



Hull

City Council

Supplementary Planning Document (SPD) 12

Ecology and Biodiversity

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1.0 Introduction

- 1.1 This Supplementary Planning Document (SPD) acts as guidance to policies in the Hull Local Plan 2016 to 2032, adopted in autumn 2017. The Local Plan is a 20 year document which sets out the vision for growth in Hull. It identifies the quantity and location for new housing, community facilities, shops and employment provision. This document provides planning guidance on Policy 44 - Biodiversity and Wildlife, giving advice as to how the impacts on ecology and biodiversity should be addressed via the planning process and how links between sites can be conserved and enhanced through the development process addressing both statutory duties and social responsibilities.
- 1.2 The Ecology and Biodiversity SPD sets out Hull City Council's approach for achieving positive gains for nature, with a minimum standard of no net loss within development sites. This is achieved by encouraging green and blue spaces within development sites, including trees, parks, sustainable drainage features and a network of open green space along linear features such as watercourses and dismantled railway lines.
- 1.3 The SPD contains guidelines for how developers should approach brown field and green field sites and spaces. Due to Hull's tight boundaries and relatively dense urban development the natural environment plays an important role for both wildlife and people. The guidelines provide instructions on the requirements for the provision of bat and bird boxes which are to be built into new dwellings, to make sure that the built environment makes space for nature. It also sets out more clearly the quality of ecological reporting which we expect, including the requirements of the British Standard for Biodiversity, BS:42020.
- 1.4 This guidance seeks to emphasise the importance of adopting a positive approach to biodiversity protection and enhancement, and sets out the key considerations relating to wildlife and biodiversity that should be taken into account in development proposals.
- 1.5 The guidance aims to:
 - provide clarity to developers, statutory consultees, local residents and other stakeholders;
 - Minimise the cost to development and streamline the application process by ensuring nature conservation implications are factored in at the earliest stages, are as predictable as possible, and that only relevant development proposals are affected;
 - Ensure that planning decisions maintain, restore and enhance biodiversity in Hull;
 - Ensure that the key principles of national planning guidance on biodiversity and nature conservation are fully met at a local level;
 - Ensure best practice is followed consistently, reducing the likelihood of a planning appeal or legal challenge
 - Integrate Hull's Local Biodiversity Action Plan into the planning process and identify pathways for delivery and
 - Give confidence to stakeholders that decisions and proposed actions involving biodiversity conservation are transparent, fair, adequate and legally sound.

2.0 Definitions and Standards

- 2.1 Biodiversity is defined by the UN Convention on Biological Diversity as “the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems”. The National Planning Policy Framework (2012) (NPPF) states that planning should “minimise impacts on biodiversity and provide net gains in biodiversity where possible”.
- 2.2 The NPPF describes green infrastructure as “a network of multi-functional green space that is capable of delivering a wide range of environmental and quality of life benefits for local communities”. Benefits that green infrastructure can deliver include: improving health and wellbeing; enhancing biodiversity; helping to mitigate and adapt to climate change; providing business and educational opportunities; encouraging tourism; and promoting sustainable use of land resources.

3.0 Planning Context

- 3.1 Hull City Council as a Local Planning Authority (LPA) has a statutory obligation to consider impacts upon protected habitats and species resulting from development. The NPPF is the primary scheme by which the Government’s planning policies for England are set out and how they should be applied. Whilst NPPF superseded Planning Policy Statement 9 (PPS9), the Government Circular 06/05 on Biodiversity and Geological Conservation remains extant.
- 3.2 The Government Circular 06/05 places a Statutory Obligation on LPAs and sets out how ecological surveys need to be considered within the planning application process. Paragraph 99 of the circular sets out the need for protected species surveys and the reasons why surveys cannot be conditioned as part of a planning consent. It makes it clear that planning permission will not therefore be granted without all the required ecological surveys being submitted unless there are exceptional circumstances. What constitutes “exceptional circumstances” is detailed in BS42020:2013 (see also section 4.3).

“It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted.”

- 3.3 Supporting survey information for a planning application is often needed to allow an appropriate assessment of the site’s ecology to be undertaken to allow:
- Effective decision making;
 - Compliance with statutory obligations and policy requirements;
 - Achievement of desired outcomes and

- Successful implementation of practical conservation and enhancement measures during development.

3.4 Some forms of development do not require planning permission. Permitted development, such as the demolition of properties and renovation of disused buildings has the potential to directly impact on protected species. In these cases, permitted development legislation does not override protected species legislation, and an ecological assessment will be required to assess the impact on protected species and the design of any mitigation and enhancement as necessary. Even when developments benefit from permitted development rights, the legal protections for wildlife still apply and the land owner must consider whether the development is likely to have significant effects on a European Protected Species having regard to the requirements of their duty in regards to regulation 9(3) of The Conservation of Habitats and Species Regulations 2010 as amended.

4.0 Legislative Background

4.1 There are a series of acts and regulations that together provide different degrees of protection to a variety of sites, flora and fauna including the habitat on which they depend and geological features. They include but are not limited to:

- The Conservation of Habitats and Species Regulations 2010
- Wildlife and Countryside Act 1981 (as amended)
- Natural Environment and Rural Communities (NERC) Act 2006
- Environmental Impact. Assessment Regulations 2017
- Countryside and Rights of Way Act 2000
- Protection of Badgers Act 1992
- Hedgerow Regulations 1997

4.2 Section 40 of the NERC Act states that every ‘public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Conserving biodiversity includes, in relation to a living organism or type of habitat, restoring or enhancing a population or habitat’.

4.3 BS 42020:2013 Biodiversity - Code of practice for planning and development sets out best practice standards for ecology in the planning process. The standards set a benchmark for the standards required from pre application to post construction monitoring and cover a variety of topics including assessment, reporting, decision making and construction. The BSI (2013) state that the standard ‘seeks to promote transparency and consistency in the quality and appropriateness of ecological information submitted with planning applications and applications for other regulatory approvals’. Hull City Council will take into account the Standard and would highly recommend those in the planning, development and environmental sector to work to the guidelines. One of the recommendations to arise from the Biodiversity Standards is an Ecological Constraints and Opportunities Plan (ECOP) in an urban area such as Hull where protected species issues are uncommon the ECOP provides a fast and affordable method of detailing the net balance of biodiversity loss and gains; examples can be seen in the Appendices to this document.

