



Preliminary Ecological Appraisal

Station Road, Mirfield

Report reference: R-2894-01

June 2017

Report Title:	Station Road, Mirfield
Report Reference:	R-2894-01
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The information which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report does not constitute legal advice.



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Contents

Summary	3
Introduction	4
Site context.....	5
Designated Sites	7
Habitats.....	10
Fauna	13
Invasive Species	16
Conclusions and Recommendations	16
Ecological Enhancement	17

Summary

Purpose of report

This report is produced to present an initial assessment of a Site currently occupied by Lidl at Station Road, Mirfield, to inform the Site's potential for development.

The report has been prepared to advise the client of potential ecological constraints and opportunities, in preparing an application for planning permission.

The report provides a sufficient baseline for the Site, and is suitable in its current form for submission to planning.

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 May 2017.

Findings Key-Points

The Kirklees Wildlife Habitat Network (KWHN) encompasses the canal along the southern boundary but does not appear to extend into the boundaries of the Site. Efforts should be made to prevent excessive lighting of this feature and planting native trees could serve to enhance it.

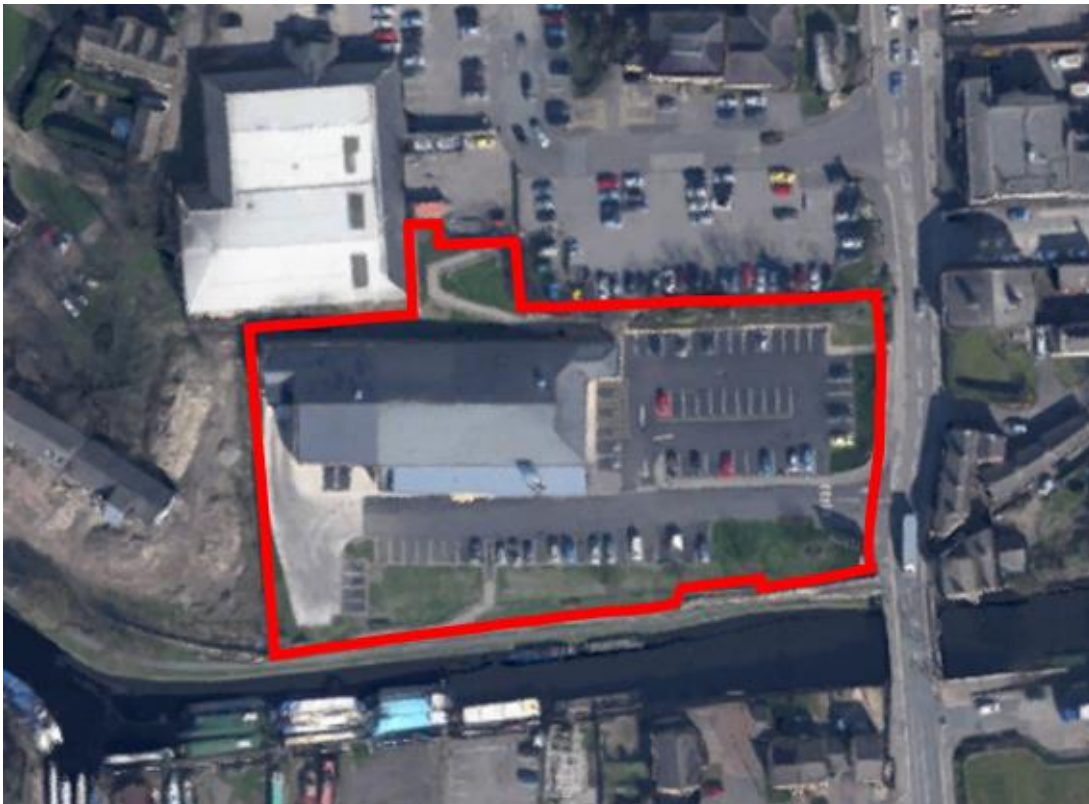
Introduction

1. Brooks Ecological Ltd was commissioned by JRP Associates to carry out a Preliminary Ecological Appraisal of land at Station Road, Mirfield (Grid Reference: SE 20311966).
2. This report is produced with reference to British Standard BS42020 'Biodiversity Code of Practice for Planning and Development' and the CIEEM (2013) Guidelines for Preliminary Ecological Appraisal.

