

Brooks

Ecological

Grounded advice

Preliminary Ecological Appraisal Report
Mellor Street, Rochdale

Rochemont Ltd

Report Reference: ER-5819-01.1

02/02/2022

Report Title:	Preliminary Ecological Appraisal Report Mellor Street, Rochdale
Report Reference:	ER-5819-01.1
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Summary

This report is produced to inform Rochemont Ltd 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 December 2021.

Key Findings

The Site is comprised of highly disturbed, low value habitats. The adjacent but off-site river is of higher ecological value and should be suitably buffered and protected.

No further surveys are recommended in support of planning.

The DEFRA Biodiversity Metric score for the Site is 0.57 Habitat Units.

Introduction

1. Brooks Ecological Ltd was commissioned by Rochemont Ltd to carry out a Preliminary Ecological Appraisal (PEA) of land at Mellor Street, Rochdale.
2. This report is produced with reference to British Standard BS:42020 'Biodiversity Code of Practice for Planning and Development' and the CIEEM (2017) Guidelines for Preliminary Ecological Appraisal.

Purpose of a PEA

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

The Site

7. The application site 'the Site' comprises a cleared development plot, likely brown field land, which has since been colonised by some secondary vegetation.
8. The assessment uses a 2km area of search around the Site for records of protected and notable species and locally or nationally designated wildlife sites.

Figure 1 The Site (red line boundary).



Desk Study

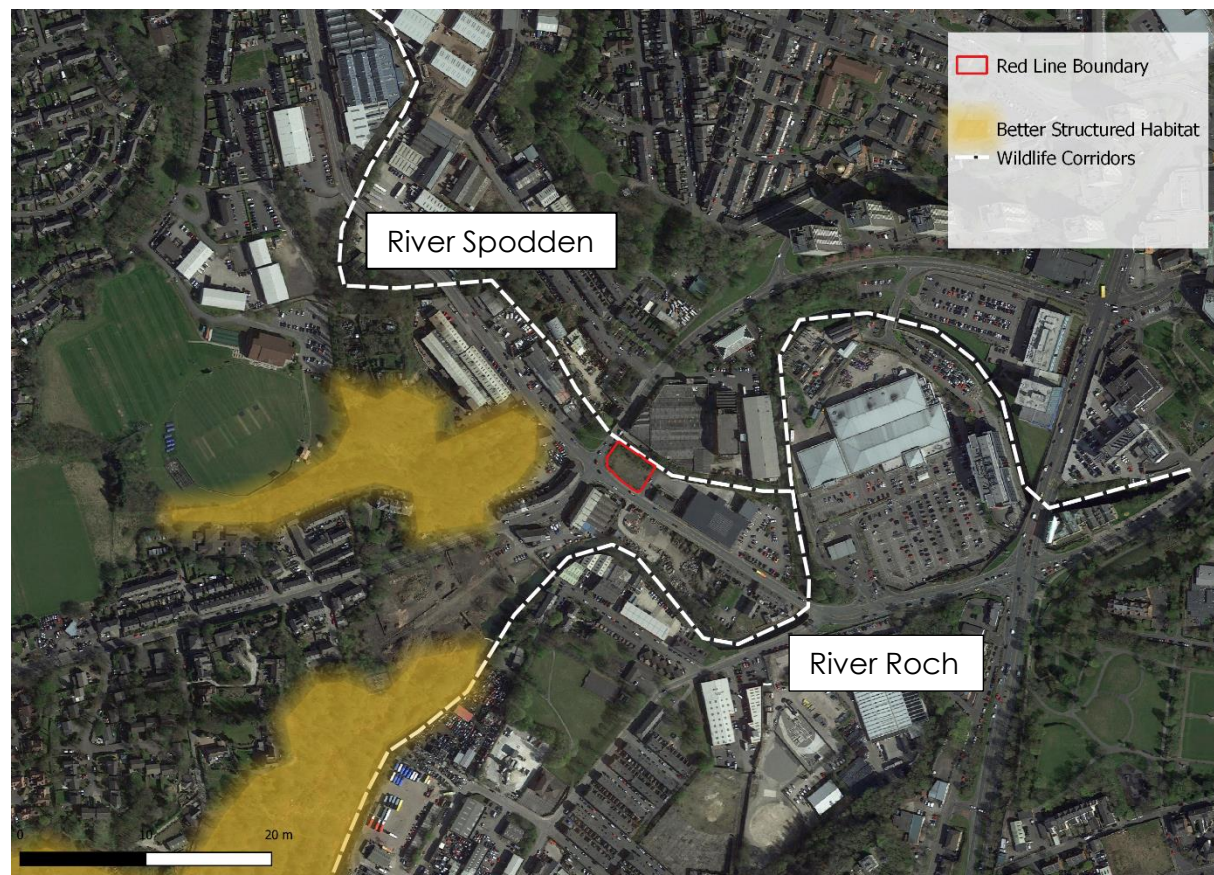
Landscape

9. The Site is located on the western edge of Rochdale town centre, c. 700m to the west. As such the area is well developed with a mix of primarily commercial and residential property.
10. The Site is immediately flanked by the River Spodden to the north east, beyond which is an old factory building. To the other boundaries roads flank the Site, alongside commercial and residential development.

