

Providing Net Gain for Biodiversity Supplementary Planning Document (SPD)



Adopted June 2021

Technical Update

December 2021 Update

In July 2021 Natural England published version 3 of the Biodiversity Metric. Along with other changes, this updated version of the metric and the associated guidance explicitly addresses how vegetated gardens should be treated when calculating biodiversity value for sites. Of particular note, paragraph 2.11 of the SPD has been superseded by the Biodiversity Metric 3.0 calculation tool and supporting documents. It is therefore no longer necessary to provide local level technical guidance on this matter.

Users of this Supplementary Planning Document (SPD) are advised that in light of this technical advice, the latest calculation tool guidance from Natural England should take precedence. The Biodiversity Metric 3.0 calculation tool and supporting documents can be accessed at: <http://publications.naturalengland.org.uk/>

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1 Policy Requirements

Introduction

- 1.1** Improving the quality of the district's natural environment and ensuring it remains one of the district's defining features is part of the Local Plan vision. Our beautiful landscapes and green infrastructure are comprised of a huge range of wildlife which coexist in ways we may not yet fully understand. Protecting and enhancing biodiversity is a fundamental step in ensuring we protect all aspects of the natural environment for now and future generations.
- 1.2** This document provides guidance for all proposals on how to encourage gains in biodiversity within development schemes in the Harrogate District. Chapter 3 highlights the importance of protecting and enhancing existing nature conversation features and following the mitigation hierarchy when designing proposals, chapter 4 details how ecological compensation should be planned where a loss of biodiversity is unavoidable and chapter 7 details species specific enhancements.

Policy Context

- 1.3** The National Planning Policy Framework stipulates that planning policies and planning decisions should contribute to the national environment by securing measurable net gains for biodiversity. The Environment Bill, once enacted, will make the provision of biodiversity gain law and allow regulation to set a required percentage increase, likely to begin at 10%. In the near future, biodiversity net gain will be common practice across developments.
- 1.4** Policy NE3: Natural Environment of the Harrogate District Local Plan 2014- 2035 supports proposals which provide a net gain in biodiversity and criteria E of this policy sets a requirement for all major development schemes ⁽¹⁾ to provide no net loss in biodiversity value. To evidence this requirement, applicants are required to undertake a process of biodiversity accounting to calculate in a clear and transparent manner the biodiversity value of the habitats on site before development, the value of loss or gain resulting from development and, if necessary, the value of any compensation that will be provided as part of the development scheme.
- 1.5** Applications for full planning and outline permission must meet the policy requirement. The approval of reserved matters does not necessarily require the details for meeting criteria E to be revisited unless there is a change to the scheme in regards to layout or landscaping. For example, changes within the detailed schedule of planting may impact on the biodiversity value of the final development. Where this is the case, a revised metric may need to be submitted to evidence that the scheme still meets the policy requirement.
- 1.6** Applicants must remember that biodiversity accounting and a requirement for no net loss of biodiversity does not supplant or supersede other requirements within local planning policy NE3, national planning policy framework or ecological best practice and it does not relinquish an applicant's legal responsibility when dealing with any protected species. Policy NE3 in full includes:
- Criteria A, B and D: A and B protect designated sites and criteria D protects irreplaceable habitats. These have specific requirements for how impacts should be assessed. Compensation of internationally and nationally important sites and irreplaceable habitats is contrary to policy and therefore these areas should not be subject to biodiversity accounting.
 - Criteria C requires avoidance or mitigation of significant harm for priority species and habitats. Certain species of wildlife may not automatically benefit from habitat creation which takes no specific account of their requirements. Therefore on sites where priority

¹ For housing, major developments are those that consist of ten or more dwellings or, where the number of dwellings is not known, those developments of 0.5ha or more. For all other uses, major developments are those that consist of 1000 sq m of floor space or more or where the site area is 1ha or more.

Policy Requirements 1

species have been identified additional mitigation or enhancement may be required to meet the policy. Section 7 provides some common actions that can be used to mitigate impacts.

- Criteria F requires proposals to increase connectivity of habitats by taking opportunities to expand existing green corridors.
- Criteria G requires proposals to make use of opportunities to restore and re-create priority habitats.