4.4 Government Circular 06/05

4.4.1 The document 'Biodiversity and Geological Conservation – Statutory obligations and their impact within the planning system' was originally released as a companion to PPS9; the document provides guidance on the application of the law relating to planning and nature conservation in England. Whilst some of the details within the report are now out of date, it provides information on the implications of internationally designated sites, habitats and species outside of designated sites. Defra is currently working on new guidance but in the interim the circular remains in place.

4.5 Natural England's Standing Advice

4.5.1 Natural England provides a range of advice leaflet and guidance notes with regards to wildlife and conservation practices; they also provide standing advice on a range of matters including protected species, ancient woodland and veteran trees. Standing Advice is provided to avoid the need to consult with Natural England in commonly encountered situations. Standing Advice is a material consideration in the determination of planning applications and gives advice about when surveys for protected species. Of relevance, it states that the LPA should only ask an applicant to carry out a survey if there is a reasonable likelihood of protected species being present on the site, or affected by the development. It also sets out the requirement for the planning authority to assess the effectiveness of the mitigation proposals, with Natural England's advice if needed.

5.0 Hull Local Plan Policy

5.1 Policy Wording

Policy 44: Biodiversity and wildlife

Policies map

1. Wildlife designations within the city boundary are shown on the Policies Map. This includes the Humber Estuary International Site (Ramsar, SPA, SAC and SSSI), Local Nature Reserves (LNR), and sites likely to qualify as Local Wildlife Sites (LWS). Allocations within the Kingswood area are made within the Kingswood Area Action Plan.

European sites (Ramsar, SPA, SAC)

2. Development that may affect an existing or proposed European or Ramsar site should demonstrate through a Habitats Regulations Assessment that any impact will be acceptable. This will need to consider the impact of the scheme both on its own and in combination with other schemes that already have planning permission. Development will not be permitted if it is likely to result in a significant adverse impact unless there is an imperative reason of over-riding public interest.

National sites (SSSI)

3. Natural England will be consulted on proposals for development that are likely to have an effect on a SSSI. Development that will have a negative effect will not normally be permitted, except where the benefits of development substantially outweigh both the impact on the site and any broader

impacts on the wider network of National Sites. In such cases, compensation for the harm will be required.

Local sites (LNR, LWS)

4. Development resulting in the loss or significant harm to a Local Wildlife Site or Local Nature Reserve will only be permitted if it can be clearly demonstrated there is a strong need for the development, and that there are no other appropriate locations for the development. Where loss or harm cannot be prevented or adequately mitigated, as a last resort, appropriate compensation for the loss/ harm must be agreed.

5. Until formally reviewed, an open space site will be afforded the same level of protection as a Local Wildlife Site if it meets the Council's LWS selection criteria.

Protected species

6. Development adversely affecting a species protected by legislation will not be allowed.

Promoting biodiversity improvements

7. Development should seek to achieve a net gain in biodiversity habitat commensurate with the scale of the development, and schemes will be supported where they:

a. Conserve, restore, enhance or re-create biodiversity interests, particularly national Priority Habitats and Species and locally important habitat and species identified in the Hull Biodiversity Action Plan.

b. Safeguard, enhance, create and connect identified habitat networks in order to:

- i. protect, strengthen and reduce fragmentation of habitats;
- ii. create a coherent ecological network that is resilient to current and future pressures;
- iii. conserve and increase populations of species; and
- iv. promote and enhance green infrastructure.

5.2 Policy 44 (2) - European Sites (Ramsar, SPA, SAC)

5.2.1 The Humber Estuary Special Protection Area (SPA), Special Conservation Area (SAC) and Ramsar is the only European Site falling within Hull City Council's planning jurisdiction. Habitats of note falling within Hull City Council's boundary includes estuaries, intertidal mudflats, pioneer saltmarsh vegetation and Atlantic salt meadows. Species of note include sea lamprey, river lamprey, grey seal and a broad array of birds species covered by the SPA and Ramsar designation including the regularly encountered redshank, turnstone, curlew, oystercatcher and mallard.

5.2.2 The Humber Estuary its habitats and species are of international nature conservation importance. Development proposals with potential to affect the Humber Estuary require consultation with Natural England and have to be assessed under the Habitats Regulations. This process is called a Habitats Regulations Assessment (HRA) and requires often detailed information to be provided so that the local planning authority can determine the scale and detail the impact of the proposal. If a likely significant effect cannot be ruled out an Appropriate Assessment (AA) will have to be undertaken.

5.2.3 Where the AA cannot determine that the proposal will not have an adverse effect on integrity, the proposal should be refused, however, if there is no alternative solution and

there are imperative reasons of overriding public interest for the project, the application will be referred to the Secretary of State. If the authority and/or the Secretary of State is minded to approve any proposals, even with consideration of their adverse effect, compensatory measures to protect the site must be put in place, in consultation with Natural England.

- 5.2.4 Key issues of relevance to the Hull-Humber frontage and impacts on the Humber Estuary sensitive species and habitats have been identified through the Habitat Regulations Assessment process relating to the Local Plan. Areas where issues have been identified cover:
- recreational disturbance and dog walking impacts on SPA birds including the requirement for facilities for dog walkers in public open space across the city;
 - air quality impacts related to increases in traffic on the strategic network;
 - noise and visual disturbance to SPA birds;
 - loss of SAC habitat;
 - localised construction related impacts including dust and noise;
 - Pollution prevention and control in sites upstream of the Humber Estuary; and
 - Impacts on SPA birds through the erection of wind turbines.

5.3 Policy 44 (3) - National sites (SSSI)

- 5.3.1 The Humber Estuary is also listed as a SSSI with component habitats covering estuary, intertidal mudflats and sandflats and coastal saltmarsh. The estuary supports nationally important numbers of 22 wintering waterfowl and nine passage waders, and a nationally important assemblage of breeding birds of lowland open waters and their margins. It is also noted as being nationally important for river lamprey and sea lamprey, a vascular plant assemblage and an invertebrate assemblage.
- 5.3.2 Development proposals with potential to affect a SSSI require consultation with Natural England. For sites directly impacting SSSI permission is required from Natural England.