Wildlife Corridors

11. The River Spodden flows into the River Roch c. 125m east of the Site. These will act as corridors for some species though the potential to facilitate wildlife movements is limited by the developed banks of both rivers in the local area. Semi-natural riparian bankside vegetation only becoming established c. 400m to the south and c.1.3km north.
12. To the west are some tree lined parkland and playing field areas, linked to Rochdale Cemetery further west which may constitute some of the better habitat locally.

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



Designated Sites

Statutory Designations

13. 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	1.6km south east	Special Area of Conservation (SAC) Site of Special Scientific Interest (SSSI)	Supports annex 2 species; floating water plantain.
South Pennine Moors Phase 2	6.1km east	SAC, SSSI Special Protection Area (SPA)	Annex 1 habitats including: blanket bogs, European dry heath and old sessile oak woodlands with Ilex and blechnum. Nationally important breeding populations of Annex 1 species merlin and golden plover. As well as a diverse assemblage of breeding migratory birds such as dunlin, snipe, sandpiper, curlew and short eared owl amongst others.
Healey Dell	1.85km	SSSI, Local Nature Reserve (LNR)	Steep wooded valley with industrial heritage along the River Spodden.

14. Impacts upon the above sites would not be expected due to the distances separating them from the Site and nature of development.

SSSI Impact Risk Zones (IRZs)

15. The Site lies within the IRZ for the Rochdale Canal SSSI but does not fall into any of the highlighted categories which require the LPA to consult with Natural England in relation to potential impacts.

Non-Statutory Designations

16. There are four Sites of Biological Interest (SBI) in the search area. These include Healey dell c. 1.85km north, springfield wood c. 1.65km south west, Meadowcroft wood c.1.75 km south west and the Rochdale Canal c. 1.6km south east.
17. Of these impacts have already been ruled out on Rochdale Canal and Healey Dell.
18. The Site is connected to the River Roch which flows through Meadowcroft and Springfield Wood by the adjacent River Spodden. However, direct and indirect impacts on these sites as a result of this development are considered unlikely due to the distance and nature of development provided standard precautions related to controlling potential pollution events into the river are put in place.

