Background paper 005b

Title: Biodiversity

This paper addresses the protection of biodiversity, including designated sites, as well as enhancing biodiversity.
Relevant Local Plan Objective(s): • Secure strong, well-connected ecological networks and net gains in biodiversity. • Be resilient and adaptable to climate change and resistant to flood risk and its impacts on people and property. • Protect and enhance Oxford's green and blue network.
SA Objective(s): 10. To conserve and enhance Oxford's biodiversity.
SEA theme(s): Landscape, biodiversity, flora, fauna.

1. Introduction

1.1 An important component of Oxford's Green Infrastructure network are the ecological spaces which support a variety of nationally and locally important species of flora and fauna. Some of these spaces are designated for their importance and protected by national legislation, some are protected through local policies where they are of county or city importance, meanwhile other informal spaces like gardens and wild areas within green spaces also play an important role but are not designated as such. The ecological network is essential to supporting 'biodiversity' in the city, by which we mean the abundance of species such as plants and animals for which the city is home.

2. Policy Framework/Plans, Policies, Programmes (supporting Task A1 of Sustainability Appraisal)

National Planning Policy Framework (Dec 2024)

2.1 In relation to Biodiversity, the NPPF sets out:

- **Para 187:** that plans should: recognise the wider benefits from natural capital and ecosystem services such as trees and woodland, and minimise impacts on and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- **Para 188:** that Local Plans should distinguish a hierarchy of designated sites and take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure.
- **Para 192:** that local plans should identify, safeguard components of wildlife-rich habitats and wider ecological networks; promote the conservation/restoration/enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify/pursue opportunities for securing measurable net gains for biodiversity.

Planning Practice Guidance and National Design Guide/Model Design Code

2.2 The online Planning Practice Guidance has a dedicated page for the natural environment including green infrastructure and biodiversity considerations. In relation to biodiversity (covered in paras 9 to 35), the PPG includes various pieces of guidance including on responsibilities regarding protected and priority species and habitats; 'proportionate' information and assessment required on biodiversity impacts at all stages of development; local ecological networks and nature recovery networks; application of mitigation hierarchy, biodiversity net gain, and promotion of woodlands.

2.3 The National Design Guide is a material consideration and forms part of national planning guidance. The guide sets out ten characteristics of good design, of which designing to incorporate nature is one. It highlights the value that natural spaces can bring to people and encourages networks of green and blue infrastructure within the design of spaces as well as making space for biodiversity.

The Environment Act

2.4 This legislation received Royal Assent on 9th November 2021 and includes provisions to strengthen and improve the duty on public bodies to conserve and enhance biodiversity. In particular, it introduces a mandatory requirement for net gains in biodiversity of 10% from most forms of new development approved through the planning system, this must be calculated using the DEFRA Biodiversity Metric and informed by a biodiversity gain plan which details the strategy for how biodiversity net gain will be delivered. The Act also requires the preparation and publication of Local Nature Recovery Strategies to support Nature Recovery Networks by setting out priorities for nature recovery and proposing actions in the locations where it would make a particular contribution to achieving those priorities. These Recovery Strategies are to be prepared by 'Responsible Authorities' as appointed by the Secretary of State, Oxford falls into the strategy that will cover the Oxfordshire County area.

Natural Environment and Rural Communities Act 2006

2.5 Section 40 of this Act places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity.

Conservation of Habitats and Species Regulations 2017 (as amended)

2.6 Legislation that previously transposed the European Habitats Directive (European Commission 92/43/EEC) into English law was amended upon exit from the EU in order to transfer functions from the European Commission to the appropriate authorities in England and Wales but otherwise functions broadly the same. The Regulations designate Special Areas of Conservation (SAC) and Special Protection Areas as priority locations for biodiversity conservation. In Oxford, this is the Oxford Meadows SAC, and near Oxford are the Cothill Fen SAC and Little Wittenham SAC. The effects of any plan or programme on these designated areas must be assessed via a Habitats Regulations Assessment (HRA).

