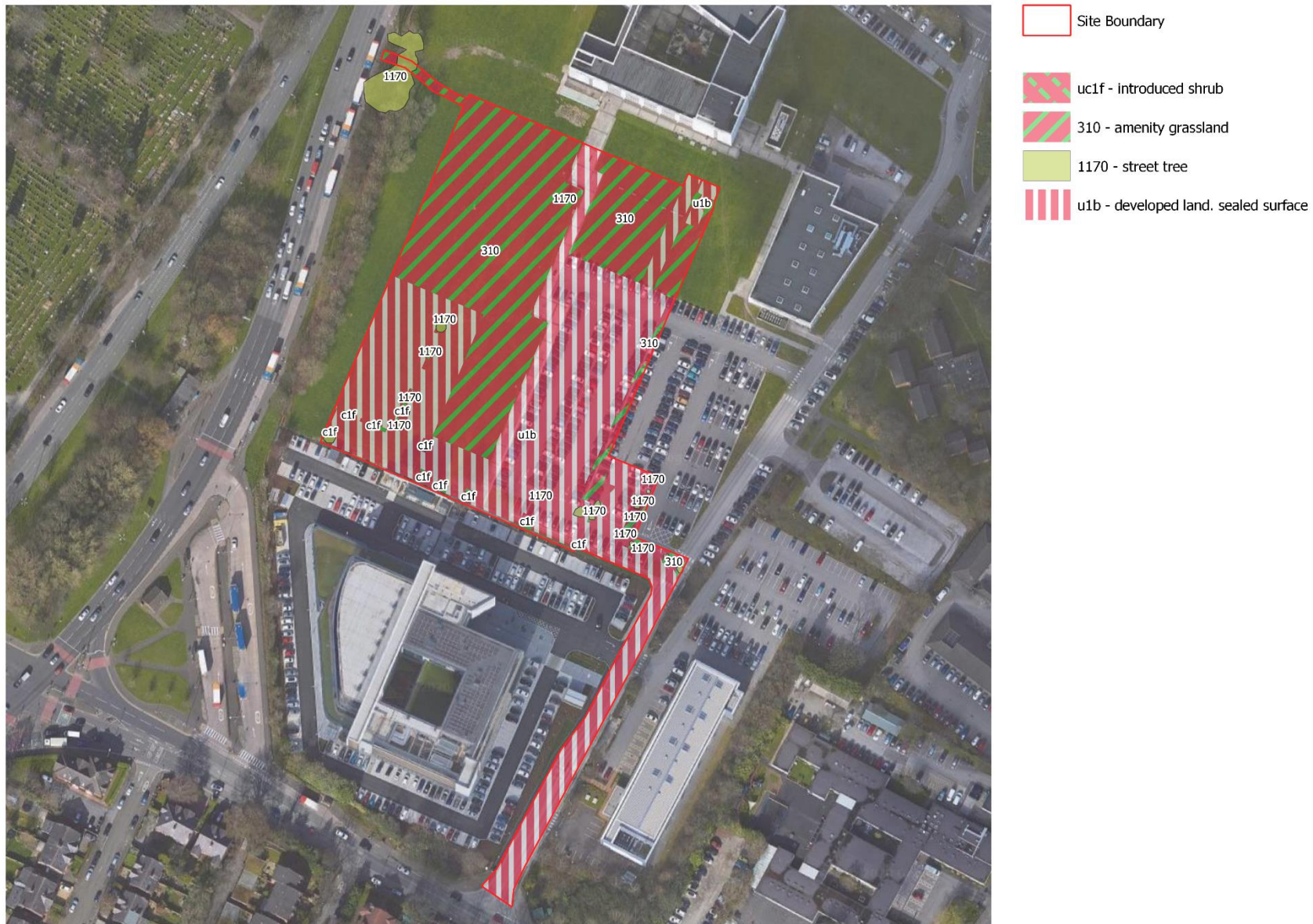
Planning considerations		
Recommendation	Rationale	When
R1 Produce a layout which minimises loss of biodiversity	The site has been assessed as having an Ecological Baseline score of 1.68 Habitat Units and 0.31 Hedgerow Units. Proposals will need to consider the NPPF hierarchy of Avoid - Mitigate – Compensate in minimising any loss of biodiversity. Engage with the Constraints and Opportunities set out above, involve your ecologist in designs at an early stage. It may be of benefit to produce a Green Infrastructure Plan or an ecologically led Landscape Concept Design* to submit with the application – given sufficient detail this could remove the need for a separate Landscape Master Plan and would help show how this process had been engaged with.	During the design process
R2 Produce a Biodiversity Net Gain Assessment	The main body of this assessment will show completed the Biodiversity Net Gain calculations, with post development metrics being based on the Site Layout and Landscape Masterplan; with measurements provided by the client architect.	Prior to submission.
R3 Produce a Biodiversity Management Plan	To specify in detail how the development will cater for biodiversity on site and to show how habitats will be maintained in the condition that the Biodiversity Calculations were based on.	Suitable for planning condition.

Other considerations (managing legal or financial risks)		
Issue	Rationale	When
R4 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 is 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. Nesting management can be set out in the CEMP if one is produced.	Pre- and during -clearance

References

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Appendix 1 Habitats and Ecological Features



Appendix 2 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 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.

Priority Species	Priority Habitats
Hare	Grassland
Great Crested Newt	Hedgerow
Willow Tit	Native Woodland
Water Vole	Ponds and Lodges
Bittern	Reedbeds
Black Redstart	Canals
Native Black Poplar	Urban Managed Greenspace
Twite	Uplands
Bats	
Floating Water Plantain	

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
<i>Negligible</i>	Negligible habitat features on site likely to be used by roosting bats.
<i>Low</i>	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.
<i>Moderate</i>	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).
<i>High</i>	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 3 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.

At this site its highly disturbed and urban location, lacking features attractive to bat activity suggests it will be easy to predict that only small numbers of common and disturbance resistant species are likely to make use of the site. As such further bat activity surveys are considered unlikely to reveal any meaningful information at the site and further survey is not recommended.

Appendix 4 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.

Protection of Badgers Act (1992)

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

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, 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 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 February 2019. 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 “*contribute to protecting and enhancing our natural environment*” and “*help to improve 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 functions for wildlife*” (P118).

Section 15 details conserving and enhancing the natural environment; policies and decisions should be “*protecting and enhancing 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 (P170). Allocations of land for development should, “*prefer land of lesser environmental value, where consistent with other policies in this Framework and take a strategic approach to maintaining and enhancing networks of habitats*” (P171).

The Framework sets out ways to minimise the impacts on biodiversity through “*identifying, mapping and safeguarding 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 the “*conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and (the need to) identify and pursue opportunities for securing measurable net gains for biodiversity*” (P174).

It is made clear in P175 that local planning authorities should apply principles when determining planning applications. Planning permission should be refused “*if significant harm to biodiversity resulting in 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 incorporate biodiversity improvements in and around developments should be encouraged, 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.