Nature Improvement Area

19. The site is not located within a nature improvement area.

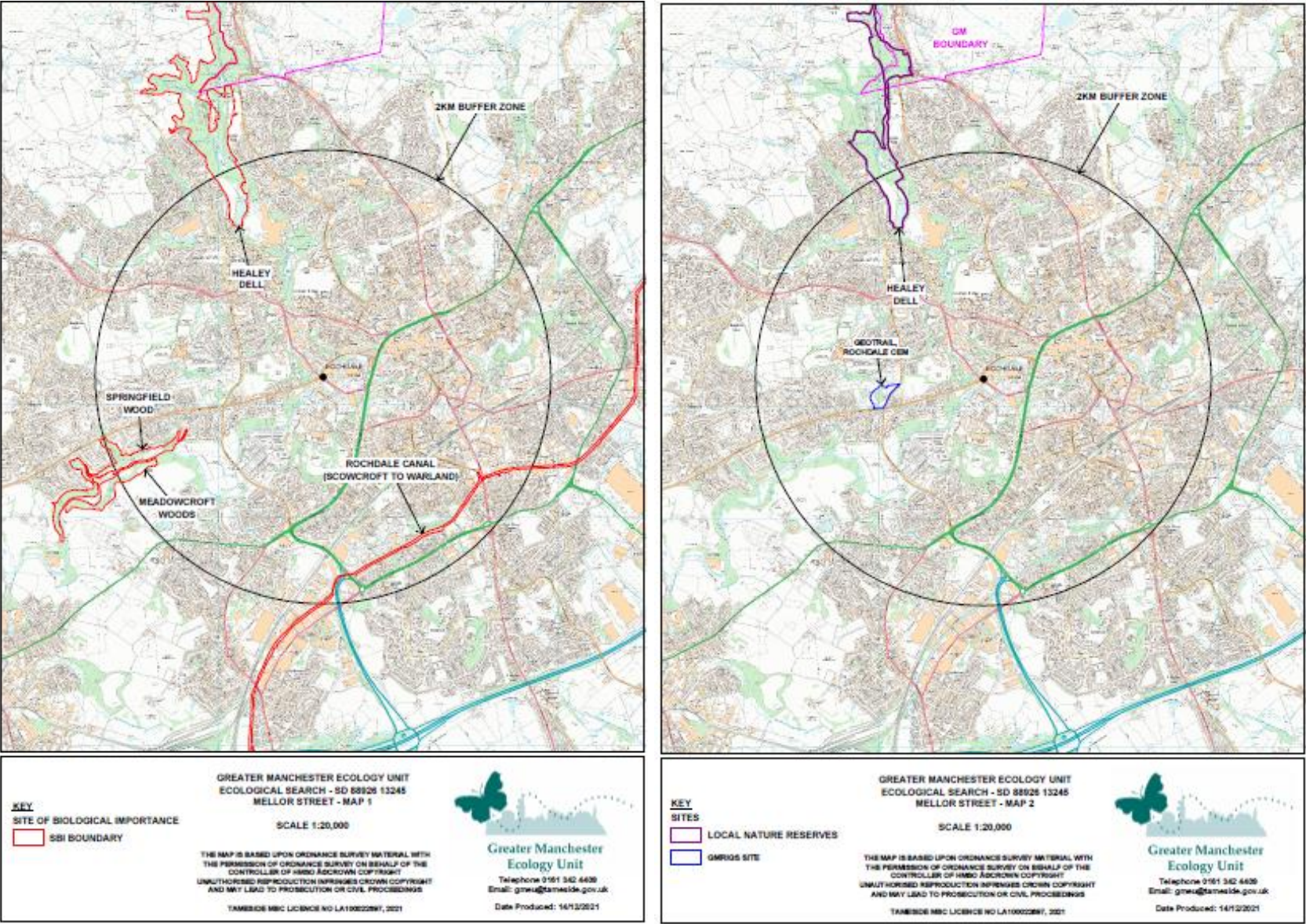
Wildlife Habitat Network

20. The area is located within the Greater Manchester green infrastructure opportunity area which is 'identified as having particular potential for delivering improvements to the Greater Manchester green infrastructure network'.
21. The development should seek to enhance the function of the River Spodden as a wildlife corridor, though this will be relative given its condition adjacent the Site.

Granted EPSM Licenses

22. Two granted licenses show up within 1km of the Site. The nearest, c. 300m east, is for works affecting a common pipistrelle roost and date 2009-2010. The second is c. 700m east for the destruction of a resting place of daubenton's, common and soprano pipistrelle dated 2015-2020.

Figure 3 Greater Manchester Ecology Unit; Locally Designated Sites.



Survey

Method

23. The survey was carried out during December 2021¹ and followed the principles of Extended Phase 1 Habitat Survey methodology (JNCC, 2010).

Limitations

24. Enough time was afforded the surveyor to carry out the survey. The survey was not constrained by poor weather.
25. Whilst the majority of the Site was accessible, access to the banking immediately adjacent the water course was limited by the drop between bank height and the water course. Scrub areas have also been recently cleared. This could have concealed invasive species or protected species evidence.

¹ This Report has been prepared during January 2022 following a visit to the site in December 2021 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

Habitat Appraisal

Habitats Identified

26. The Site's habitats are described in order on the following pages. In line with the requirement to provide information on **Biodiversity Net Gain (BNG)**, habitats are named in accordance with the UK Habitats classification system - we have used the relevant UK Habs guidance referenced at the back of the report in identifying habitats. Habitat descriptions are divided into the 'distinctiveness' categories used in the calculations - with more weight being afforded the more distinctive / important habitats.
27. 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

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

Low Distinctiveness Habitats

29. Habitats which are ubiquitous, often which have been created or modified by man. They tend to lack diversity of species and structure. They are unlikely to support notable flora but could still provide supporting habitat for protected or notable fauna. In the context of BNG they are included in calculations, but compensation / mitigation needs only to provide habitat of similar or higher distinctiveness.

Moderate Distinctiveness Habitats

30. 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.

subsequent alteration, variation or deviation from the site conditions which affect the conclusions set out in this report.

High Distinctiveness Habitats

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

Very High Distinctiveness Habitats

32. 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.
33. Each habitat is mapped and an area for each type is provided in the format of the DEFRA Biodiversity Metric 3.0 Calculation Tool. The areas can be used to quantify the impacts of development in an Ecological Impact Assessment if this is required by the Local Planning Authority.

Condition Assessment

34. Our condition assessment for each habitat described references where available the criteria set out in DEFRA (2021) Biodiversity Metric 3.0 Technical Supplement (1).
35. Habitats in the Very Low Distinctiveness tier do not require a condition assessment.
36. Habitats in the Low Distinctiveness tier tend to fall into the poor condition category by default. Where we feel this is not the case, we have explained our reasoning.
37. Habitats within the other higher tiers can fall into a range of conditions. We set out our reasoning based on the given criteria and guidelines.

Habitats of Low/Very Low Distinctiveness

Figure 4 Approximate location and extent of these habitats.



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

Habitat Code / Name	Summary Description	Condition
350 Vacant/ Derelict/ Bareground	Open bare and disturbed earth/ gravel substrate with a limited number of locally abundant plant species such as; bramble, buddleja, clovers, yarrow, dandelion and common grasses and mosses. This area is not considered to represent open mosaic habitat due to several factors among which are its small size, habitat variety and species composition.	Poor

Figure 5 Showing exposed substrate and colonisation by limited number of common plants .



Habitats of Medium Distinctiveness

Figure 6 Approximate location and extent of these habitats.



g3c Other Neutral Grassland

38. This appears to have established on more well consolidated earth/ soils than the derelict area as described above, however, it is still highly disturbed.
39. It is mostly comprised of common grasses and early successional forbs. The following species were noted; Yorkshire fog, creeping bent, couch, dandelion, strawberry, self heal, michaelmas daisy, mouse ear hawkweed, st.john's wort, ox-eye daisy, bush vetch, cinquefoil, creeping buttercup, white clover, coltsfoot, red clover and yarrow. Common mosses such as calliergonella cuspidata are also present. Scrub species are encroaching from the peripheries.
40. Small *Cotoneaster horizontalis* saplings were noted in the eastern grass area.

Condition Assessment - Poor

Grasslands Medium, High & Very High Distinctiveness		
	Pass/Fail	Condition Poor
1	Fail	5 out of 5 = Good 3 -4 = Moderate 1-2 = Poor
2	Fail	
3	Pass	
4	Fail	
5	Fail	

Figure 7 Grassy bank to north east.