Scope

3. The application site 'the Site' is on the footprint of the existing Lidl supermarket. It is defined in figure 1 below.
4. 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



Proposals

5. The proposal is to construct 91 apartments and a community building as illustrated in figure 2 below.

Figure 2 Proposed development taken from JRP Associates drawing number 16-4981-SK10 dated November 2016.



Site context

6. The Site is located on the southern edge of Mirfield town centre, a small town located between Dewsbury 3.8km to the east and Huddersfield 5.5km to the south west. Further south the landscape opens into countryside primarily consisting of pasture dotted with some sizeable woodlands.
7. Immediate boundaries include Station Road to the east, commercial development to the north and an apparently cleared development plot to the west. A canal cutting is present along the southern boundary.

Wildlife corridors

8. A canal, known as the Calder and Hebble Navigation Mirfield Cut, passes along the Site's southern boundary. This is included within the Kirklees Wildlife Habitat Network. This links to the River Calder c. 200m to the west and again c. 1.3km to the east, acting as another strong habitat corridor in the area. A railway moving east–west through the area makes up a third habitat corridor.

Figure 3 Analysis of wildlife corridors & higher value habitat in relation to the Site.



Water bodies

9. No ponds are shown on mapping within 500m of the Site though the canal passes along the southern boundary. This is discussed in relation to its ability to support amphibians in the faunal section.

Designated Sites

Statutory Designations

10. A search has been made to identify any nationally designated sites within a 2km radius of the Site, and for internally 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
Sunny Bank Ponds	2km	Local Nature Reserve (LNR)	Park area with mature trees and wetland areas. Ponds supporting larger numbers of smooth newt, frog and toad.

11. There are no internationally designated sites within a 10km radius of the Site.
12. Impacts upon Sunny Bank Ponds LNR would not be expected due to the distance and separation from the Site by development.

SSSI Impact Risk Zones (IRZs)

13. The Site lies within the 8km IRZ for Denby Grange Colliery Ponds SSSI, but does not fall into one of the highlighted categories which requires consultation between the Local Planning Authority (LPA) and Natural England (NE). The development is of a scale and nature which is unlikely to impact on this SSSI.