1.7 Biodiversity accounting is based on the concept that enhancement of habitats will generally improve conditions for the species that the habitat supports. Therefore criteria E will be met by ensuring habitat value is maintained or increased. For an overview of some of the most common ways of providing net gains specific for species that can be applied to any scheme please see section 7.

2 How to assess a site

- 2.1** The findings of ecological surveys should be taken into careful consideration at the earliest design stage of a development. There will be greater opportunities to avoid harm and address conflicts by having information from the outset. In conjunction with advice from an ecologist, the metric should be used to calculate the implications on biodiversity values of various iterations of the site design and will be invaluable for meaningful pre-application discussions with the council.

Ecological Impact Assessment (EclA)

- 2.2** The requirement for no net loss of biodiversity is just one local policy provision and it is necessary for development schemes to be designed within the context of all local and national environmental policies and legislation. To ensure this, all major planning applications are required to undertake an Ecological Impact Assessment (EclA) by a qualified ecologist. This will include survey work such as a Preliminary Ecological Appraisal but importantly, the EclA will also assess impacts in light of relevant policy (by determining the significance of impacts), consider impacts on protected and priority species, provide for the consideration of alternative layouts and identify mitigation, residual impacts and opportunities for enhancement. Rather than being a standalone assessment, biodiversity accounting should feed in to the EclA process to ensure an optimum outcome for ecology.

- 2.3** All ecological assessments should:

- be undertaken in accordance with guidelines from the Chartered Institute of Ecology and Environmental Management (CIEEM);
- include an assessment of the condition of habitats in accordance with the habitat condition sheets within the Biodiversity Metric 2.0 Technical Supplement (Natural England, 2019), or subsequent version;
- use the UK Habitat Classification (2018) as this classification system is most compatible with the metric;
- identify notable features, such as connected woodland, streams and designated sites surrounding the site; and
- have been carried out no more than two years prior to submission to Harrogate Borough Council.

How to calculate the baseline value of biodiversity on site

- 2.4** There are a number of metrics currently available to calculate biodiversity value but to ensure sites are assessed in a consistent manner applicants are required to use the biodiversity metric version 2.0 jointly published by Natural England and Defra (Natural England, 2019) or subsequent updates. Natural England has published an user guide containing the key principles and rules in applying the metric and these will be used by the council when considering development proposals and where appropriate, offset schemes. This metric, and the supporting user guide and technical guidance can be found at Natural England's website <http://publications.naturalengland.org.uk/>

- 2.5** The metric includes three separate calculations for area-based habitats, linear hedgerows and rivers/ riparian habitat and these must be completed where appropriate. Each parcel of habitat should be recorded on a separate line within the metric detailing the habitat type, condition and connectivity. The rivers metric provides an additional assessment of riparian functionality which is different to the assessment made for terrestrial habitats. Therefore all habitats up to the bank of a river should be included within the terrestrial habitat metric and the river metric.

- 2.6** Attempts to exclude or remove nature conservation features could constitute a criminal offence and should never be undertaken. Where it is suspected that the baseline biodiversity value of the site has been affected negatively prior to undertaking the baseline assessment the

How to assess a site 2

council will require an assessment of the site based on the condition before such an occurrence (this may need to be based on previous aerial photos and/or historic information held by North and East Yorkshire Ecological Data Centre). Where there is any doubt in regards to the scoring for 'Distinctiveness' or 'Condition' it will be assumed that the highest likely value will apply.

- 2.7** For area-based habitats, the metric provides the opportunity for 'distinctive; or 'highly distinctive' habitats to be assigned a score for 'strategic significance' where there is a local strategy in place. Harrogate Borough Council has produced an online interactive map showing [Habitats of Strategic Significance](#) for three broad habitat types; 'woodland', 'semi-natural grassland' and 'heathland and bog'. Habitats can be allotted to one of these three broad habitat types and a strategic significance score is awarded on the basis of whether they are present at the relevant location:
- at a low level: Low Level of Existing Habitat is shown by no colour and no multiplier is applied;
 - a high level: High Level of Existing Habitat is shown by a dark colour and a multiplier of 10% is applied; or
 - at an intermediate level: Habitat Creation Opportunity Area is shown by a lighter colour and a multiplier of 15% is applied.
- 2.8** The multipliers which are applied for strategic significance operate equally in relation to areas of proposed development (where higher scores are intended to act as a disincentive to disruptive development) and in relation to areas of proposed habitat creation (where higher scores are intended to act as an incentive to create new habitat, especially in the intermediate Habitat Creation Opportunity Areas). Further information on how the map has been created can be found online with the [map](#).
- 2.9** This map is for area-based habitats only and should not be used to score linear features such as rivers and streams. For these, strategic significance will be agreed on a case by case basis and applicants are encouraged to undertake pre-application discussions with the Environment Agency.