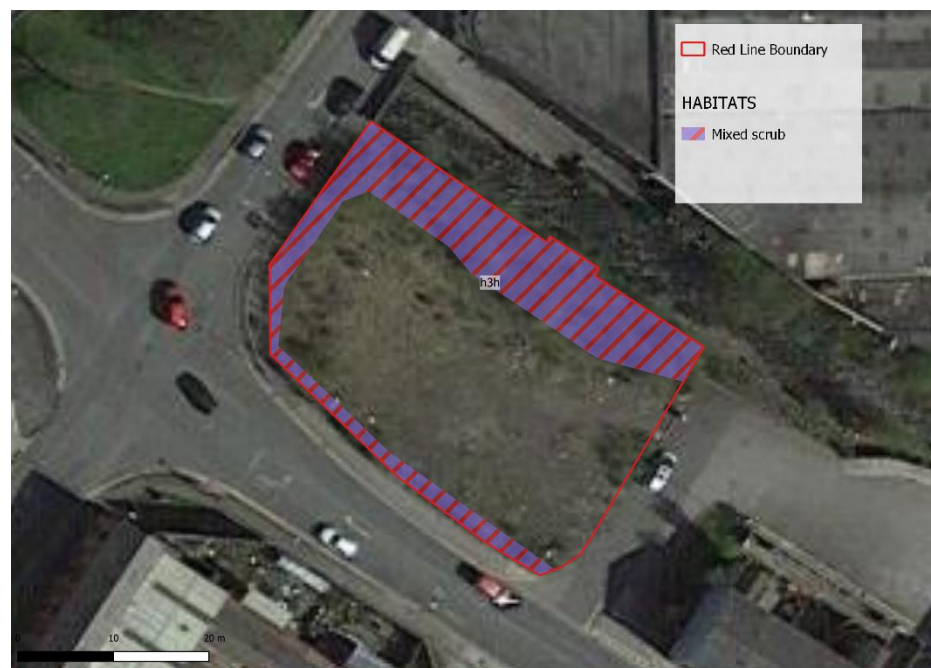


Figure 8 Central grassland area.



Habitats of Medium Distinctiveness

Figure 9 Approximate location and extent of these habitats.



h3h Mixed Scrub

41. Scrub has been recently cleared from the Site but appears to have been mainly comprised of bramble and buddleja with box, and tree saplings including silver birch, alder, goat willow.
42. Compleitive forbs are also abundant, particularly along the water course with cow parsley, nettle, broad leaved dock, tutsan, and herb robert. Noted more occasionally or rarely were pendulous sedge, great burnet, male fern and mosses.
43. Japanese knotweed was also found along the river with two large crowns noted. Its exact extent was difficult to discern due to scrub clearance.

Defra Metric Condition Assessment - Poor

Scrub		
	Pass/Fail	Condition
1	Pass	5 = Good 3-4 = Moderate 0-2 = Poor
2	Fail	
3	Fail	
4	Pass	
5	Fail	
	Poor	

Figure 10 Scrub along river



Figure 11 Scrub along roadside



Off-site habitat

Figure 12 Looking north across the river from the Site.



44. The River Spodden runs south east along the north eastern boundary. It is around 5m wide in this location, with a sandy/ gravel bottom with occasional sand bars. The river was mostly shallow at the time of survey but is likely to fluctuate considerably.
45. The banks are stone built along the Site and adjacent areas, c. 2-4m high. A stone bridge crosses the river at the northern edge of the Site.

DEFRA Metric (Baseline)²

46. This metric sets out the baseline for the Site - proposals should seek to **Avoid** areas of higher value, **Mitigating** any loss on-Site through retention and enhancement, or habitat creation.

Ref	Habitats and areas			Distinctiveness	Condition	Strategic significance	Suggested action to address habitat losses	Ecological baseline
	Broad habitat	Habitat type	Area (hectares)	Distinctiveness	Condition	Strategic significance		Total habitat units
1	Grassland	Other neutral grassland	0.0369	Medium	Poor	Within area formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required	0.17
2	Heathland and shrub	Mixed scrub	0.0418	Medium	Poor	Within area formally identified in local strategy	Same broad habitat or a higher distinctiveness habitat required	0.19
3	Urban	Vacant/derelict land/ bareground	0.0917	Low	Poor	Within area formally identified in local strategy	Same distinctiveness or better habitat required	0.21
4								
5								
			0.17					0.57

² 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. Where conversion to monetary value is required, it is always advisable to get calculations checked independently.

Faunal Appraisal

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

Amphibians

Desk evidence

48. A single Great Crested Newt (GCN) record has been returned which states 'found in cellar' of a house c. 480m south west of the site and dated 2014. An absence record has also been returned for a pond c. 650m south, dated 2005.
49. No other amphibian records have been returned.

Field Evidence

50. The Site is well separated from any surrounding suitable habitat by barriers to amphibian movements including the river, roads and development to all sides.

Summary Evaluation

51. The Site is unlikely to be of value to amphibians and a likely absence of GCN is concluded.

Further Surveys and Recommendations

52. No further surveys or precautions are considered necessary.

Figure 13 Ponds mapped in relation to the Site.



Bats

Desk evidence

53. 73 roost records have been returned for central Rochdale, these are mainly of common and soprano pipistrelle, or recorded as pipistrelle species. Two records of Daubenton's roosts have been returned. The nearest roost is centred c. 530m east of the Site, on a bridge over the River Roch, this being of an 8 bat daubenton's day roost in 2014.