5.4 Policy 44 (4 and 5) - Local Sites Local Nature Reserves (LNR) and Local Wildlife Sites (LWS)

- 5.4.1 These sites are protected from development; the Local Authority is responsible for LNRs. Hull currently has two LNRs; Noddle Hill and Rockford Fields. Local Wildlife Sites are of local value for their wildlife interest. As per policy 44, until formally reviewed, an open space site will be afforded the same level of protection as a Local Wildlife Site if it meets the Council's LWS selection criteria.
- 5.4.2 Development likely to adversely affect features locally designated sites of biodiversity interests will only be permitted where there are no suitable alternative sites, impacts are unavoidable and there is full provision for habitat re-creation and management.
- 5.4.3 Hull City Council is developing draft Local Wildlife criteria and selection guidelines based on the presence of habitats and species considered locally important. Where there may be

potential impacts on LWS ecological surveys should provide enough information for a detailed assessment against the guidelines.

- 5.4. Hull's local geological sites are recorded by the Hull Geological Society via the East Yorkshire RIGS (Regionally Important Geological Sites) Group. All sites are urban in nature and are designated for their educational value.

5.5 Policy 44 (6) European Protected Species (EPS)

- 5.5.1 The presence of protected species is a material consideration in the planning decision making process. Hull City Council as the LPA has a duty to ensure that in granting planning permission harm to a protected species or its habitat are avoided. Where appropriate, in order to be valid, planning applications must contain sufficient details relating to protected species habitats and details of proposed mitigation. This will allow the LPA to make an informed decision on impacts on protected species. Once planning permission is granted, the developer has a duty to comply with protected species legislation.
- 5.5.2 EPS of relevance to Hull include bats, great crested newt and otter. Further details on when a protected species survey assessment is required are detailed in Appendix A.

5.6 Policy 44 (7) Biodiversity Enhancements

- 5.6.1 Biodiversity Action Plans (BAPs) detail national and local priority habitats and species for conservation. The Local Authority has a duty to conserve principle species and habitats in line with Section 74 of the CRoW Act (2000). Development must avoid adverse impacts on BAP habitats and species, Species of Principle Importance under the NERC (2006) Act and Red Data Book. Where adverse impacts are not avoidable habitats and species must be conserved and protected through mitigation, compensation and enhancement measures.
- 5.6.2 The Hull Biodiversity Action Plan (2002) identifies the important habitats in Hull and a range of species for which targeted action can be carried out locally. This document should be considered along with a list of the UK habitats and species of principle importance that occur within the city. Sites that are likely to contain these species, include trees/woodland and buildings (bats), ponds (great crested newts and other amphibians), and ditches, rivers and drains (otters, water voles, migratory fish).
- 5.6.3 Developments are expected to maximise opportunities to safeguard biodiversity and geodiversity with the expectation that the project should deliver enhancements that provide a net gain in biodiversity. Best practice examples can be found in Planning for a Healthy Environment - Good Practice Guidance for Green Infrastructure and Biodiversity (2012) and Homes for people and wildlife - How to build housing in a nature-friendly way (2018). The design and landscaping of new development should aim to retain existing biodiversity features, as well as provide opportunities for additional or enhanced biodiversity. Proposals should also consider the potential to deliver a net gain in biodiversity as per Policy 44(7). See section 6.2 - 6.4 for how enhancement should be delivered and Appendix C for further guidance on locally recommended enhancement measures.

5.7 Invasive Species

- 5.7.1 Schedule 9 of the WCA makes it an offence to spread, or cause to grow, certain non-native invasive species (NNIS). The list includes Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, parrot's feather *Myriophyllum aquaticum*, New Zealand pygmy weed *Crassula helmsii* and azolla *Azolla filiculoides*. Where development proposals are likely to impact on or result in the spread of NNIS control and eradication measures need to be in place before development can commence.

6.0 Development Processes

6.1 Benefits of Integrating Biodiversity Features into the Scheme

- 6.1.1 There is widespread acceptance that the integration of natural features into developments can result in a range of social, environmental and economic benefits for the developer, local community, residents and/or workforce (Defra, 2011 and Wildlife Trusts, 2018). Biodiversity should be viewed as an opportunity to provide a desirable scheme and not a hindrance. This approach improves air quality, reduces surface water flooding and makes developments greener and more attractive places to live and work. Landscaping can provide for both amenity and biodiversity with careful design.

6.2 Surveys

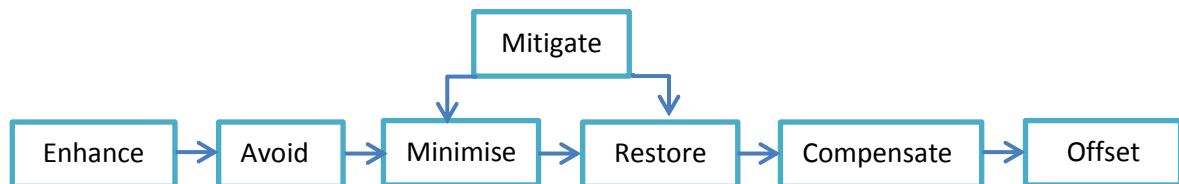
- 6.2.1 Where an application potentially affects wildlife or biodiversity a detailed survey report that has been undertaken within the last two years is required in support of the application, Applications must be supported by a desk top study of the geological interest or ecological records from the North and East Yorkshire Ecological Data Centre (NEYEDC). Data collected during surveys should be made available to data to the local records centre.
- 6.2.2 It is necessary for developers to gather information to assess the biodiversity value of the proposed development site and its immediate surrounding area including details on the presence or absence of protected species for major and large developments and for sites which contain areas with natural habitats. The presence of features such as trees, hedgerows, old buildings, ponds etc. which are likely to support wildlife indicate the need for a survey. If a survey is then needed, the level of data required and the time taken to collect it will vary according to the size of the development and the habitats and species concerned. There are certain times of year when surveys are best conducted for different species and this needs to be taken into account (see Appendix B).
- 6.2.3 Ecological appraisals should be proportionate to the nature and scale of the development proposals. Methodology should be consistent with best practice guidelines such as those provided by the Chartered Institute of Ecology and Environmental Management (CIEEM)

which set out minimum standards and should be carried out by suitably qualified and experienced ecologists.

- 6.2.4 If an application is submitted on a site with a biodiversity interest without a survey then the LPA will normally request one to be carried out prior to the decision being made and this may delay an application. Note that your application will often be validated so that an assessment of your application can be made by the case officer and/ or the ecologist. You should not therefore assume that because your application has been validated that there will not be any further queries or requests for information regarding ecology.