Non-Statutory Designations

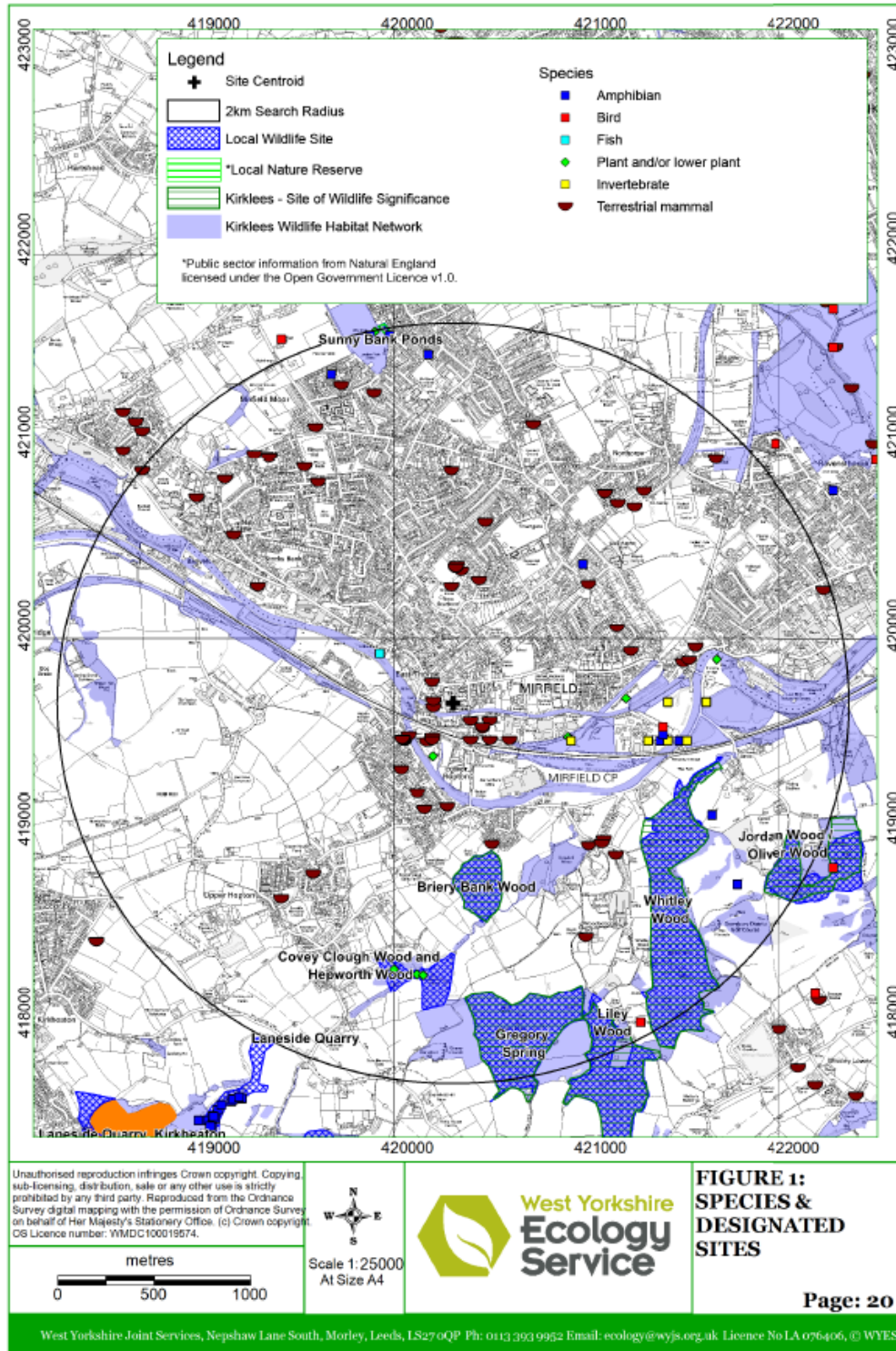
14. There are eight locally designated sites within 1km of the Site, these consist of Local Wildlife Sites (LWS) and Sites of Wildlife Significance (SWS).
- Briery Bank Wood is an LWS and SWS c. 800m to the south of the site.
 - Gregory Spring LWS and SWS is c.1.5km to the south.
 - Liley Wood LWS and SWS 1.7km south.
 - Whitley Wood LWS and SWS 1.2km south east
 - Covey Clough Wood & Hepworth Wood LWS 1.3km to the south
 - Jordan Wood & Oliver Wood LWS and SWS 1.9km south east.
 - Sunny Bank Ponds LWS and SWS 2km to the north.
 - Laneside Quarry LWS 2km to the south west.

15. Given the nature of the proposals and the distance from the development Site impacts related to development would not be expected.

Kirklees Wildlife Habitat Network

16. The Kirklees Wildlife Habitat Network (KWHN) encompasses the Calder and Hebble Navigation Mirfield Cut canal along the southern boundary but does not appear to extend into the boundaries of the Site. However, efforts should be made to minimise impacts on the habitat corridor and there is scope within the plans to plant trees along the Site boundary with the canal reducing impacts of development on the canal. Further efforts should incorporate the use of a sensitive lighting plan to reduce impacts on nocturnal animals such as bats using the canal this is described in detail in the conclusions section.

Figure 4 Locally designated sites provided by West Yorkshire Ecology.



Habitats

Method

17. The survey was carried out during May 2017¹ and followed Phase 1 habitat survey methodology (JNCC, 2010).

Limitations

18. Sufficient time was afforded the surveyor to carry out the survey. The survey was carried out in heavy rain but this is not considered a constraint.

Results

19. The Site is occupied by a busy Lidl with associated carparking and landscaping.



Figure 4

Overview of the Site with store, carpark and landscaping.

20. The following habitats were identified within the Site and on its immediate boundaries:

- Hardstanding
- Building
- Amenity Landscaping

¹ This Report has been prepared during June 2017 following a visit to the site in May 2017 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.

Hardstanding

21. The majority of the Site is taken up with a large car park, this is well used and lacking vegetation.



Figure 5

Car park.

Buildings

22. A large new build supermarket building occupies a large area, this is of stone construction with a mixed flat metal roof and slate roof. The buildings potential to support bat roosting is described in detail in the faunal appraisal section.