Field Evidence

Potential Roost Sites

Buildings: There are no buildings on Site. The bridge adjacent, but off the Site, may have some limited bat roost potential based on some visible shallow cracks though it could not be fully inspected from accessible areas. However, it is not anticipated this will be impacted by works.

Trees: There are no trees on Site.

Foraging and Commuting Habitat

54. The Site is unlikely to be of any specific value to foraging or commuting bats due to the poor habitats and it's well-lit nature due to surrounding street lights.
55. The river may be of some value to bat activity, with low bat activity likely though again this will likely be limited due to light pollution.

Summary Evaluation

56. The Site is unlikely to be of any specific value to bat activity or roosting.
57. The presence of low numbers of bats along the river or roosting within the bridge cannot be ruled out. However, these will not be directly impacted by works and provided suitable precautions are put in place significant impacts would not be expected.

Further Surveys and Recommendations

58. Further surveys are not recommended.
59. A CEMP should include provision to minimise security lighting during construction along the river and upon the bridge.
60. A sensitive lighting plan should be devised which prevents light pollution on the adjacent river and bridge post development and specifies precautions to minimise light pollution elsewhere via directional lighting and use of specific wavelengths. This should all be considered in context of the Site already being subject to considerable light pollution.

Figure 14 Bridge as viewed from the Site.



Birds

Desk Evidence

61. A large number of records for a range of common garden and urban bird species such as blue tit, house sparrow and dunnock have been returned.

Field Evidence

62. The Site supports common and species poor habitats unlikely to support anything other than intermittent bird activity.
63. No notable activity was recorded whilst undertaking the survey.

Summary Evaluation

64. It is unlikely the Site is of any specific value to this group.

Further Surveys and Recommendations

65. No further surveys are considered necessary to demonstrate current baseline in respect of birds.
66. Standard precautions apply in respect of restrictions on clearing vegetation during the nesting season.

Riparian Mammals

Desk evidence

67. Two water vole records have been returned however both are some distance away at 1.7km and 1.9km and dated from 2015 and 2000 respectively. The further record is located at the confluence of Stanney Brook and the River Roch, Brooks Ecological have done many surveys associated with a nearby section of Stanney Brook where Water Vole were historically present but have since disappeared, with Mink recorded.
68. No otter records have been returned.

Field Evidence

69. The Site is not suited to water vole due to a lack of riparian vegetation and stone built banks.
70. The river is more suited to otter, though habitat is in poor condition and there is no suspicion this species is currently present or using the Site.

Summary Evaluation

71. The likely absence of water vole from the Site can be concluded.
72. Occasional otter presence cannot be ruled out, passing along the river, however is presence within or reliance upon the Site is highly unlikely.

Further Surveys and Recommendations

73. Further survey is not recommended.
74. Suitable precautions should be included within a CEMP to prevent impacts upon the river. A sensitive lighting plan will help to mitigate impacts post construction.

Badgers

Desk evidence

75. No badger records have been returned.

Field Evidence

76. No evidence was noted during the survey.

Summary Evaluation

77. The site is unlikely to support or be of any value to this species.

Further Surveys and Recommendations

78. No further survey or works are recommended.

Hedgehogs

Desk evidence

79. Hedgehogs are well recorded within the search area.

Field Evidence

80. No evidence of hedgehogs was found on site.

Summary Evaluation

81. The Site provides suitable habitat for this species but it is not of any notable value.
82. Though intermittent presence at the Site cannot be ruled out, it is generally considered unlikely due to it being flanked by roads, a river and development.

Further Surveys and Recommendations

83. Incidental presence assumed. No further surveys are considered necessary.

Reptiles

Desk evidence

84. There are no records of reptiles in the area. Despite the site providing some apparently suitable terrestrial habitat and corridors to other areas, the lack of reptile populations within the area mean the site is very unlikely to support this group.

Field Evidence

85. The river corridor may be used by grass snake should they be present but it is poor habitat.
86. The Site would be difficult to access for reptiles and again the habitat present is generally poor.

Summary Evaluation

87. Reptiles are assessed as likely absent from the site.

Further Surveys and Recommendations

88. No further surveys or precautions are considered necessary.

White clawed crayfish

Desk evidence

89. No records have been returned and this species is generally considered to have been extirpated from lowland areas.

Field Evidence

90. No access was available to any riparian habitats.

Summary Evaluation

91. Absence of records from the river makes it very unlikely that this species is present or is at risk from development activities.

Further Surveys and Recommendations

92. The presence of this species is unlikely and provided some suitable precautions are put in place within a CEMP, such as controlling run-off, impacts would not be expected.
93. Further survey is not recommended.

Invasive Non-Native Species (INNS)

94. 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 noted³:

- Japanese Knotweed
- Cotoneaster species

Survey constraints

95. While some INNS have been identified in this preliminary survey it is not always possible to conclude full range of species present or their true extent due to factors such as season, accessibility, 3rd party attempts to hide evidence or undisclosed treatment programmes. For this reason, this report should not be relied upon as definitive evidence of the status of INNS.
96. This site presents a high risk of supporting undetected INNS based on the following factors:
- Areas of site inaccessible to survey
 - Suboptimal survey season
 - Potential for recent earthworks or management which may have obscured viable material
 - Proximity to nearby potential sources of infection
 - Potential for tipping of material
97. Should further assurances be needed in relations to INNS, a dedicated Invasive Weed Survey should be commissioned.