6.3 Mitigation Hierarchy

- 6.3.1 Development should aim to integrate biodiversity features into the development design and how the scheme impacts on the green network. The scheme should follow the mitigation hierarchy.



- 6.3.2 There is often potential to move the site boundary or alter the design of the scheme to avoid damaging a particular habitat feature, or it may be possible to carry out works at a time of year when sensitive species are unlikely to be present. Where this is not possible, it will be necessary to mitigate or, as a last resort, compensate for loss or damage. A mitigation/compensation plan should be prepared setting out the:

- mitigation/compensation objectives
- details of mitigation/compensation ensuring no net loss of biodiversity
- monitoring and maintenance regime, including timescales.
- details of funding to ensure the long term sustainability of the scheme.

Once approved, the mitigation/compensation plan will be delivered through planning conditions. It should be agreed by all parties and, where required, it must be delivered prior to the commencement of the development and be retained in perpetuity. Ensuring our natural spaces are well managed is as essential as maintaining roads, power and other infrastructure features. Financial planning should account for this at the outset, through a service charge or capital endowment to ensure the long-term protection of these assets. All created habitats are expected to be positively managed for at least ten years after their creation.

- 6.3.3 The mitigation measures used on a particular scheme will be dependent on the species and habitats present; therefore, no two sites will have the same approach. It is recommended that the developer work with their ecologist. Compensation can be provided by various methods including on-site habitat creation, off-site provision and resources for on and off-site management.

- 6.3.4 All development should seek to enhance habitats for wildlife and there are opportunities to provide simple enhancement measures within all schemes. New build houses will be required to have an integrated bat or bird roosting feature where the development displaces bat or bird roosting facilities. All new build homes are encouraged to integrate bat or bird roosting features into their design. Further details are available in Appendix C
- 6.3.5 An ecological construction method statement will often be required for sites where there are biodiversity features. This will generally be required via a planning condition. The construction method statement will be available to contractors involved in site works and should detail the approach to protecting sensitive habitats and species during the development process.

6.4 Biodiversity Offsetting

- 6.4.1 Biodiversity offsetting is a process used as a solution to developments where compensation measures are required for damage to natural and wildlife features that cannot be avoided or mitigated through the development process. The scheme aims to achieve measurable outcomes for both the developer and the Local Planning Authority reflecting the mitigation hierarchy as detailed in the NPPF. Defra and Natural England ran pilot schemes across the country between 2012 and 2014 and these areas have continued to implement the process.
- 6.4.2 Hull's tight boundaries and industrial heritage results in an absence of semi-natural features and a fragmentation of the green network, therefore the impacts of developing on these features in Hull has a different significance to developing in other regions. Impacts on mature and veteran trees, woodland and species rich grassland in Hull would result in a significant loss of the city's resource. These habitats are difficult if not impossible to replace and their loss would be of great detriment on a local level. Offsetting would not be available in situations where there are licensable impacts on protected species or where there are impacts on SSSI, SAC or SPAs.
- 6.4.3 Biodiversity offsetting measures could be agreed via conditions or by entering into a planning obligation. Planning obligations will only be sought where it is
- necessary to make the development acceptable in planning terms;
 - directly related to the development; and
 - fair and reasonable, related in scale and kind to the development.
- 6.4.4 Biodiversity offsetting protocols and metrics will be developed by the Council as and when further advice and guidelines are made available by Defra and Natural England. It is likely that 'like for like' will be the minimum standard applied for those habitats deemed most valuable. Additionally, the area of replacement habitat created should generally be larger than that which is lost; as newly created habitats are of lower value to wildlife and the wider ecological network than those that have been established for many years. The pilot scheme measured 'biodiversity units', which assessed value/local distinctiveness and condition of the habitat. The pilot scheme took into account the technical difficulty of

recreation/restoration and time taken for a habitat to reach an adequate condition to replace those habitats lost.

6.5 Natural Capital

- 6.5.1 In September 2017, Defra published their advice to the government on the 25 year environment plan. The Natural Capital Committee was developed in response to the 2011 White Paper, in which they introduced a vision to be “the first generation to leave the natural environment of England in a better state than it inherited...”. Natural Capital is an approach to making decisions about the wider benefits of the natural environment to society, business and environment and it is intended to support decision makers including planners, communities and landowners.
- 6.5.2 Tools for characterising and assigning value to natural assets are in development and it is anticipated that these processes will be useful in identifying where issues can be rectified by investing in natural capital. In order to build an evidence base several things must be measured and analysed including:
- The natural assets and the ecosystem services they provide;
 - The range of economic and social benefits provided by the natural assets; and
 - The state/condition of natural assets in relation to the benefits derived from them.
- As the approach to Natural Capital is developed nationally, the LPA envisages that in line with best practice, Natural Capital will form part of the evidence base for assessing the value of natural assets where development may impact on their size, distribution and/or continuity in order to measure the wider implications of the proposal.
- 6.5.3 Natural Capital in Hull include species, communities, landscapes, ecosystems, soils, water and air with various benefits covering a broad range of issues such as air quality, recreation, flood management, wildlife conservation, energy and water.

