



Design Guide 13

Biodiversity & Protected Species

13.1 BIODIVERSITY

NB Owing to the new West Oxfordshire Local Plan 2031 not being due for adoption until 2017, the following Local Plan Policy information may be subject to further amendment. For confirmation of the current Policy position, please contact Planning Policy.

Biodiversity is defined as the variety of life on earth; all plants, animals and the places they live. National, regional and local planning policy and guidance aims to ensure that there is no net loss of biodiversity in the future, and where possible there are net gains in biodiversity.



Fig. 1 Ecologically rich local woodland

The protection and enhancement of biodiversity is a key component of sustainable development, and thus has significant implications for design.

In 2013 the first British Standard on biodiversity management was published: *BS42020:2013 Biodiversity – Code of Practice for Planning and Development*.

This code of practice sets out how biodiversity, protected species and habitats should be

considered in relation to planning applications, with the aim of structuring the ecological assessment methods employed in England and Wales to support planning applications.

The National Planning Policy Framework (NPPF 2012) sets out wide-ranging goals in respect of the natural environment in Chapter 11 – including the overarching aim that:

The planning system should contribute to and enhance the natural and local environment by (...) minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

National guidance has been supported and expanded upon with the publication of a detailed biodiversity strategy for England – *Biodiversity 2020: A Strategy for England's wildlife and ecosystem services*, which sets out the strategic direction for biodiversity policy for the next decade, with the aim of halting the loss of biodiversity and continuing to reverse previous losses through targeted actions for species and habitats.

At a county level, the Oxfordshire Biodiversity Action Plan (BAP) has identified 36 Conservation Target Areas (CTAs) within the county, with the aim of restoring biodiversity at a landscape-scale through the maintenance, restoration and creation of Biodiversity Action Plan priority habitats.

See also: <https://www.oxfordshire.gov.uk/cms/content/oxfordshires-biodiversity-action-plan>

The above national and regional policy and guidance is reflected in Policy EH2 of the emerging West Oxfordshire Local Plan 2031:

13.2 POLICY EH2 – BIODIVERSITY

The biodiversity of West Oxfordshire shall be protected and enhanced to achieve an overall net gain in biodiversity, including by:

- giving sites and species of international nature conservation importance and nationally important sites of special scientific interest the highest level of protection from any development that will have an adverse impact;
- requiring a Habitats Regulation Assessment to be undertaken of any development proposal that is likely to have a significant adverse effect, either alone or in combination, on the Oxford Meadows SAC, particularly in relation to air quality and nitrogen oxide emissions and deposition;
- protecting and mitigating for impacts on priority habitats and protected species and their importance individually and as part of a wider network; avoiding loss, deterioration or harm to locally important wildlife and geological sites and sites supporting irreplaceable habitats (including ancient woodland and aged or veteran trees), UK priority habitats and priority species, except in exceptional circumstances where the importance of the development significantly and demonstrably outweighs the harm and the harm can be mitigated through appropriate measures and a net gain in biodiversity is secured;
- ensuring development does not prevent the achievement of the aims of the Conservation Target Areas (CTAs);
- promoting the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, particularly within the CTAs;

- taking all opportunities to enhance the biodiversity of the site or the locality, especially where this will help deliver networks of biodiversity and green infrastructure and UK priority habitats and species targets and meet the aims of Conservation Target Areas.

All developments will be expected to provide towards the provision of necessary enhancements in areas of biodiversity importance.

The management of biodiversity, as well as being important in its own right, has significant implications for the maintenance and enhancement of local character.

This also forms a core component of the emerging Local Plan, as expressed in **Policy EH1 – Landscape Character**:

The quality, character and distinctiveness of West Oxfordshire's natural environment, including its landscape, cultural and historic value, tranquillity, geology, countryside, soil and biodiversity, will be conserved and enhanced.

13.3 ASSESSING NET GAIN OR LOSS TO BIODIVERSITY

In order for an overall net gain in biodiversity to be delivered, it is fundamentally important that a consistent method for the measurement of net biodiversity gains or losses for development is established.

This can be achieved through the use of the Biodiversity Metric produced as part of the DEFRA Biodiversity Offsetting Guidance: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69531/pb13745-bio-technical-paper.pdf

Alternatively, there is also a version produced by the Environment Bank: <http://www.environmentbank.com/news/post.php?s=2014-10-31-toolkit-for-local-planning-authorities>

The aim of the metric is to provide an effective, objective and quantifiable mechanism to assess net loss or gain in respect of biodiversity.