³ 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

Figure 15 Approximate locations of INNS.

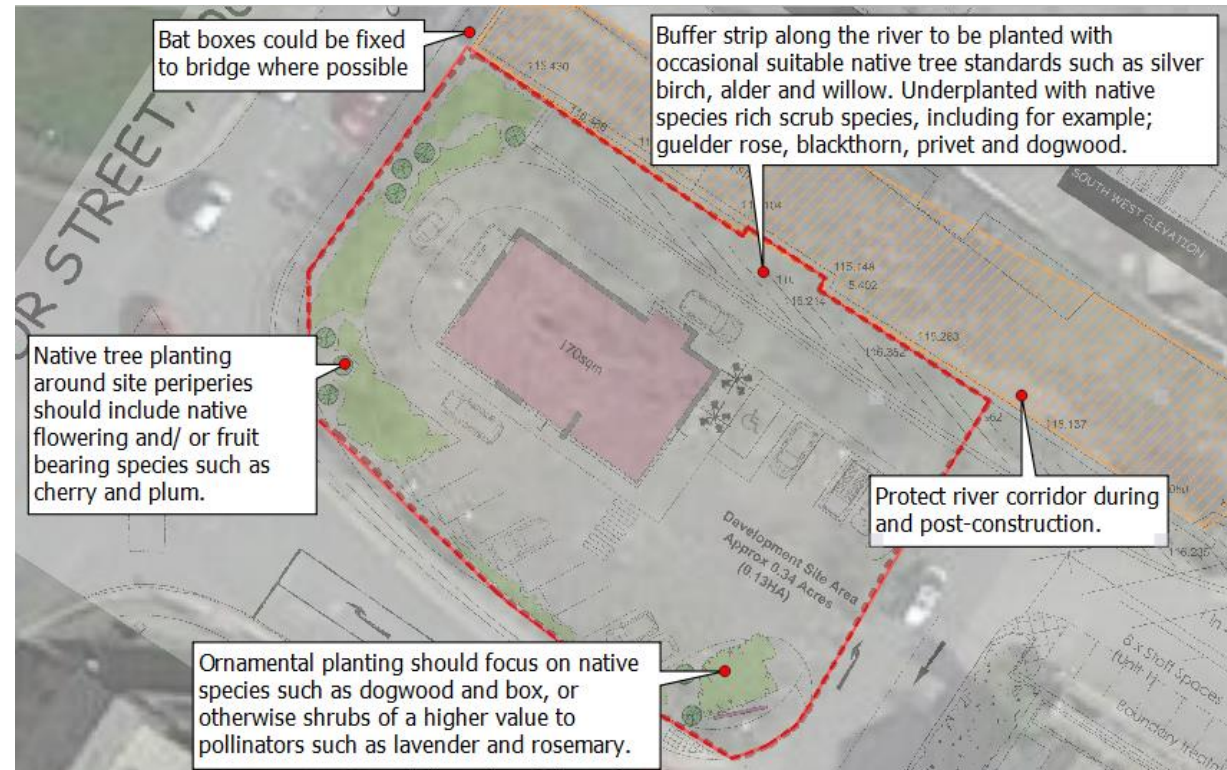


presence of invasive species can generate significant costs to development, the client may wish to instruct a dedicated invasive species survey prior to entering into contracts.

Ecological Constraints & Opportunities

98. Most LPAs now require developments to demonstrate a 'no net loss' in biodiversity, or in some cases a 10% net gain. The Site has been assessed as having a Biodiversity Metric score of 0.57Habitat Units.
99. Any net loss in biodiversity may need to be compensated for, through offsetting, which could require a financial contribution be made to the LPA's Habitat Fund, or a third-party broker.
100. Usually, a scheme would seek to minimise habitat loss but given the nature of exiting habitats, their low value and the proposals this would appear unsuitable. The scheme should seek to mitigate biodiversity loss by creating new habitats such as native scrub, shrub and tree planting.
101. Appropriate native species planting should be pursued along the river to enhance this feature as wildlife corridor and buffer from the development. This should focus on native riparian trees and native species rich scrub which will compliment the river and buffer from littering, light and noise pollution.
102. A CEMP during construction and sensitive lighting plan once operational should be put in place, to mitigate impacts on the river.

Figure 16 Constraints and Opportunities Plan.



Conclusions and Recommendations

Planning considerations		
Recommendation	Rationale	When
R1 Additional Surveys	Not required in support of planning	N/A
R2 Biodiversity Net Gain Strategy (BNS)	Engage an ecologist to work with the design team to maximise available Biodiversity Units on site.	During the design process
R3 Landscape Design	Make sure your landscape architect follows ecological advice or the BNS to maximise Biodiversity Units on site and make sure there are no design conflicts.	During the design process
R4 Calculate final Biodiversity Impact Score	Using DEFRA metric to quantify net gain/loss of biodiversity.	After a fixed design is agreed.
R5 Include biodiversity measures in CEMP	To show how the site will be built without affecting surrounding habitats and minimising risk of affecting protected or notable fauna. The CEMP will detail the following protection measures: • Protection of river from light pollution • Protection of river from silt or other pollutants/ leachates/ spillages • Nesting bird management	Delivery report Suitable for planning condition.
R6 Lighting Plan	Develop a sensitive lighting plan which reduces light spill in/ on to the River. This should include: a. Avoid excessive lighting to boundary of the site, such as security lights. b. If possible incorporate native tree species buffer planting along the boundary to absorb excessive light spill. Where lighting is required here or elsewhere around the site, then follow the below: • Use an LED light with a reduced spectrum in preference to lights featuring UV and blue light. • Use low level columns or bollards and direct lighting downwards. • Set external security lighting on a motion sensor with a short timer (one minute). • Reduce light spill using baffles, hoods or louvres. • Within buildings, set lights back into rooms to reduce spill, and use glazing treatments to obscure light.	Suitable for planning condition.