How to calculate the biodiversity value of a development scheme

- 2.10** Proposed development schemes should be assessed using the metric modules to create three separate scores for area-based habitats, rivers and hedgerows. These will be compared with the baseline assessments and resulting scores will be given to the scheme depending on whether there are more or less units after development than before. The scores for each module cannot be added together and a resulting score of 0 or above will be required for each. Positive scores for one module cannot be used to offset a negative score for others, unless a strong case can be made on ecological grounds, which is agreed with the council.
- 2.11** When measuring the biodiversity value of the proposed scheme there are a number of potential classification types which could be selected. Areas of roads, hardstanding and buildings should be calculated and recorded as the category type 'urban-development, sealed surface'. Private gardens should not contribute to the biodiversity value of the scheme as there is no guarantee future homeowners will maintain a vegetated garden and may build or lay hardstanding over the area. All garden areas should be referenced using the category type 'Urban - un-vegetated garden'.

2 How to assess a site

Where to find further information on completing the metric

- 2.12** For guidance on how to complete the metric please refer to the Metric User Guide and Technical Supplement (Natural England 2019) or subsequent documents on the Natural England website: <http://publications.naturalengland.org.uk/> .

How to design a scheme 3

- 3.1** Development schemes must follow the mitigation hierarchy and from the outset seek to avoid negative impacts on biodiversity. This is imperative for habitats deemed as irreplaceable and schemes which result in a loss or deterioration of irreplaceable habitats will not be supported in accordance with criterion D of Local Plan Policy NE3. These habitats include historic wetlands and species-rich grasslands, ancient woodland, including ancient semi-natural woodland and plantations on ancient woodland, and aged or veteran trees.
- 3.2** All other damaging impacts should be avoided but where this is not possible mitigation measures may be implemented. Consideration should be given to the impacts of development on the wider environment surrounding the development site including those caused by disturbance during construction and occupancy of the development, habitat fragmentation and isolation effects.
- 3.3** Schemes should be designed taking into regard the wider objectives of Local Plan natural environment policies: NE3, policy NE5, policy NE7 and policy CC1. To do this, information on landscape objectives local to the development site should be investigated including Natural England's National Habitat Network Maps, Harrogate BAP, Landscape Character Assessments and Green Infrastructure SPD. Using this data schemes should seek to mitigate harm across the wider environment through the use of appropriate plant species, buffering, stepping stone habitats and wildlife corridors. In addition, schemes should seek opportunities to build resilience for biodiversity to climate change. This may include managing water quality to avoid flood or draught, increasing the size or connectivity of habitats, increasing variety of species within a habitat or increasing food or shelter for specific fauna species. Climate Change Adaptation Manual (Natural England) provides information on climate change adaption for a range of topics including specific habitats and species, ensuring resilient recreational space and Green Infrastructure.
- 3.4** Compensation should be considered as a last resort and only justified where avoidance and mitigation measures are not achievable. There is often a degree of uncertainty over whether compensatory habitats will achieve the value of the original biodiversity and this is reflected in the scoring within the metric. Multipliers are used to reflect the level of risk to success taking account of the difficulty in creation or restoration and the expected length of time for the habitats to achieve full maturity. Consequently, the area of compensatory habitat will need to be larger or have a higher distinctiveness value to achieve the same biodiversity units as the original habitat. It is important to take account of this when considering a scheme which relies on compensatory measures to off set losses.
- 3.5** The most successful development proposals will have green infrastructure embedded into the design and layout. Green Infrastructure can consist of a range of green spaces and landscape features including parks, gardens, allotments, trees, streams and wetlands. Well designed green infrastructure can deliver benefits for biodiversity via connected habitats, for people's physical and mental well being by providing access to nature and recreational space and for climate change resilience by incorporating effective drainage, flood management and urban cooling.
- 3.6** However due consideration should be given to the impact different uses and the surrounding environment can have on a habitat's capacity to flourish. In particular it is important to avoid the temptation to improve the biodiversity scoring by proposing high quality habitats onto small or compromised spaces where they are unlikely to succeed. Instead, a realistic assessment of how spaces will be used by future residents and the impact this will have on biodiversity should be undertaken. Consideration will be given to landscape plans, public open space and biodiversity in an holistic manner. Schemes in which the different objectives of multi-functional spaces conflict and which are not practical will not satisfy the policy requirements.