Use of the Biodiversity Metric entails assigning an ecological unit score to any given piece of land based on its ecological value. If a development is brought forward on a piece of land, the baseline score must be equalled or exceeded by a development proposal to meaningfully deliver no net loss or net gain. If the baseline figure cannot be reached on the development site then a receptor site in another location (a biodiversity offset) must be proposed together with an in-perpetuity management agreement.

Assessed against Local Plan Policy EH2 and the requirement for an overall net gain in biodiversity, development proposals that would lead to unacceptable harm to biodiversity, protected species and habitats will not be permitted.

13.4 BIODIVERSITY AND NEW DEVELOPMENT

New development, whether large or small, residential or non-residential, can have profound consequences for local landscape, habitats and wildlife. It is important that such issues are thoroughly considered before the submission of an application; and suitable Green Infrastructure (GI) measures incorporated.

In the case of applications where the impact upon biodiversity may be significant, a Biodiversity Impact Assessment may be needed as part of the submission, incorporating a report on the application of the Biodiversity Metric in order to

demonstrate clearly whether the development will achieve a net gain in biodiversity.

In addition, it is expected that all schemes will:

- *Aim to maintain and enhance, restore, or ideally add to the net biodiversity and geological conservation interests of the District;*
- *Avoid direct loss or damage to priority habitats or species;*
- *Mitigate/ compensate for any unavoidable loss or damage to habitats or species;*
- *Incorporate beneficial biodiversity and geological features within the design of the development;*
- *Encourage habitat creation.*

13.5 PRIORITY HABITATS

For new development, be it a single residential dwelling or a large mixed use scheme, the existing landscape, vegetation and wildlife context must be carefully considered. Established plant and animal communities must be conserved during and after construction, and provision must be made for such assets long into the future.

There may be biodiversity enhancements through the use of Green Infrastructure (GI) and the creation or restoration of habitats – particularly indigenous habitats – which support rare or protected species. Planting schemes should reflect not only the broad landscape character as set out in the Vegetation Character Areas map (see also: Design Guide 3: Geology & Landscape), but also the specific local context as described in the *West Oxfordshire Landscape Assessment* and elsewhere.

West Oxfordshire is rich in locally distinctive habitat types, including grasslands (including

lowland meadows, calcareous and acid grasslands), woodlands (including ancient woodland, lowland mixed deciduous woodland and wet woodland), heathland, wood pasture, parkland and traditional orchards. These in turn are home to a diverse mix of locally distinctive flora, including for example valuable hay meadow and limestone grassland species in the Wolds and river meadowlands.

In line with Policy EH2, at an early stage in any development proposal, consideration should be given as to how both direct and indirect negative impacts to habitat can be avoided, and what enhancements might take place or what mitigation measures may be needed – especially in the case of Local Wildlife Sites and irreplaceable habitats (for example, by demonstrating how changes in layout have been made in order to avoid direct or indirect impacts).



Fig. 2 Village pond and trees in the centre of Ducklington

There are various mechanisms whereby development may have indirect impacts on valuable habitats. These include: a) Hydrological impacts – a hydrological assessment may be required for development close to high value water dependent habitats, with SuDs being one

potential method of mitigation; b) Air pollution impacts – consideration may be required for traffic levels within 200m of sensitive habitats; and Recreational impacts – habitats vary greatly in terms of their resilience to recreational pressure (for example, the trampling caused by large numbers of walkers).

In order to ensure that the management of habitats retained within or adjacent to developments is secured long term, as well as any necessary measures for mitigation, compensation or enhancement, an Ecological Management Plan should be provided with applications. Measures will be secured through the use of planning conditions and Section 106 Agreements.

Further to these considerations, specific attention must be paid to the following habitats and wildlife:

13.6 Trees and hedgerows

As well as being important natural components in their own right, contributing much to the appearance and character of the District, trees and hedgerows also form vital habitats for wildlife, and can provide important corridors between otherwise isolated habitats.

Some hedgerows and trees are protected by law, so if your application involves the removal of a part or the whole of a hedge or tree, you should first contact the District Landscape and Forestry Officer. If the application involves planting, careful attention should be paid to the species used.

Whilst local, native species will often be the most appropriate choice (particularly for hedgerows), non-indigenous ornamental species, for example, may sometimes be an appropriate alternative. Again, the District Landscape and Forestry Officer can provide guidance.

13.7 Rivers, watercourses and ponds

Watercourses – including ditches, streams and rivers – together with lakes, ponds, support a wide range of wildlife. Water Voles and amphibians (most notably the great crested newt) are protected by law, so if your application affects a watercourse, body of water or surrounding habitat, you should first contact the Species Officer at English Nature, or the County Ecologist.