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8.0 Appendices

Appendix A: Species of Relevance to Hull

Species		Wildlife & Countryside Act Schedule	Habitats Regulations Schedule	Birds /Habitats Directive Annex	NERC	Other	Status *	Distribution
Bluebell	<i>Hyacinthoides non-scripta</i>	8 (s)						Scarce in old woodland plantings
Brown long-eared bat	<i>Plecotus auritus</i>	5, 6	2	IV	S41		n	Occasionally encountered across the city
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	5, 6	2	IV	S41		b	Widespread across the city
Noctule bat	<i>Nyctalus noctula</i>	5, 6	2	IV	S41		n	Occasionally encountered across the city
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	5, 6	2	IV	S41		b	Frequently encountered across the city
Whiskered/Brandt's bats	<i>Myotis mystacinus/brandtii</i>	5, 6	2	IV	S41		n	Occasionally encountered across the city
Otter	<i>Lutra lutra</i>	5, 6	2	IV	S41		n	River Hull, Holderness Drain and Barmston Drain corridors. Frequent winter sightings.
Water vole	<i>Arvicola terrestris</i>	5			S41		b	Barmston Drain and ditch network
Badger	<i>Meles meles</i>	6				PBA	?	Surrounding countryside, green links
Hedgehog	<i>Erinaceus europaeus</i>	6					b	Widespread but declining
Water shrew	<i>Neomys fodiens</i>	6					b?	River Hull corridor
Common shrew	<i>Sorex araneus</i>	6					b	Rough grassland
Roe deer	<i>Capreolus capreolus</i>					DA	b	Widespread, uses green corridors
Common seal	<i>Phoca vitulina</i>		3	II		CSA	n	Rare in Humber Estuary and occasionally lower reaches of the River Hull
Grey seal							n	Occasional Humber Estuary and occasionally lower reaches of the River Hull
Harbour porpoise	<i>Phocoena phocoena</i>	5, 6	2	II, IV			n	Frequent Estuary and occasionally lower reaches of the River Hull
Common frog	<i>Rana temporaria</i>	5 (s)					b	Widespread across the city
Common lizard	<i>Lacerta vivipara</i>	5 (p)					b	Railway corridors
Common toad	<i>Bufo bufo</i>	5 (s)					b	Frequently encountered across the city
Grass snake	<i>Natrix natrix</i>	5 (p)					b	River corridors and wetlands

Great crested newt	<i>Triturus cristatus</i>	5	2	II, IV	S41		b	Known populations in west, north and east of the city
Palmate newt	<i>Triturus helveticus</i>	5 (s)					b	Avenues and Priory Park
Slow-worm	<i>Anguis fragilis</i>	5 (p)					?	Historic records, potentially found along railway network
Smooth newt	<i>Triturus vulgaris</i>	5 (s)					b	Widespread
Barn owl	<i>Tyto alba</i>	1					r	Farmland and open grassland around city boundaries
Cetti's warbler	<i>Cettia cetti</i>	1					n	Occasional sightings
Peregrine	<i>Falco peregrinus</i>	1					r	Industrial areas
Black redstart	<i>Phoenicurus ochruros</i>						b	Industrial wasteland
Sky Lark	<i>Alauda arvensis</i> subsp. <i>arvensis</i>				S41		b	Arable farmland – city boundary
Lesser Redpoll	<i>Carduelis cabaret</i>				S41		n	Winter visitor in small flocks
Common Linnet	<i>Carduelis cannabina</i> subsp. <i>autochthona</i>				S41		b	Farmland and open grassland around city boundaries
Common Cuckoo	<i>Cuculus canorus</i>				S41		v	
Reed Bunting	<i>Emberiza schoeniclus</i>				S41		b	
Herring Gull	<i>Larus argentatus</i> subsp. <i>argenteus</i>				S41		b	Widespread across city, breeds in industrial areas
Black-tailed Godwit	<i>Limosa limosa</i> subsp. <i>limosa</i>				S41		n	Rare winter visitors
Grasshopper Warbler	<i>Locustella naevia</i>				S41		v	Nature reserve
Eurasian Curlew	<i>Numenius arquata</i>				S41		n	Estuary frontage
House Sparrow	<i>Passer domesticus</i>				S41		b	Parks and gardens
Eurasian Tree Sparrow	<i>Passer montanus</i>				S41		b/?	Extending range across the city
Hedge Accentor	<i>Prunella modularis</i> subsp. <i>occidentalis</i>				S41		b	Parks, gardens, farmland and open grassland
Common Bullfinch	<i>Pyrrhula pyrrhula</i> subsp. <i>pileata</i>				S41		b	Parks, gardens, farmland and open grassland
Common Starling	<i>Sturnus vulgaris</i> subsp. <i>vulgaris</i>				S41		b	Parks and gardens
Song Thrush	<i>Turdus philomelos</i> subsp. <i>clarkei</i>				S41		b	Large gardens and parkland
Northern Lapwing	<i>Vanellus vanellus</i>				S41		b	Grassland

***Status**

b = breeding resident

v = breeding visitor only

n = non-breeding visitor

r = non-breeding resident

? = unknown status

Key:

Wildlife & Countryside Act 1981

- **Schedule 1** lists wild birds protected by special penalties & from disturbance whilst breeding
- **Schedule 5** lists animals other than birds subject to full; or (p) partial levels of protection, including (s) from sale only
- **Schedule 6** lists animals which may not be taken or killed by certain methods
- **Schedule 8** lists plants subject to full protection; or (s) protected from collection for sale only

Conservation (Natural Habitats &c.) Regulations 1994

- **Schedule 2** lists European protected animals on Habitats Directive Annex IV (see below)
- **Schedule 3** lists animal species that must not be taken or killed in certain ways (on Habitats Directive Annex V)
- **Schedule 4** lists European protected plants on Habitats Directive Annex IV (see below)

'Birds Directive' (European Union Directive on the Conservation of Wild Birds)

- **Annex I** lists species for which member states must designate Special Protection Areas (SPA)

'Habitats Directive' (European Union Directive on the Conservation of Natural Habitats and Wild Fauna and Flora)

- **Annex II** lists species for which member states must designate Special Areas of Conservation (SAC)
- **Annex IV** lists animals & plants requiring full protection by member states through local legislation ("European Protected Species")
- **Annex V** lists species whose taking in the wild & exploitation may be subject to management measures

PBA = Protection of Badgers Act 1992

DA = Deer Act 1991

CSA = Conservation of Seals Act 1970



WMA = Wild Mammals (Protection) Act 1996




Appendix B: Survey Timing Matrix



- Suboptimal
- Optimal
- No survey possible




	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Phase 1													
Botanical Surveys	Lower plants only (mosses & liverworts)			Detailed botanical surveys of higher plants possible						Lower plants only (mosses & liverworts)			
Fungi			Early species only					All fungi including waxcaps					
Birds	Wintering		Breeding and migrant birds		Breeding birds			Breeding and migrant birds			Wintering birds		
Badgers	Survey possible throughout the year					Vegetation can obscure evidence in the summer		Survey possible throughout the year					
Bat Roost Assessment	Survey possible throughout the year												
Bat Survey	Hibernation surveys only					Activity and emergence surveys						Hibernation surveys only	
Invertebrates					Optimal period varies between species								
Otters	Surveys possible year round, vegetation cover may hinder field signs												
Water Voles	Burrow survey	Habitat suitability assessment		Two surveys required: the first Apr to end Jun, the second Jul to Sep						Habitat suitability assessment		Burrow survey	
Reptiles							High temperature limiting factor						
Great Crested Newt				4 x aquatic surveys (must include 2 surveys mid-Apr to mid-May); eDNA survey season mid-April to late June									
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	