3 How to design a scheme

- 3.7** All compensatory features, including enhancement of existing features, must be maintained for at least 30 years ⁽²⁾ To ensure they can be maintained compensatory features must be compatible with the conditions of the location. For example, if they are sited within a housing scheme the habitat should not be sensitive to disturbance from sources such as light, noise, pets and walkers. Finally, compensatory features must be accessible for maintenance by a suitable organisation for a period of 30 years. Providing compensatory features in private gardens where there is little security that the feature can be maintained will not be acceptable.
- 3.8** Compensatory features will need to be designed so that they are achievable and the desired target value is not too high. To this end enhancements of existing habitats should not propose an improvement of more than two condition sub-categories (for example, from poor to good or fairly poor to fairly good). Where a new habitat type is proposed it should not be more than one level of distinctiveness compared with the existing habitat. The definitions for distinctiveness and condition categories are provided by the specific metric guidance for area-based habitats, linear hedgerows and rivers.

2 This is in keeping with the current draft of the Environment Bill 2020 (April 2020).

When to use offsetting 4

- 4.1** Where compensation is necessary and justified but cannot be accommodated on site the provision of new habitats off site, known as biodiversity offsetting can be considered. Biodiversity offsetting may occasionally involve the translocation of existing habitat elements to a new location within the district but where this is not appropriate new habitats can be created to replace those that will be lost.
- 4.2** It is the responsibility of the developer to locate and secure any biodiversity offsetting that may be required. Developers should refer to the online interactive map showing [Habitats of Strategic Significance](#) to identify Habitat Creation Opportunity Areas. In general, habitat types would be expected to be replaced with the same broad habitat type in locations identified as strategically significant for that broad habitat type on the map. It is recognised, however, that appropriate habitat creation may include mosaics of different semi-natural habitats and areas of the map where habitats overlap may be suitable for this. In addition, the network of 'River and Stream Margins' is intended to provide further opportunities for habitat creation on the floodplain for area-based habitats such as wet woodland or floodplain meadow. Offsets located in Habitat Opportunity Areas are more likely to provide the greatest benefits for biodiversity and will be scored to reflect this. However, the detail of all compensation proposals will be assessed on their merit and will need to be agreed by the local planning authority prior to the scores for habitat creation being agreed.
- 4.3** Where enhancement of rivers or streams is required to offset a loss in value the Humber River Basin Plan should be used to identify rivers with the greatest opportunity for enhancement. It is recommended that proposals affecting rivers utilise the Environment Agency's pre-application advice service at <https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>
- 4.4** Sites of Special Scientific Interest (SSSIs) and Sites of Importance for Nature Conservation (SINC) are shown on the map in order to provide context and it is useful to know of their whereabouts in planning for habitat creation. SSSIs are generally excluded from biodiversity accounting, as such nationally important sites are considered irreplaceable. As alternative funding sources are often available for their enhancement and management offsetting could be more beneficial in certain areas outside of SSSIs where there has previously been little conservation management. SINC's are locally protected under Policy NE3 of the Local Plan. They are important elements of the local habitat network and any proposals for offsetting that might buffer or enhance SINC's will be welcomed by the council.
- 4.5** The quality of the offsetting site should be considered carefully. Offsetting sites or areas of compensation should not be created at the expense of other high value habitats or at the expense of priority species which may be present at the offsetting site.
- 4.6** It is important that offsetting provides genuine benefits and should be additional to any enhancement work that is already ongoing or planned to be undertaken at the offsetting site. It is not acceptable to claim enhancements that would have been undertaken regardless of the development scheme.
- 4.7** The council will consider whether it may be able to offer developers the opportunity to offset their on-site biodiversity deficit within schemes developed by the council. In some circumstances, where a genuine search for an offsetting site has not been successful, there may be opportunity to pay a commuted sum to the council to improve habitats across the district. However, developers should not rely upon this option as it will be restricted to projects that have already been identified and costed and may not be able to provide compensation for all habitat types.