13.8 Bats

It is illegal to kill, injure or disturb bats or their roosts, both occupied and unoccupied. As well as occupying natural sites, such as trees and caves, bats roost in roof and wall spaces. For this reason, work in these areas, including the blocking up of bat entrance holes, can disturb them. If you are concerned that your application may affect bats, you should contact the Species Officer at English Nature or the County Ecologist.

If your application involves an unoccupied building or may affect a tree or trees with cavities used by bats, it may require a survey by a qualified professional, which should then be made available to the planning authority. English Nature can supply a list of licensed bat surveyors, and DEFRA provides information about licences and legal protection: www.defra.gov.uk

13.9 Birds

All birds and their nests are protected by law. For this reason, no work that might disturb them – including building work, tree felling and hedge clearance – should take place in the breeding season, which generally runs from the beginning of February to the end of August.

Certain species, such as swifts and house martins, have adapted their nesting habits to take advantage

of manmade structures; in particular older houses, cottages and barns. Swifts, for example, occasionally nest in rubble walls, and their nest sites are thus vulnerable to repointing, which might block up nest holes. By identifying such habitats at an early stage, it becomes possible to offset any damage or loss – for example, by leaving gaps in the pointing to encourage the continued use of the site by swifts.

13.10 Badgers

Badgers and their setts are protected by law. Badgers have large territories and travel widely to feed. For this reason, even development at some distance from a sett can have implications for badgers. If your application affects a badger sett in any way, please contact the County Ecologist.

NBA variety of other plant and animal species are protected. A full list is contained at: <https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation>.

13.11 BIODIVERSITY ENHANCEMENTS

Two sources in particular are invaluable when it comes to providing detailed information about biodiversity and priority habitats across Oxfordshire. The Oxfordshire Wildlife and Landscape Study or OWLS (<http://owls.oxfordshire.gov.uk/wps/wcm/connect/occ/OWLS/Home/>) comprises a detailed investigation of landscape character and biodiversity across the county. Conservation Target Areas (CTAs) in Oxfordshire, meanwhile, are detailed on the Wild Oxfordshire website (<http://www.wildoxfordshire.org.uk/biodiversity/conservation-target-areas/>) – and aims for their management detailed.

Where there is potential for a development to provide for the maintenance, restoration or creation of habitats, these should help to deliver the aims of any Conservation Target Area that

is within the vicinity of the development. Where there is no CTA within the vicinity, then newly created habitats should reflect those relevant to the area as identified in the Oxfordshire Wildlife and Landscape Study. The layout of the development should ensure continued or improved connectivity between existing and new habitats. Provision should be made for long term management of habitats.

Biodiversity in built development is not only about helping wildlife. It is also about creating a much better environment for people, and also about wider 'ecosystem service' benefits to people. There is clear evidence that wildlife habitats in urban areas can also have a highly significant beneficial effect for humans by:

Reducing the urban heat-island effect in a warming world where summer heatwaves can make urban areas dominated by tarmac, concrete and brick – as opposed to street trees, wetlands and other green space – increasingly unbearable and harmful to health;

Reducing air pollution, particularly by removing gaseous pollutants from vehicle exhausts, such as nitrogen oxides and particulates, which are increasingly shown to be harmful to human health;
Reducing flood risk, by increasing infiltration and therefore slowing run-off into watercourses.

13.12 GREEN INFRASTRUCTURE

Green Infrastructure (GI) is defined by the National Planning Policy Framework (NPPF) as: *a network of multifunctional green space, both new and existing, both rural and urban, which supports natural and ecological processes and is integral to the health and quality of life of sustainable communities.*

Green Infrastructure (GI) is about more than simply delivering traditional infrastructure in a

greener way, but stresses multifunctionality, using urban networks of natural and semi-natural features (such as green spaces, rivers, street trees and parks) to deliver a wide range of ecosystem services. As well as having clear potential benefits for biodiversity, GI can also lead to enhancements in people's health and wellbeing.

See also: <https://www.westoxon.gov.uk/media/896990/Biodiversity-and-Planning-in-Oxfordshire-BBOWT-and-OCC-full-document.pdf>;

British Standards BS 42020 'Biodiversity – Code of Practice for Planning and Development.

Thames Valley Environmental Record Centre: <http://www.tverc.org/cms/content/data-searches>

For further, detailed guidance, or if you are unsure about the status of a species, please contact the Species Officer at English Nature or the County Ecologist.

See also: Design Guide 11: New Development & Context.