Other considerations (managing legal or financial risks)		
Issue	Rationale	When
R7 INNS Management Plan	This provides a formal INNS Survey and sets out management prescriptions and timings in detail. It can provide security for the Main Contractor and assurance for future Site operators / purchasers / owners.	Best initiated at an early stage (INNS Survey would ideally be complete April - October)

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Appendix 1 Habitats and Ecological Features



Appendix 2 Condition Assessment Criteria

Grassland

Condition Sheet: GRASSLAND Habitat Type (medium, high & very high distinctiveness)	
UKHab Habitat Type(s)	
Grassland - Lowland calcareous grassland Grassland - Lowland dry acid grassland Grassland - Lowland meadows Grassland - Other lowland acid grassland Grassland - Other neutral grassland Grassland - Tall herb communities* Grassland - Upland acid grassland Grassland - Upland calcareous grassland Grassland - Upland hay meadows Sparsely vegetated land - Calaminarian grassland	
Habitat Description	
See UKHab	
* Note Tall herb habitat that does not meet the definition of Annex 1 habitat 'Tall herb communities (H6430)' should be recorded as 'Other neutral grassland'	
Condition Assessment Criteria	
1	The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.
2	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.
3	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.
4	Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.
5	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species ¹ and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.
Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)
Notes	
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .	

Scrub

Condition Sheet: SCRUB Habitat Type	
UKHab Habitat Type Heathland and shrub - Blackthorn scrub Heathland and shrub - Bramble scrub Heathland and shrub - Gorse scrub Heathland and shrub - Hawthorn scrub Heathland and shrub - Hazel scrub Heathland and shrub - Mixed scrub Heathland and shrub - Sea buckthorn scrub (Annex 1)	
Habitat Description See UKHab For sea buckthorn scrub use Habitats Directive Annex 1 definition	
Condition Assessment Criteria	
1	Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).
2	There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.
3	There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species ¹ make up less than 5% of ground cover.
4	The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).
5	There are clearings, glades or rides present within the scrub, providing sheltered edges.
Condition Assessment Result	Condition Assessment Score
Passes 5 of 5 criteria	Good (3)
Passes 3 or 4 of 5 criteria	Moderate (2)
Passes 0, 1 or 2 of 5 criteria	Poor (1)
Notes	
Footnote 1 - Species considered undesirable for this habitat type include: creeping thistle <i>Cirsium arvense</i> , common nettle <i>Urtica dioica</i> , cherry laurel <i>Prunus laurocerasus</i> , snowberry <i>Symphoricarpos</i> spp., buddleia <i>Buddleja</i> spp., cotoneaster <i>Cotoneaster</i> spp., Spanish bluebell <i>Hyacinthoides hispanica</i> (or hybrids).	

Urban non-priority

Condition Sheet: URBAN - NON PRIORITY Habitat Type	
UKHab Habitat Type	
Sparsely vegetated land - Ruderal/ephemeral Urban - Allotments Urban - Bioswale Urban - Brown roof Urban - Cemeteries and churchyards [Use Urban condition sheet as default. Where there are areas of grassland, woodland or scrub above the minimum mappable area, record and assess these as the relevant habitat type] Urban - Extensive green roof Urban - Façade-bound green wall Urban - Ground based green wall Urban - Intensive green roof Urban - Open mosaic habitats on previously developed land Urban - Rain garden Urban - Sustainable urban drainage feature [in the context of the Biodiversity Metric, this habitat type refers to open SUDS with vegetation and/or open water] Urban - Vacant / derelict land / bare ground	
Habitat Description	
See UKHab	
Condition Assessment Criteria	
CORE CRITERIA - applicable to all urban habitat types:	
1	Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.
2	There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife).
3	Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).
ADDITIONAL CRITERION - only applicable to Open mosaic on previously developed land habitat type:	
4a	The site shows spatial variation, forming a mosaic of at least four early successional communities (a) to (h) PLUS bare substrate AND pools. (a) annuals; (b) mosses/liverworts; (c) lichens; (d) ruderals; (e) inundation species; (f) open grassland; (g) flower-rich grassland; (h) heathland.
ADDITIONAL CRITERION - only applicable to Bioswale and SUDS habitat types:	
4b	The water table is at or near the surface throughout the year. This could be open water or saturation of soil at the surface.
Condition Assessment Result	Condition Assessment Score
If 3 criteria assessed:	
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3	Good (3)

• Passes 2 of 3 core criteria; OR • Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)
• Passes 0 or 1 of 3 core criteria	Poor (1)
If 4 criteria assessed:	
• Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3; AND • Passes additional criterion 4a or 4b	Good (3)
• Passes 2 of 3 of 4 criteria; OR • Passes 4 of 4 criteria but does not meet the requirements for good condition within criteria 2 and 3	Moderate (2)
• Passes 0 or 1 of 4 criteria	Poor (1)
Notes	