4 When to use offsetting

Metric

- 4.8** As with the development site, an ecological assessment of the proposed offsetting site will need to be undertaken and the baseline value established using the metric. Once this has been done the offsetting scheme can be measured within the metric to establish the value of biodiversity gain proposed. The metric applies the same multipliers to an offset score to account for the level of risk as to whether a habitat will be successfully established, the strategic significance and connectivity. The details of the offsetting scheme will need to be agreed with the council before an application can be granted permission.

Biodiversity Enhancement Management Plan 5

- 5.1** All proposals must be supported by a Biodiversity Enhancement Management Plan (BEMP) to set out the actions required to achieve and maintain the biodiversity value of the site for a period of 30 years. All habitats whose value is contributing to the overall biodiversity value of the site must be detailed in the BEMP, including any habitats which are to be maintained in their pre-development state and areas created as Public Open Space.
- 5.2** The BEMP must include:
- a plan of the areas of habitat to be maintained, enhanced and/or created;
 - a schedule of actions to create or enhance and maintain each habitat at the required quality for a period of 30 years;
 - a schedule of ecological monitoring for the 30 year period identifying when key indicators of habitat maturity should be achieved; and
 - schedule of actions to be undertaken in case signs of failing are identified.
- 5.3** The schedules must include the following details:
- details of the technique(s) to be used;
 - equipment to be used;
 - roles and relevant expertise of personnel and organisations involved; and
 - timing of actions including submission of monitoring report to the Council.
- 5.4** The BEMP must be agreed with the council before full planning permission can be granted. For outline applications, a condition will require submission of the BEMP for consideration with landscaping details prior to landscape matters being approved. The details of the BEMP will be secured via planning conditions and, where necessary, legal agreements.

6 Submitting your metric

- 6.1** The council strongly advise applicants take the opportunity to discuss their biodiversity metrics and BEMP with officers as part of the [pre-application advice service](#). Issues can arise from underestimating a sites pre-development biodiversity value or overestimating the potential of biodiversity enhancements but these can be resolved more satisfactorily if they are identified early in the process.
- 6.2** Proposals subject to the requirement of providing no net loss must submit the following information for the planning application to be considered 'made' or complete:
- a plan of the site showing existing habitats complete with key and a schedule showing the size of each parcel of habitat type (by area or length as appropriate);
 - a plan of the proposed site layout showing habitats to be maintained, enhanced and created complete with key and a schedule showing the size of each parcel of habitat type (by area or length as appropriate);
 - where relevant, plans of the proposed offsetting site showing before and after enhancement/ habitat creation with key and a schedule showing the size of each parcel of habitat type (by area or length as appropriate);
 - an EcIA report which includes a written narrative to show:
 - that a qualified ecologist has had meaningful involvement in the design of the site layout;
 - how the mitigation hierarchy has been utilized;
 - a justification for why compensatory features are required (if appropriate); and
 - description of alternative lay outs.
 - a completed copy of the most up to date Defra/ NE metric detailing biodiversity scores for pre-development, post development and any offsets.

For applications for full planning permission, and applications where landscape matters are considered (whether outline or reserved matter application):

- a Biodiversity Enhancement Management Plan for all features accounted within the metric, including timetables for habitat creation, maintenance, monitoring and reporting to the council.