Figure 6

Supermarket.

Amenity Landscaping

23. Amenity grass occupies most of these areas this is well managed and dominated by meadow grasses (*Poa* sp.) with red fescue (*Festuca rubra*) and perennial rye grass (*Lolium perenne*) also abundant. A small number of forbs are present including white clover (*Trifolium repens*), dandelion (*Taraxacum agg.*), daisy (*Bellis perennis*), buttercup (*Ranunculus repens*) and ribwort plantain (*Plantago lanceolata*). This area is also planted with four young cherry (*Prunus* sp.) trees. A small seemingly less well managed area is present along the canal and supports a more diverse array of forbs, suggestive of a neutral grassland including: knapweed (*Centaurea nigra*),

ragwort (*Senecio jacobea*), red clover (*Trifolium pratense*), yarrow (*Achillea millefolium*), broad leaved dock (*Rumex obtusifolius*) and ox-eye daisy (*Leucanthemum vulgare*).

24. A band of tree planting is present along the northern Site boundary. This is off Site but supports a number of overhanging early mature tree species and shrubs including ash (*Fraxinus excelsior*), sycamore (*Acer pseudoplanatus*) and horse chestnut (*Aesculus hippocastanum*) with cotoneaster also noted



Figure 6

Landscaping along the canal.

Off-site Habitats

Calder and Hebble Navigation Mirfield Cut

25. The Calder and Hebble Navigation Mirfield cut is a canal running along the southern boundary. This did not appear to support any significant amounts of aquatic vegetation, whilst the banks are well developed supporting minimal vegetation. The canal appears well used by pedestrians and boats.



Figure 7

Calder and Hebble Navigation Mirfield Cut.

Habitats Summary

26. The Site supports a limited number of frequently disturbed common and ubiquitous habitats of negligible ecological value.

Fauna

Bats

27. A total of 109 records have been returned for the area, of a variety of species including; brown long eared, common pipistrelle, soprano pipistrelle, noctule, leisler's, natterer's and general vespertilionidae records. Thirty-six of the records are of roosts the nearest of which is c.80m north west at St. Paul's Church and relates to an individual of an unknown species. The remaining roost records are of similar small roosts throughout Mirfield.
28. The Site is well lit by car park flood lights and supports minimal value habitat for this species.
29. The site's suitability for roosting bats has been assessed against the criteria set out in the table below.

Table 2 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.

30. The supermarket building has a slate roof for the most part with a small area of flat metal roof. Often in such buildings roofs are supported by an open internal metal structure though this was not visible during the survey. Such structures are generally considered unsuited to roosting due to a lack of suitable crevices internally. The slate roof is well sealed but with a small number of slightly lifted slates, considered highly unlikely to offer suitable roosting opportunities.



Figure 8

Slate roof and flat roof in foreground.

31. Large metal soffit boxes are present where the walls meet the roof of the building. These are well sealed in most places with a single narrow gap present in one area along the flat roof section, potentially allowing access to the interior. Given the well-lit exterior, likely open interior lacking crevices and the metal construction giving poor thermal stability, this is considered unlikely to be of use to roosting bats.



Figure 9

Showing narrow gap along soffit.

32. The stone walls of the building are well sealed and overall the building is considered to be of *Negligible* suitability to support roosting bats.

Amphibians

33. There are a small number of records of common frog, common toad, smooth and palmate newts in the Study Area. There are three records of great crested newt, located c. 2km north at sunny bank ponds and c. 1.2km to the east.
34. No waterbodies suited to amphibian breeding were found on Site. The canal along the southern boundary is considered highly unlikely to be suited to supporting amphibians, especially great crested newt due to it being directly connected to the

River Calder and likelihood of supporting large numbers of fish alongside wildfowl noted on Site.

- 35. Terrestrial habitat on Site is highly unsuited to supporting amphibians begin limited to small areas of amenity grassland.
- 36. It is anticipated that development can proceed with minimal risk of impacting upon amphibians including great crested newt.

Birds

- 37. Only two bird records have been returned these being of brambling and kestrel both of which are highly unlikely to be present on the Site. It is likely that a range of common garden birds and wildfowl will make use of the Site though are unlikely to be reliant upon it.