Appendix 3 List of species recorded

Creeping bent	<i>Agrostis stolonifera</i>
Cow parsley	<i>Anthriscus sylvestris</i>
False oat grass	<i>Arrhenatherum elatius</i>
Daisy	<i>Bellis perennis</i>
Rough-stalked feathermoss	<i>Brachythecium rutabulum</i>
Shepherd's purse	<i>Capsella bursa-pastoris</i>
Common mouse-ear	<i>Cerastium fontanum</i>
Rosebay willowherb	<i>Chamerion angustifolium</i>
Creeping thistle	<i>Cirsium arvense</i>
Spear thistle	<i>Cirsium vulgare</i>
Cock's-foot	<i>Dactylis glomerata</i>
Couch grass	<i>Elymus repens</i>
Willowherb	<i>Epilobium sp.</i>
Red fescue	<i>Festuca rubra agg.</i>
Hogweed	<i>Heracleum sphondylium</i>
Yorkshire fog	<i>Holcus lanatus</i>
Ragwort	<i>Jacobaea vulgaris</i>
Pineapple weed	<i>Matricaria discoidea</i>
Rat's tail/ greater plantain	<i>Plantago major</i>
Knotgrass	<i>Polygonum aviculare</i>
Creeping buttercup	<i>Ranunculus repens</i>
Bramble	<i>Rubus fruticosus</i>
Elder	<i>Sambucus nigra</i>
Dandelion	<i>Taraxacum officinale agg.</i>
White clover	<i>Trifolium repens</i>
Nettle	<i>Urtica dioica</i>
Broad leaved dock	<i>Rumex obtusifolius</i>
Red clover	<i>Trifolium pratense</i>
Common alder	<i>Alnus glutinosa</i>
Herb robert	<i>Geranium robertianum</i>
Ground ivy	<i>Glechoma hederacea</i>
Common feather moss	<i>Kindbergia praelonga</i>

Yarrow	<i>Achillea millefolium</i>
Michaelmas daisy	<i>Aster amellus</i>
Silver birch	<i>Betula pendula</i>
Pendulous sedge	<i>Carex pendula</i>
Cotoneaster	<i>Cotoneaster horizontalis</i>
Male fern	<i>Dryopteris filix-mas</i>
Canadian fleabane	<i>Erigeron canadensis</i>
Tutsan	<i>Hypericum androsaemum</i>
St John's wort	<i>Hypericum sp.</i>
Selfheal	<i>Prunella vulgaris</i>
Goat willow	<i>Salix caprea</i>
Greater burnet	<i>Sanguisorba officinalis</i>
Coltsfoot	<i>Tussilago farfara</i>
Bush vetch/tare	<i>Vicia sepium</i>
Japanese Knotweed	<i>Renoutria japonica</i>
Mouse-ear hawkweed	<i>Pilosella officianum</i>

Appendix 4 Explanatory Notes and Resources Used

Site Context

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

Designated Sites

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

Functional linkage with off-Site habitats

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

- Hydrological links - is the Site upstream downstream, or could ground water issues affect it?
- Physical links - is the site in close proximity and could it be directly or indirectly affected by construction and operational effects? Conversely it may be that despite proximity major barriers separate the two.
- Recreational links - do footpaths and roads make it likely that increased recreational pressure could be felt?
- Habitat links - is the site part of a network of similar habitat types in the wider area? These could be joined by linear corridors or could simply be 'stepping stones of habitat of similar form or function.

Method

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

Faunal Appraisal

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

Records of notable species supplied from a 2km area of search by 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 Local BAP'.

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 5 Bat Activity Survey Rationale

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

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

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

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

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

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

The Site is comprised of habitats of very low value in a highly disturbed location, as such, it is highly likely that bat activity will be limited to sporadic activity by common species. Further survey is considered unlikely to provide additional useful/ meaningful information on bat activity at the Site.

Surveys were directed by Joshua Birchall BSc (Hons) ACIEEM. Josh has over 6 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 WML CL17 (Level 1).

Appendix 6 Wildlife Legislation, Policy and Guidance

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

Legislation

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

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

Council Directive 79/409/EEC on the Conservation of wild birds (EC Birds Directive) and The Ramsar Convention on Wetlands of International Importance (1971)

Provides framework at an international (EU) level for the consideration / protection of important bird populations and the sites on which they are dependant.

The Conservation of Habitats and Species Regulations (2010)

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

The Wildlife and Countryside Act (1981) as amended

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

The Countryside and Rights of Way Act 2000 (CRoW)

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

Natural Environment and Rural Communities Act 2006 (NERC)

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

Hedgerows Regulations (1997)

Define and provide protection for Important Hedgerows.

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 July 2021. The most relevant paragraphs from the NPPF are set out below.

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

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

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

The Framework sets out ways to minimise the impacts on biodiversity through plans which “*identify, map and safeguard components of local wildlife rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity*” and promote the “*conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity*” (P179).

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

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

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

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

ODPM circular 06/05 (2005) Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System

Provides guidance to Local Authorities on their obligations to biodiversity – particularly in relation to assessing planning applications and ensuring the adequacy of information.

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

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