Planning Conditions and Legal Agreements

- 6.3** For outline approvals where landscape matters have not been considered a planning condition will be used to require the submission of a BEMP along with landscape details in a reserved matters application. Where a BEMP has been submitted, planning conditions will be used to secure the actions of on-site habitat creation, enhancement, maintenance and monitoring by a qualified ecologist, including the submission of ecological reports to the council at agreed intervals to evidence maintenance of habitats.
- 6.4** A legal agreement between the council and developer will be drawn up requiring a financial guarantee that the actions of the BEMP are undertaken. This will take the form of a financial bond to cover the council's cost should any intervention be required to remedy any failure to comply with the obligations agreed in the BEMP. Further work will be undertaken to calculate the cost of the bond and the outcome of this work will be published in due course.
- 6.5** The legal agreement may include a provision for the responsibility of undertaking the BEMP to be passed onto any subsequent landowner(s).

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- 6.6** Where biodiversity offsetting is being provided a legal agreement between the developer and the landowner and/or provider of the offset will be drawn up to secure the actions of the BEMP are undertaken and the sums to cover this work are transferred from the developer to the offset provider.

Sharing Data

- 6.7** In the spirit of sharing ecological data to protect and enhance the natural environment the council requests that ecological data is submitted in GIS formats and permission is given to pass this information onto the North and East Yorkshire Ecological Data Centre (the Local Environmental Records Centre for our district). Species data should already be forwarded to the Data Centre by ecological consultants, and helps to inform the evidence database for the benefit of all users of the Local Environmental Records Centre service.

- 6.8** To be able to do this effectively data should be submitted in the following format:

- UK Habitat Classification (UK Habs) system;
- GIS format (ESRI shapefile/Mapinfo TAB / MID_MIF);
- All data to be mapped as polygons, except linear features such as hedges, walls, trees which may be mapped as lines and points;
- Polygons should be snapped to Mastermap base mapping;
- Polygons should have correct geometries, with polygons sharing boundaries having shared geometry; and
- Polygons should have no slivers, overlaps or bow-ties.

- 6.9** Data should be accompanied by INSPIRE compliant metadata statement and include the following attributes in the metadata:

Habitat Classification System	Habitat Name	Habitat Code	Date recorded	Name of recorder	Data provider	Datum (projection used)	Location name	Survey type	Comments
<i>Preferably UK Habs. Bespoke classification systems are not accepted.</i>	<i>Habitat name as defined in the published handbook for that system.</i>	<i>Habitat code as defined in the published handbook for that system.</i>			<i>Name of the organisation providing the data.</i>	<i>The projection used to digitise the data. This will usually be OSGB – Ordnance survey British National Grid, or Latitude/Longitude WGS 84 in metres.</i>	<i>Name of the site where the habitat was recorded.</i>	<i>How the data was captured. Usually a field survey.</i>	<i>Any additional information</i>

Table 6.1

7 Priority Species

- 7.1** There is a range of legislation (such as the Wildlife and Countryside Act, 1981, as amended or the Conservation of Habitats and Species Regulations, 2017) which offers varying degrees of legal protection to a range of native wildlife species, including bats, great crested newts, otters, badgers, nesting birds and others. This legislation generally requires that harm to certain protected species must be avoided and is fully applicable during any works to implement a planning permission, including site preparation works. Under some circumstances, a protected species mitigation licence may be required to be obtained from Natural England before any works may commence. Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system including in relation to protected species. In addition, Natural England has issued standing advice on protected species which can be viewed on their website: <https://www.gov.uk/government/organisations/natural-england>.
- 7.2** Surveys for protected and priority species are often required in association with planning applications in order to ensure that harm to such species is avoided, or in some cases mitigated or compensated for through the planning system. For major developments, surveys, mitigation and compensation for protected and priority species are routinely included within the ecological assessment to support a major planning application.
- 7.3** Disturbance of some protected species or their places of shelter, such as those covered by the Habitats and Species Regulations may require a licence from Natural England. Harm to others may be avoided by timing of works or precautionary working practices.
- 7.4** Fortunately, in most cases, it is relatively straightforward to not only avoid harm to protected species during the course of works, but also to provide for their continued harmonious existence following redevelopment. Best practice is for your ecological consultant to draw up a biodiversity section of the Construction Environmental Management Plan which details how inadvertent harm to wildlife during site preparation and construction can be avoided by good working practices and timing of works. The CEMP should be available to site operatives on site throughout the construction process, and may often be required as a planning condition.
- 7.5** Bats and swifts are species that have become highly dependent on human habitations for their survival. However, one reason for their decline over the twenty first century has been the adoption of modern building and renovation techniques which no longer allow them to access buildings as they traditionally have done.
- 7.6** This is a situation which can be remedied quite easily and cost-effectively by the integration of bat and swift bricks into the external fabric of buildings. Integrated boxes are built into the external fabric of buildings with the intention that they should last the lifetime of the building. Such features as swift bricks and bat bricks/tubes have an opening from the outside that leads to a self-contained chamber and therefore pose no risk from bats or birds entering the inside of the building. Integrated boxes require no maintenance and the occupants cause no nuisance to the householder and are less visually obtrusive and longer lasting than externally attached boxes. Wooden boxes and boxes attached to trees or low on buildings are particularly prone to disturbance or decay.
- 7.7** Swift bricks also allow access for more generalist species, so that while provision for other species on trees and buildings by developers is encouraged where this may be appropriate, it is not an acceptable substitute for the provision of integrated swift bricks.
- 7.8** The provision of swift and bat bricks should be planned by an ecologist and the locations and specifications of the proposed bricks should be illustrated on the architect's drawings, submission of which with the planning application will reduce the requirement to attach conditions. A report on the successful implementation of the scheme must be returned to the council prior to the first occupation of the buildings.