National Parks and Access to the Countryside Act 1949

2.7 Section 21 of this Act enables local authorities to designate Local Nature Reserves where they are of high natural interest in the local context.

Oxford Local Plan 2036

2.8 As well as overarching policies for protection of the GI network (policy G1) and providing new green features (policy G8), there are a number of individual policies for different aspects of the GI network including policy G2 which addresses biodiversity and the

ecological network specifically, including protections for national and locally designated sites.

3. Current situation (supporting Task A2 and A3 of Sustainability Appraisal)

3.1 It has long been noted that the biodiversity around the country is under intense pressure and has been in prolonged decline. This biodiversity loss is particularly pronounced in cities and urban areas such as Oxford as wildlife is forced out of natural habitats due to development pressure, recreational disturbance, pollution from various sources, as well as climate change. A particular issue in the city relates to the ecological conditions in Oxford's rivers and streams as water quality is being put under pressure from various sources including sewage discharges, invasive species and pollutants arising from agricultural practices upstream. This issue is explored in greater detail in the separate Natural Resources Background paper and more fully in the Water Cycle Scoping Study.

3.2 Nevertheless, Oxford benefits from a concentration of rare and valuable habitats that are important refuges for a variety of flora and fauna, including lowland hay meadows, calcareous grassland, alkaline spring fen (among other types of wetland) as well as pockets of woodland. A number of sites have been designated as being of particular importance to ecology including:

The Oxford Meadows Special Area of Conservation (SAC)

3.3 An internationally important site of nature conservation importance. The SAC is situated on the broad floodplain of the River Thames to the west and north-west of Oxford. The site is made up of an extensive complex of meadows and pastures which support species-rich grassland vegetation which would once have been widespread on floodplains in lowland England, but which is now very rare. The qualifying features for which the area was designated as a SAC are the presence of Lowland Hay Meadows habitat and the species *Apium repens* (creeping marshwort), which is a very rare plant of seasonally-flooded habitats. The Port Meadow population of this plant remains the largest and most consistently recorded in the UK.

3.4 Natural England's assessments indicate that the colony of *Apium repens* is under pressure from hydrological changes in the areas, possibly due to deeper, more prolonged and frequent flood episodes. There is also concern about invasive species moving into the habitat from other parts of the meadow and outcompeting the plant. Additionally, previous liaison with Natural England relating to Habitat Regulations Assessments work undertaken by the Council for the SAC have identified potential vulnerabilities arising from the impacts of air pollution (from traffic on the nearby roads), recreational disturbance due to increased visitors to the area (particularly those with dogs), as well as impacts from changes to hydrology and water quality as noted above.

3.5 There are also two other SACs within 10km of Oxford, these are:

- **Cothill Fen SAC** is a 43ha site located just over 5km from the city boundary. It is designated for its lowland valley mire, which contains one of the largest surviving examples of alkaline fen vegetation in central England. In 2015, the last year of analysis of Cothill Fen, the alkaline fens were of good overall ('global') value, and the alluvial forests were of significant overall ('global') value. It is highly threatened by pollution to groundwater and human-induced change in hydraulic conditions.
- **Little Wittenham SAC** is a 69ha site located around 8.5km from the city boundary. It is designated because it contains one of the best-studied great crested newt sites in the UK. In 2015, the last year of analysis of Little Wittenham, it was of good overall ('global') value, but it is highly threatened by non-native invasive species.

Sites of Special Scientific Interest (SSSIs)

3.6 These nationally important designated sites include four geological SSSIs and eight ecological SSSIs that are wholly or partly within the city, as well as others nearby. Four of these SSSIs comprise the Oxford Meadows SAC: Cassington Meadows SSSI; Pixey and Yarnton Meads SSSI; Port Meadow with Wolvercote Common and Green SSSI; and Wolvercote Meadows SSSI.