Water Vole

- 38. No records have been returned of this species and the canal sides largely constitute unsuitable habitat being made of large stones and being developed up to the bankside on the opposite banking. Impacts upon this species can be ruled out.

Otter

- 39. There are no records of this species despite the presence of considerable suitable habitat in the wider area. The Site and canal side are well disturbed and though otter may pass through along the canal, development is considered highly unlikely to impact upon this species and may benefit it if a suitable lighting plan is implemented.

White Clawed Crayfish

- 40. There are no records of any crayfish species within the canal and given the nature of development set back from the canal with a small buffer area, impacts are considered highly unlikely.
- 41. Despite this some precautions should be put in place during the development to reduce the risk of pollution or Site run-off entering the canal. This should include storing chemicals away from the canal in bunded areas. The Site's CEMP should be followed to reduce the risk off run-off and pollution of the canal during construction to the benefit of aquatic species.

Invasive Species

Cotoneaster

42. Cotoneaster was found in the locations marked indicatively on plan D-2894-01.1. Whilst listed on Schedule 9 of the Wildlife and Countryside Act (1981) (as amended), this species is not considered to present a significant risk in this location. Whilst we are not aware of specific guidelines relating to the disposal of this plant it would be a sensible precaution to dispose of it through burning on Site or disposal at an approved landfill. The plant, its berries or seeds should not be buried, mulched or added to rot piles as this is likely to lead to its spread.

Conclusions and Recommendations

43. The Site supports a limited number of common and highly disturbed habitats of limited ecological value. Development is considered highly unlikely to impact upon protected or notable species.
44. The canal offsite represents habitat of greater ecological value. It is anticipated that development can proceed without detrimental impacts on this feature given some standard precautions and taking into account its inclusion within the Kirklees Wildlife Habitat Network.
45. The KWHN seeks to maintain and enhance habitat corridors across Kirklees and West Yorkshire. Currently the Site is well lit by security lighting which likely spills out on to the canal reducing its' function as a corridor for nocturnal species such as bats. Though not within the KWHN, an appropriate enhancement of the Site would be the implementation of a sympathetic lighting plan which demonstrates that light spill onto the canal will be minimised. This should include implementing the following (Stone, E.L. (2013):
 - Use of narrow spectrum lights with no UV or warm white light;
 - Direct lighting downwards;
 - Use of low level lighting (e.g. 2m high lighting columns);
 - Use of hoods and cowls to direct lighting onto required areas and not onto adjacent habitats;
 - Restrict hours of light.
46. Currently a small strip of grassland with some trees is present along the canal. There is scope within the plans to retain a small buffer strip along the canal and expand along the western boundary, which will also benefit the KWHN. To maximise benefits, this area should be planted with native trees, with suitable species including alder (*Alnus glutinosa*) or silver birch (*Betula pendula*). Additionally, for further

enhancement a strip of grassland could be sown with a suitable wildflower mix such as Emorsgate EM1 or EM8 and managed to allow wildflower proliferation.

Ecological Enhancement

47. The requirement for development to make a positive contribution to biodiversity is clearly set out in guidance such as the NPPF and BS:42020 - beyond mitigating or compensating any potential impacts.
48. The following themes provide opportunities for the proposals to deliver such a contribution:
 - An array of bat and bird boxes should be incorporated into the structure of new buildings. For bats this may include Ibstock bat bricks or Schwegler 2FE wall mounted bat shelters. Whilst for birds suitable boxes may include Schwegler sparrow terrace 1SP, Schwegler brick box type 25 or brick box type 24.
 - Shrub beds could be planted with species of proven wildlife value.

Appendices

1. Extended Phase 1 Habitat Plan
2. Explanatory Notes and Resources
3. Bat Activity Survey Rationale
4. Information on legislation / protection