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- 7.9** The following link contains a useful overview of swift bricks and has links to a list of suppliers of different designs for a range of building materials <https://www.swift-conservation.org/> Further information on bat bricks can be found at <https://www.bats.org.uk/>
- 7.10** Provision for other human-dependent species such as swallows and barn owl may be appropriate in more rural areas or urban fringe areas, particularly where schemes such as barn conversions may otherwise reduce their available habitat. Where appropriate, these species are likely to require specialist provision to be proposed by an ecological consultant. An example of this can be viewed at: <https://www.barnowltrust.org.uk>.
- 7.11** Hedgehogs have undergone a dramatic decline in recent decades. One way to try to reverse this is to provide opportunities for hedgehogs to forage between gardens. This can be facilitated by the provision of small gaps (13cm x 13cm) at the bottom of garden fences which should be incorporated into new developments, together with the provision of hedgehog homes. Excavations should not be left open overnight during construction, unless an escape ramp is provided for hedgehogs and other terrestrial mammals. For further advice visit <https://www.hedgehogstreet.org>.
- 7.12** In locations close to ponds there is a possibility for amphibians to become fatally trapped in gully pots in roads or other drainage furniture. In these situations, mitigation measures must be provided for amphibians, in consultation with the Highways Authority (where these are to be adopted). As well as foraging widely at night, amphibians travel seasonally between spring and summer breeding ponds and terrestrial habitat where they overwinter. They can fall into road-wells following the kerb round whilst seeking an exit. Many may then become fatally trapped in gully pots. These should be avoided where possible in favour of suds.
- 7.13** However, where the use of gully pots cannot be avoided, if they are offset from kerbs by 10cm this significantly reduces the number of amphibians that become trapped. Alternatively, 'wildlife kerbs' provide a recess into the face of the kerb, examples are provided at <https://www.legacy-habitat.co.uk>. As a last resort, 'ladders' can enable trapped amphibians to escape, however, these may require regular maintenance to ensure that they remain correctly aligned and effective over time.
- 7.14** The above is intended only as a brief guide to highlight the types of measure that may easily and cheaply be put in place in order to meet the specialist requirements of some of the species most frequently come across in the course of development. Your ecological consultant can provide further advice on how the needs of such species can be met.