3.7 Natural England intermittently publishes condition assessments for the units comprising the SSSIs, which is available on the Designated Sites View website. These assessments are usually 5-10 years old, as such the condition may have changed in the intervening years since the last assessment was completed. As can be seen in Figure 3.2 and Table 3.2, the SSSIs are in varying condition, and of the twelve within or partially within the city, two SSSIs are in unfavourable condition and three are partly in unfavourable condition, whilst the others are in a favourable condition.

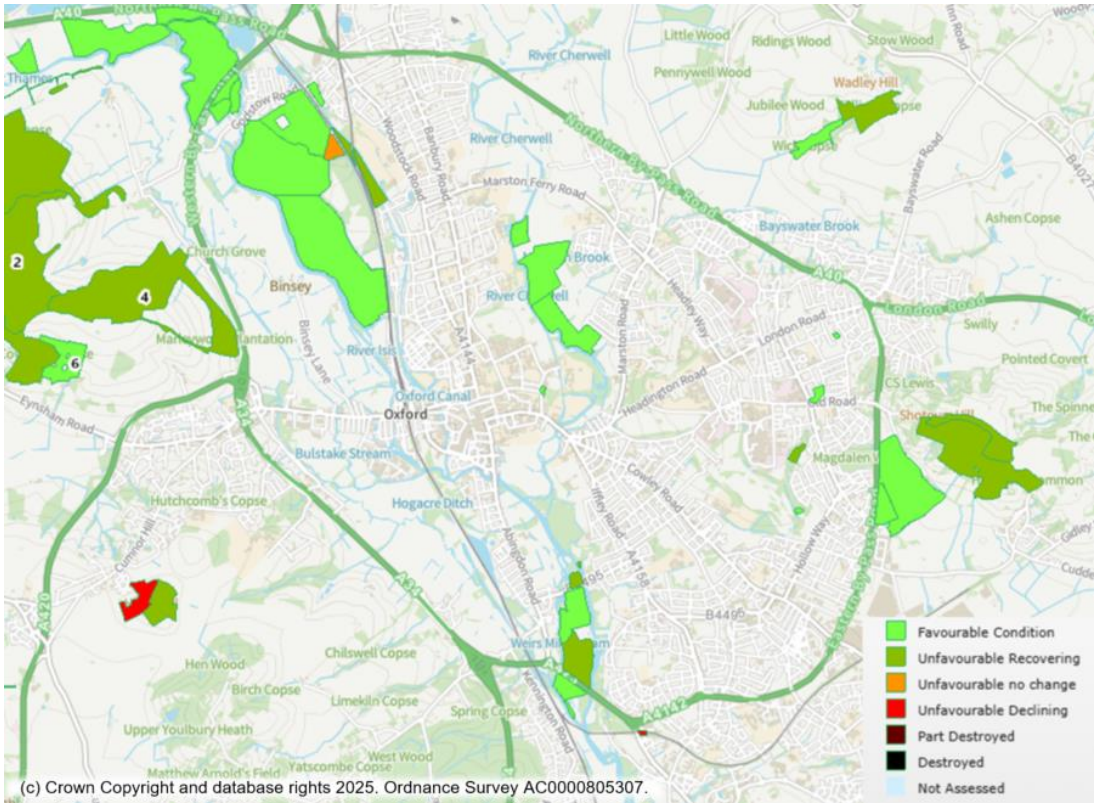


Figure 3.2 - Locations of Special Scientific Interest (SSSIs) within and around Oxford and their condition, source: DEFRA MAGIC website accessed 13.01.25)

Table 3.2 - Condition assessment for the Sites of Special Scientific Interest (SSSIs) within Oxford or nearby (Natural England)