Appendix C: Enhancement Measures for Species

Species	Potential Enhancement Measures	Type of Development
Amphibians <ul style="list-style-type: none"> • Frogs • Toads • Newts 	Pond or wetland creation and restoration	All
	Create mosaics of scrub, hedges, woodland and grassland around ponds and wetland areas	Residential schemes greater than 10 dwellings
	Follow best practice with regards to sustainable urban drainage plans (see also SPD 39 Sustainable Drainage).	
	Install inset kerbs, offset gully pots or 'amphibian ladders' within gully and drain pots 	
	Amphibian Kerb (Aco, 2018)	
Badgers	Enhance green corridors	Residential schemes greater than 10 dwellings
Bats	<p>Integral roost/nesting features should be built into new residential developments. Bat roosting or bird nesting features to be built into the buildings on site at a rate of one per two new dwellings. For developments consisting of five or more dwellings boxes should be installed at a rate of one per four new dwellings and up to one quarter may be erected on external features if preferred.</p> <p><i>Bat features should target crevice dwelling species such as common and soprano pipistrelles which are most prevalent in Hull. Bat roosting features can be created by integrating ready-made bat boxes or bricks into the walls or eaves, or alternatively, spaces can be created behind cladding or walls.</i></p> 	All
	Example of Integral Bat Box (Ibstock, 2018)	

Species	Potential Enhancement Measures	Type of Development									
Bats continued	Lighting should be designed to avoid impact on wildlife corridors and roost entry points through use of LED or low pressure or high pressure sodium lamps.	All									
	No lights will be mounted where they shine onto the bat brick boxes that are to be installed within the buildings.										
	Retain existing trees, hedges and especially mature trees and trees with roosting potential.										
	Dark corridors should be designed into the site layout and light spill should be minimised. Lights will not be located where they shine directly on to the adjacent hedgerow. If the design is unable to completely avoid illumination of hedge lines, impacts will be minimised by use of hoods, cowls, or shields to direct the light away from the hedge line; lighting in these areas will be no more than 3 lux at ground level.	Residential schemes greater than 10 dwellings									
	Create linear features within the development that enhances and support the green network.										
	Any security lighting will be below 150W and will be fitted with a motion detection sensor and timer. Lights will be directed downwards to avoid overspill										
Birds	Establish native planting, particularly berry and seed producing trees and shrubs. See also Policy 45 Trees.	All									
	Integral roost/nesting features should be built into new residential developments. Bat roosting or bird nesting features to be built into the buildings on site at a rate of one per two new dwellings. For developments consisting of five or more dwellings boxes should be installed at a rate of one per four new dwellings and up to one quarter may be erected on external features if preferred.	All									
	Bird box guidance										
	<table border="1"> <thead> <tr> <th>Species</th> <th>Details</th> <th>Type of Development</th> </tr> </thead> <tbody> <tr> <td>General</td> <td>Make sure boxes are sheltered from prevailing wind, rain and strong sunlight.</td> <td>All</td> </tr> <tr> <td>Small garden birds (e.g. tits, robins)</td> <td>Should be two to four metres above ground level. </td> <td>All – Particularly residential</td> </tr> </tbody> </table>	Species	Details	Type of Development	General	Make sure boxes are sheltered from prevailing wind, rain and strong sunlight.	All	Small garden birds (e.g. tits, robins)	Should be two to four metres above ground level. 	All – Particularly residential	
	Species	Details	Type of Development								
General	Make sure boxes are sheltered from prevailing wind, rain and strong sunlight.	All									
Small garden birds (e.g. tits, robins)	Should be two to four metres above ground level. 	All – Particularly residential									
	Integral Bird nesting feature (Bird Brick Co, 2018)										

House Sparrow	<p>Should be two to four metres above ground level; birds will nest in colonies, so two or three can be sited spaced out on the same side of the house</p>  <p>Example of sparrow terrace that can be incorporated into a building or erected externally (Schwegler, 2018).</p>	All
Starling	<p>Should be two to four metres above ground level. Ideal for medium to large sized gardens. Preference for externally erected boxes.</p>	All
Swift	<p>Should be at least 5m above ground level. Under eaves and gables is ideal. As swifts are a colonial species installing a number of cavities will be necessary.</p>  <p>Example of integral swift box under eaves (Swift Conservation, 2018).</p>	Schools, public, commercial and industrial buildings
Swallows	<p>Site adjacent to masonry or wooden beams. Nest needs constant, open access.</p>	Farm and outbuildings
Peregrine	<p>Provision of artificial nest sites on built structures. UK, peregrines have been recorded nesting on built structures from 20 to 200 metres. Boxes should face north-east or east and should not be directly sited above pedestrians.</p>	Tall industrial structures that will not be subject to disturbance.

Species	Potential Enhancement Measures	Type of Development
Hedgehogs	<p>Fences and other boundary treatments on development sites should have holes of at least 13cm diameter to allow the passage of hedgehogs and other small mammals, reptiles and amphibians. NB: This is generally too small for household pets</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p style="text-align: center;">(Hedgehogstreet, 2018) (Suffolk Wildlife Trust, 2017)</p>	All
	Dead wood and log piles to provide hibernation sites	Residential schemes > 10
	Consider the use of hedgehog boxes	dwellings and Industrial developments
Invertebrates	<p>Create green/brown roofs on new buildings</p>  <p>Brown roof (Urban Habitats, 2006)</p>	As appropriate
	Create bare areas of suitable substrate (e.g. chalk, clinker, limestone, low nutrient soils)	Industrial development
	Incorporate dead wood and log piles.	All
	Provide a mosaic of scrub, hedges, grassland habitats	
	Insect boxes	
	Retain and create deadwood habitats.	
Provide nectar rich species, structural diversity and native planting within landscaping schemes.		