Appendix

Strategic Significance Map for use with area-based habitats 1

Technical Background

- 1.1** The Strategic Significance Map is designed to identify strategic significance scores for use in the metric and to aid in the search for appropriate offsetting areas. The map does not replace the need for detailed surveys for either development sites or offsetting sites.
- 1.2** The map covers the Harrogate district and enables users to focus on specific areas and select relevant habitat types. The map can viewed [here](#). To view the map in alternative formats please contact the Policy and Place Team on 01423 500600.
- 1.3** The map has been created with the help of the North and East Yorkshire Ecological Data Centre (NEYEDC) and primarily uses data from The UK Centre of Ecology and Hydrology (UKCEH) Land Cover Map, 2019 (20m classified pixels). ⁽³⁾
- 1.4** To create the Land Cover map UKCEH have identified the area-based habitats (woodland, grassland, heathland and bog) from satellite imagery and classified them at 20m pixel resolution into land cover categories. These categories are closely aligned to UK Broad Habitats.
- 1.5** NEYEDC has aggregated these pixels into hexagons of approximately 400m and the data for key broad habitats has been aggregated into 3 representative categories (woodland, semi-natural grassland and heathland and bogs). The rivers and streams margins layer has been derived by NEYEDC from rasterisation of a hydrological dataset with the smallest tributaries (level 1 Stahler layer) removed. This technique was used for rivers and streams because the satellite imagery failed to adequately pick up either small ponds or long narrow water bodies. It was considered that the importance of streams to the development of a robust network of strategic habitats was too great to be omitted, especially for wetland habitats, given the proximity of many streams to a wider floodplain or water-table.
- 1.6** Harrogate Borough Council has set the thresholds at which the different scoring levels apply and these are given in Table 1 below. The thresholds are based on percentage cover for the three area-based habitats and on length for rivers and streams. Cells containing each of the habitat types are categorised into one of three levels, which is associated with a different multiplier. The lowest level of existing habitat is given a score of 1.00 i.e no multiplier is applied and this level of presence of the habitat is not shown on the map. Cells categorised as Habitat Creation Opportunity Areas contain an intermediate amount of existing habitat and are considered to be the areas which would benefit most from habitat creation, and which therefore attract the highest multiplier (Score 1.15 or 15% increase). These are coloured distinctly but with a lighter shade on the map. Cells made up of High Levels of Existing Habitat already support a high level of the relevant habitat. It is likely that this habitat could be supplemented or enhanced, but with less benefit to the development of the strategic network and hence these attract a 10% multiplier.
- 1.7** The highest score is awarded to the habitats which are already present at an intermediate level. These are considered to be the most advantageous areas as they have more scope for enhancements than areas with a large percentage of existing habitat cover but still have enough existing habitat cover to make “bigger, better and more joined-up”.

Habitat Type	Broad Habitats Included	Level of Existing Habitat	Multiplier	Threshold	Colour
Woodland	Broadleaved, Mixed & Yew Woodland	Low Level of Existing Habitat	1.00 (0%)	0-10%	No Fill

3 Morton, D.; Marston, C.G.; O'Neil, A.W.; Rowland, C.S. (2020). Land Cover Map 2017 (land parcels, N. Ireland) NERC Environmental Information Data Centre.

1 Strategic Significance Map for use with area-based habitats

Habitat Type	Broad Habitats Included	Level of Existing Habitat	Multiplier	Threshold	Colour
		Habitat Creation Opportunity Area	1.15 (15%)	11-60%	Light Green
		High Level of Existing Habitat	1.10 (10%)	61-100%	Dark Green
Heathland and Bog	Dwarf Shrub Heath, Bog, Inland Rock	Low Level of Existing Habitat	1.00 (0%)	0-10%	No Fill
		Habitat Creation Opportunity Area	1.15 (15%)	11-94%	Light Purple
		High Level of Existing Habitat	1.10 (10%)	95-100%	Dark Purple
Semi-Natural Grassland	Acid Grassland, Neutral Grassland, Calcareous Grassland.	Low Level of Existing Habitat	1.00 (0%)	0-5%	No Fill
		Habitat Creation Opportunity Area	1.15 (15%)	6-60%	Light Brown
		High Level of Existing Habitat	1.10 (10%)	61-100%	Dark Brown
River & Stream Margins (This layer identifies offsetting opportunities for area based habitats only and should not be used to score rivers and streams)	Freshwater, Wetland, Fen, Marsh and Swamp (Habitat Creation could include wet woodland or floodplain meadow)	Low Level of Existing Habitat	1.00 (0%)	0-10m	No Fill
		Habitat Creation Opportunity Area	1.15 (15%)	10-750m	Light Blue
		High Level of Existing Habitat	1.10 (10%)	750m+	Dark Blue

Table 1.1 Broad Habitats and Thresholds