References

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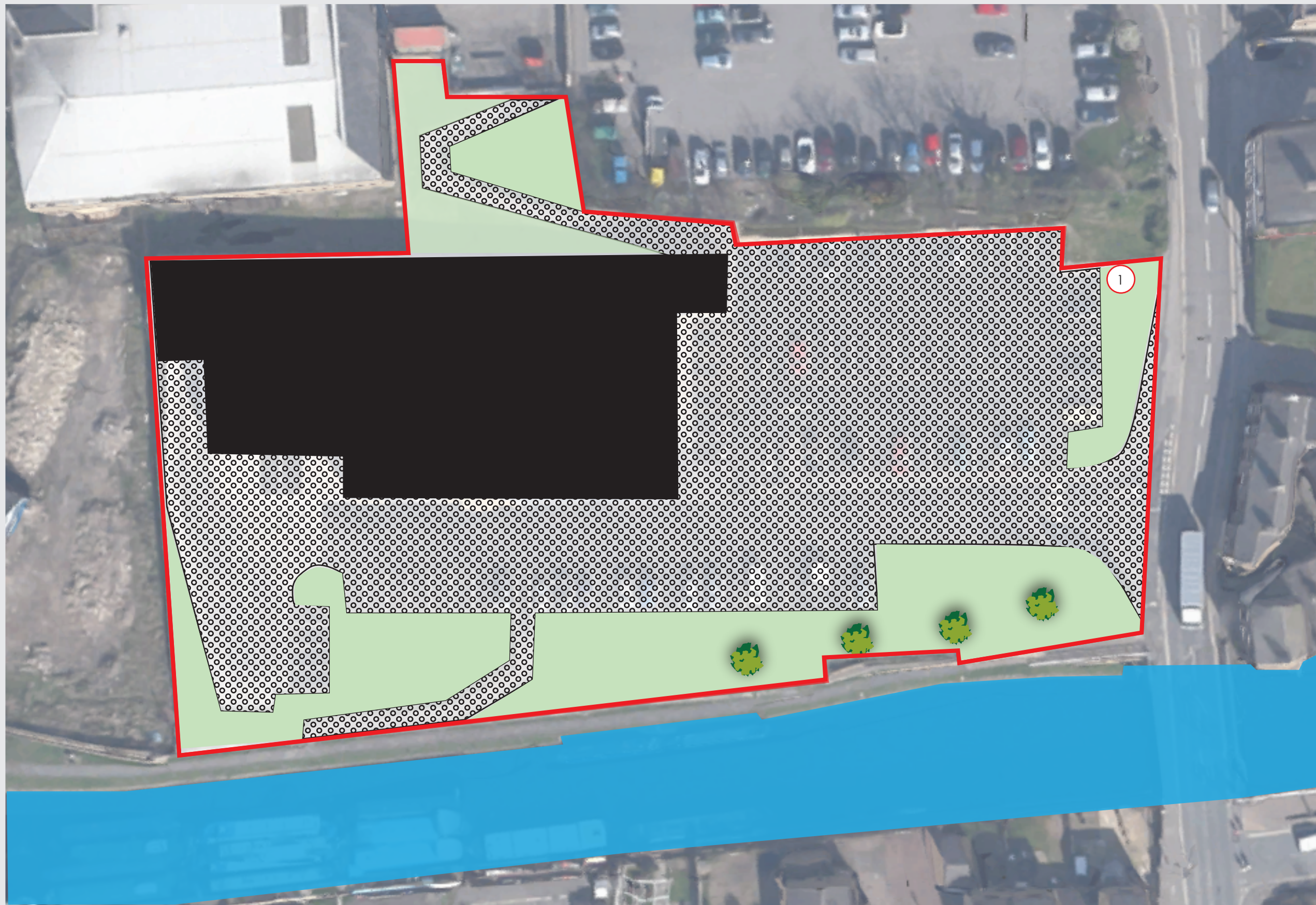
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Appendix 1 – Extended Phase 1 Habitat Plan



-  Buildings
-  Hardstanding
-  Amenity Landscaping
-  Canal
-  Trees

Target notes:

-  Cotoneaster

Project: Station Road, Mirfield

Title: Extended Phase 1 Habitat Plan

Drawing Number: D-2894-01.1

Scale: Do not scale Date: June 2017

Revision:



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. We use Promap Street + scale maps for this purpose.

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.

Kirklees Wildlife Habitat Network

The Kirklees Habitat Network is referred to in Policy DLP 31:Section 12.1 – so is afforded a level of protection - but this should be in relation to being able to maintain physical linkages for wildlife.