Species	Potential Enhancement Measures	Type of Development
Invertebrates continued...	Plant native trees.	All
	Create ponds with shallow sides.	Residential schemes greater than 10 dwellings, Industrial development
	Plant nectar rich lawns.	
	<p>Provide bee bricks built into developments at a rate of one per five residential units.</p>  <p>Example of a Bee Brick (Green and Blue, 2017)</p>	Residential schemes greater than 10 dwellings. Industrial development impacting brownfield habitats
Otters	Retain or create undisturbed habitat by rivers and drains using wide buffers from development.	As appropriate
	Create wet woodland, plant bank side trees and scrub where possible.	
Reptiles	Create undisturbed areas of habitat and basking areas of bare ground and/or short grass on south facing slopes.	Residential schemes greater than 10 dwellings, Industrial development
	Create wetland areas for grass snakes.	As appropriate
	Construct log piles and hibernacula.	Industrial development
Wildflowers	Planting wildflower lawns	Residential, commercial and industrial schemes
	<p>Introduce wildflowers into verges – consider low growing species tolerant of mowing such as yarrow, wild carrot, bird's foot trefoil, red clover, selfheal, daisy, autumn hawkbit, cat's-ear and vetches.</p>   <p>Bird's Foot Trefoil in road verge Wildflower Lawn(Emorsgate, 2018)</p>	

Species	Potential Enhancement Measures	Type of Development
Woodland	Woodland management.	As appropriate
	Planting of suitable native species to ensure continuity of the woodland over time	
	Creation of log/habitat piles	
	Creation of rides and glades.	
	Control of non-native species	
	Under sowing with shade tolerant woodland herb species	
General	Provision of roosting features for bats and birds (see relevant section)	All
	Planting schemes could consider a variety of nectar rich plants and shrubs which flower at different times of the year or provide all year round colour and nectar.	
	Sustainable urban drainage, swales and rain gardens etc. to provide joint benefits for flood relief and wildlife (see also SPD 39 Sustainable Drainage).	
	Boundaries should be designed to permit the movement of wildlife between gardens and open spaces	
	Enhance the strength and continuity of the green network.	
	Hedgerow planting	Residential schemes greater than 10 dwellings, Industrial development
	Where there is a need to illuminate boundary features for safety reasons, lighting should be low-level and directional.	
	Eradication of non-native invasive species.	As appropriate
	Tree planting for wildlife, shade and improved air quality (see also SPD policy 45: Trees).	
	Buffer strips along watercourses and ditches.	
	Plant rafts and marginal planting in waterbodies with appropriate species. Initial protection from waterfowl would be required.	
	Hedgerow planting.	
	Living Roofs - Provides habitat for insects and birds and reduces water runoff and increases insulation	

Appendix D: Examples of when surveys may be required

Size	Surveys required
Residential Development 10 dwellings or more	Ecological Constraints and Opportunities Plan (ECOP) to include a balance sheet detailing losses and gains.
Non-residential development more than 1000m ² floor area or more than 1 hectare	
Residential Development 10 dwellings or more involving loss of green space or brownfield with semi-natural features (see below)	Preliminary Ecological Appraisal to include Ecological Constraints and Opportunities Plan (ECOP) to include a balance sheet detailing losses and gains.
Non-residential development more than 1000m ² floor area or more than 1 hectare involving loss of green space or brownfield with semi-natural features (see below)	
Developments where there is a reasonable likelihood of impacts on notable and/or protected species and habitats	See below for details.

Ecological surveys are only required where there is a **“reasonable likelihood”** of protected species being present (as set out in the NPPF).

Features	Possible surveys required
Semi-natural or brownfield habitats	Preliminary Ecological Appraisal
Within 200m of river, drains and watercourses	Otters, water voles, bats, amphibians
Ponds, swales, ditches and waterbodies <ul style="list-style-type: none"> Major proposals within 250m of a pond or Minor proposals within 100m of pond (A major proposals is one that is more than 10 dwellings or more than 0.5 hectares or for non-residential development is more than 1000m ² floor area or more than 1 hectare)	Great crested newts, amphibians
Disused buildings, wide-scale demolition of structures, churches, barns. <ul style="list-style-type: none"> pre-1914 structures with slate roofs or gable ends pre-1914 properties within 400m of woodland and/or water pre-1960 detached buildings and structures within 200m of woodland and/or water buildings with weather boarding and /or hanging tiles 	Bats and nesting birds
Grassland	Vegetation communities, badgers, reptiles, amphibians, nesting birds
Woodland	Vegetation communities, bats, badgers, reptiles, butterflies, nesting birds
Mature trees and trees with signs of damage and/or decay	Trees, bats, nesting birds, fungi, Tree Preservation Order (TPO) search

Brownfield (including industrial, docks, allotments and railway land)	Reptiles, invertebrate, nesting birds, breeding bird, amphibians
Lighting of churches and listed buildings, green space (e.g. sports pitches) within 50m of woodland, water, hedgerows or the green network	Bats
Arable or pasture	Breeding birds, badgers
Wind turbines	Bats, breeding birds, wintering birds, reptiles, amphibians