Policy DLP 31[View Comments \(30\)](#)[Add Comments](#)**Biodiversity & Geodiversity**

The council will seek to protect and enhance the biodiversity and geodiversity value of the range of international, national and locally designated wildlife and geological sites, the Wildlife Habitat Network, Habitats and Species of Principal Importance in Kirklees.

Proposals which may directly or indirectly compromise achieving the conservation objectives of a designated or candidate European protected site will not be permitted unless the proposal meets the conditions specified in Article 6 (3) - (4) of the Habitats Directive.

Development proposed within or outside a designated Site of Special Scientific Interest, likely to have an adverse effect on the site's special conservation features, will not normally be permitted. Exceptionally, development will be allowed where the benefits of the development clearly outweigh the impacts on the site's special conservation features and measures are provided to mitigate harmful impacts.

Proposals having an adverse effect on a Local Wildlife Site or Local Geological Site, Ancient Semi-natural Woodland, Veteran Tree or other important tree, will not be permitted unless the development can be shown to be of an overriding public interest and there is no alternative means to deliver the proposal. In all cases, full compensatory measures would be required and secured in the long term.

Proposals will be required to protect the Wildlife Habitat Network, Habitats of Principal Importance, Species of Principal Importance unless:

- a. the benefits of the development clearly outweigh the importance of the biodiversity interest; and
- b. the loss of the site and its functional role within the Wildlife Habitat Network can be fully maintained or compensated for in the long term; and
- c. compensatory measures will be secured through the establishment of a legally binding agreement.

All new development shall be designed to incorporate and enhance biodiversity and geodiversity interest where relevant to these interests. Proposals shall safeguard, enhance and develop a robust and functional Wildlife Habitat Network at a local and wider landscape scale. Biodiversity enhancement measures shall be designed to reflect the priority habitats and species listed for the relevant Biodiversity Opportunity Zone.

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 2012).

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 1-2km area of search 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.

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

Consideration is given to the Local Biodiversity Action Plan (LBAP), which for this site is the 'Kirklees Biodiversity Action Plan'.

Species/group	Habitat
Floating water plantain	Semi-natural pasture
Great-crested newt	Lowland and upland meadows
Marsh helleborine	Lowland dry acid grassland
Northern wood ant	Blanket bog
Twite	Upland heathland
Wolverine	Upland flushes
White-clawed crayfish	Lowland heathland
	Upland oak woodland
	Lowland deciduous and other woodland
	Upland mixed ashwoods
	Wet woodland
	Arable field margins
	Hedgerows
	Rivers, riverine corridors and associated habitats
	Reedbeds
	Scrub and habitat mosaics on previously developed land

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, it is felt that bat activity transects are unlikely to give any additional useful information due to the well-lit nature of most of the current Site area severely reducing its value to bats.

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 published on 27 March 2012 replacing the majority of previous Planning Policy Guidance notes (PPGs) and Planning Policy Statements (PPSs). The most relevant paragraphs from the NPPF are set out below.

The general approach to assessing the natural environment is now embedded within the definition of what 'sustainable development' is. Paragraph 7 (P7) of the NPPF states that sustainable development should "contribute to protecting and enhancing our natural environment" and "help to improve biodiversity". There is also a need for positive inclusion of the natural environment in development design and "moving from a net loss of bio-diversity to achieving net gains for nature" (P9). P14 sets out the Framework's presumption in favour of sustainable development.

The natural environment is stated within the NPPF core principles: development should "*recognise the intrinsic character and beauty of the countryside*" and contribute to conserving and enhancing the natural environment and reducing pollution. Allocations of land for development should, "*prefer land of lesser environmental value, where consistent with other policies in this Framework*" (P17).

Section 11 of the NPPF details the approach to the natural environment. The Framework states that development should "*minimise impacts on biodiversity and provide net gains in biodiversity, where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*" (P109).

The Framework sets out ways to minimise the impacts on biodiversity through "*promoting the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets*" (P117).

The NPPF requires the consideration of the impacts of development on the natural environment. The Framework also encourages "*opportunities to incorporate biodiversity in and around developments*" (P118). Importantly this paragraph (P118) sets out the hierarchy of avoiding, mitigating and compensating harm from development - plans should ensure that they can demonstrate engagement with this hierarchy when required.

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

This strategy builds on the Natural Environment White Paper (June 2011) - The Natural Choice: securing the value of nature. 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.