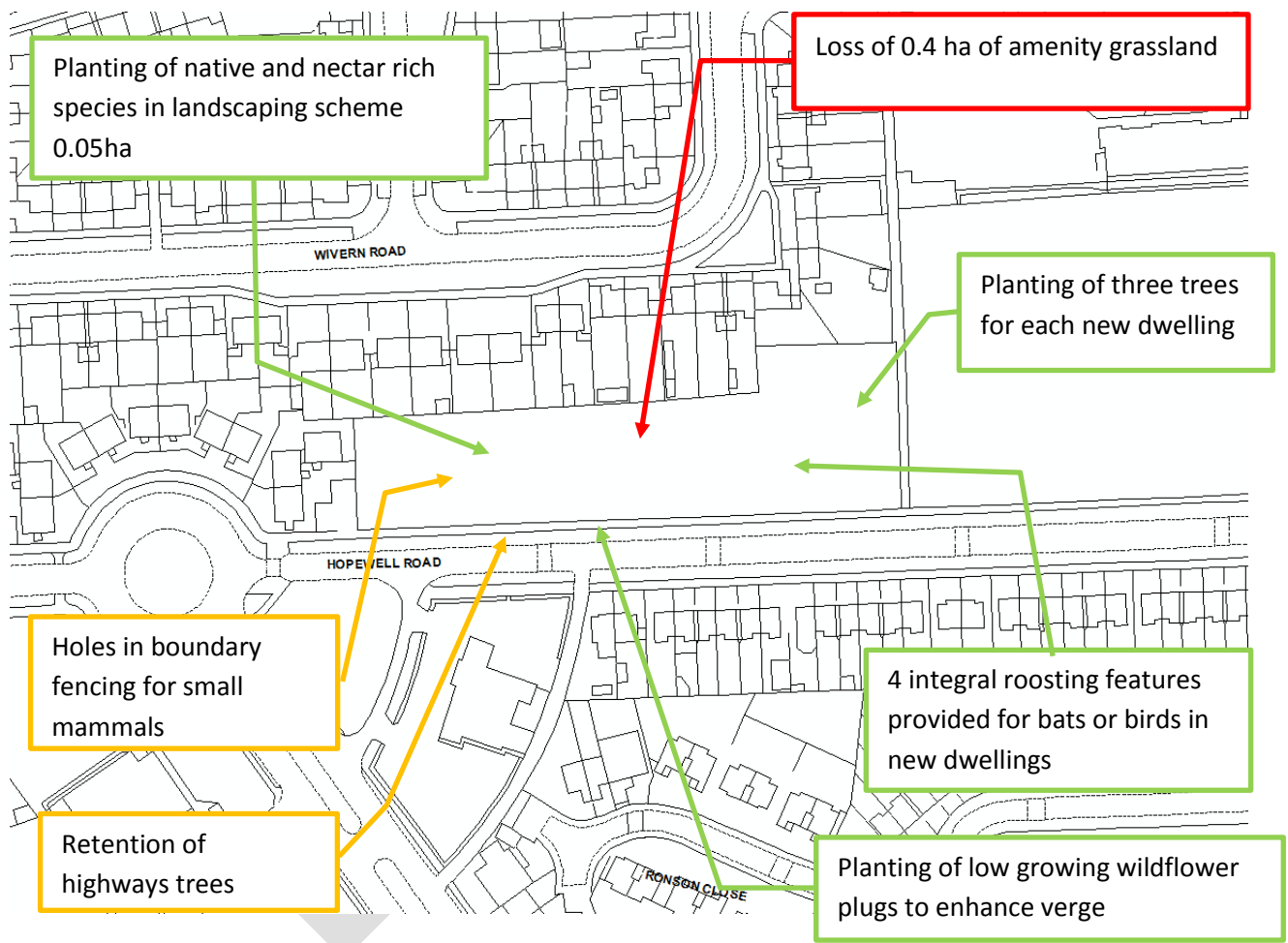
As a general principle, survey work which is more than two years old is not considered acceptable; certain mobile species can potentially move in or leave an area in the interim period. This is particularly the case with bats, and bat surveys greater than two years old will need to be repeated. A planning condition should normally be attached stating that survey work should be repeated if works which may affect the species concerned haven't taken place within two years of the date of the most recent survey in line with BS:42020.

Appendix E: Ecological Constraints and Opportunities Plans (ECOP)

ECOPs are an effective way of quantifying the habitats on site pre and post development and will assist the Local Planning Authority in the decision making process and ensure that design processes take into account the most valuable natural assets and that developments result in no net loss of biodiversity. ECOPs should include a balance sheet of habitats and wildlife feature pre and post-development.

You will need to mark the location and type of bat and bird features you are installing on your ECOP, as well as any access points within boundary feature you are making for the passage of small mammals.

Example 1: Construction of 16 Dwellings on amenity grassland plot

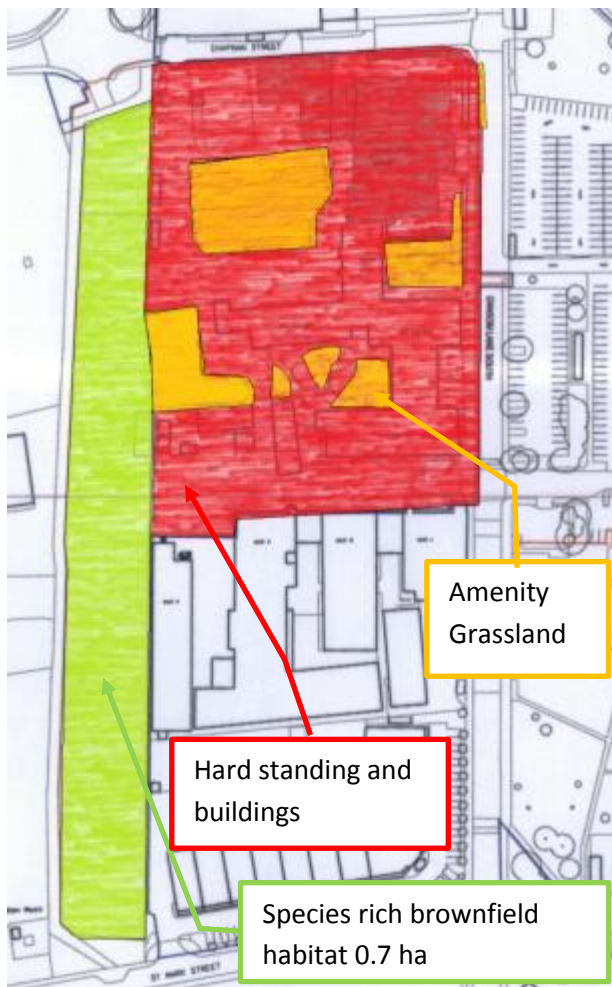


Balance Sheet

Habitat	Pre-development	Post-Development	Balance
Amenity grassland	0.5 ha species poor	0.1 ha	-0.4 ha
Amenity verge (Outside development boundaries)	0.025 species poor	0.025 species rich	+ 0.025 ha of enhancement
Trees	0	48	+ 48
Nectar rich shrubs	0	0.025ha	+ 0.025
Nesting and roosting features	0	4	+ 4
Mammal access points in boundary features	n/a	17	17
Bee bricks	0	3	+3

Example 2: Industrial Expansion on to Brownfield Site

Significant loss of species-rich brownfield habitats would require a Preliminary Ecological Appraisal that would direct further survey requirements



Balance Sheet

Habitat	Pre-development	Post-Development	Balance
Open and Mosaic Habitats on Previously Developed Land	0.7 ha	0.1 ha	-0.6 ha
Species rich wildflower grassland	0	0.5 species rich	+0.5
Trees	16	148	+ 132
Nectar rich shrubs and herbs	0.01	0.05	+ 0.04 ha
Amenity Grassland	0.2	0	- 0.2 ha
Bird and bat nesting and roosting features	0	10	+ 10
Hedgehog boxes	0	2	+ 2