Site of Special Scientific Interest (SSSI)	**Size in hectares**	**Within city?**	**Unit(s) condition**
Brasenose Wood and Shotover Hill	109.24ha	Partially	42.67% Favourable; 57.33% Unfavourable - recovering
Cassington Meadows	6.89ha	Nearby/outside city *(also comprises part of Oxford Meadows SAC)*	100.00% Favourable
Hook Meadow and the Trap Grounds	11.85ha	Yes	67.56% Unfavourable - recovering; 32.44% Unfavourable – no change
Iffley Meadows	36.14ha	Partially	53.80% Favourable; 46.20% Unfavourable - recovering
Littlemore Railway Cutting	0.50ha	Yes	100.00% Unfavourable declining
Lye Valley	2.34ha	Yes	22.96% Favourable; 77.04% Unfavourable - recovering
Magdalen Grove	0.43ha	Yes	100.00% Favourable
Magdalen Quarry	0.34ha	Yes	100.00% Favourable
New Marston Meadows	44.70ha	Yes	100.00% Favourable

Pixey and Yarnton Meads	86.38ha	Partially *(also comprises part of Oxford Meadows SAC)*	100.00% Favourable
Port Meadow with Wolvercote Common and Green	167.15ha	Yes *(also comprises part of Oxford Meadows SAC)*	100.00% Favourable
Rock Edge	1.72ha	Yes	100.00% Favourable
Sidling's Copse and College Pond	21.71ha	Nearby/outside city	33.19% Favourable; 66.81% Unfavourable - recovering
Wolvercote Meadows	7.06ha	Yes *(also comprises part of Oxford Meadows SAC)*	100.00% Favourable
Wytham Ditches and Flushes	2.74ha	Nearby/outside city	100.00% Unfavourable - recovering
Wytham Woods	423.83ha	Nearby/outside city	3.50% Favourable; 96.50% Unfavourable - recovering

Local ecological designated sites

3.8 The city includes a number of locally important sites made up of Local Wildlife Sites, Oxford City Wildlife Sites and Local Nature Reserves. These are non-statutory sites of local importance for nature conservation, recognised for having high conservation value, containing rare species or habitats whose protection is bestowed upon them via the policies of the Local Plan rather than national legislation. This means that our policies will be particularly important for these local features which do not reach of the benchmark of higher protections and yet can still be valuable refuges of priority habitats and for local species.

3.9 Local Wildlife Sites are designated through criteria that is shared across the county, meanwhile Oxford City Wildlife Sites are sites of importance to the city which were established as part of work on the Local Plan 2036 (replacing what were previously known as Sits of Local Importance to Nature Conservation or 'SLINCS'). Whilst the overall interest of OCWSs has not been considered sufficient to be of county level importance in the same way LWSs are, with appropriate management, many do however have the potential to become LWSs in the future. The Thames Valley Environmental Records Centre (TVERC), undertake yearly reviews of sites across the county and assign LWS status on new sites where these are deemed to meet specific criteria.

3.10 As part of its work on the Local Plan 2040, the Council undertook a high-level review of its existing OCWSs to consider whether it was still appropriate to protect them and whether there were additional sites that might meet the criteria of local designation as either an OCWS (or LWS). This review was supported by a limited number of new surveys undertaken throughout 2023. As set out in Table 3.3, the work resulted in four previously proposed OCWSs being formalised (although in practice, these were already treated as full OCWS sites because of their proposed status at the time), as well as the addition of three new OCWSs. In addition, two sites were taken forward as LWSs via the county-wide selection process.

Table 3.3 - Recent updates to ecological network of local sites in city

Site name	Result of review process
Mileway Gardens	Previously proposed OCWS – Designation confirmed
Churchill Hospital Field	Previously proposed OCWS – Designation confirmed
University Parks	Previously proposed OCWS – Designation confirmed
Stansfeld Study Centre	Previously proposed OCWS – Designation confirmed
Burgess Field	New OCWS designation confirmed
Dunstan Park	New OCWS designation confirmed
CS Lewis Reserve	New OCWS designation confirmed
Showman's Field	New LWS designation confirmed
Marston Brook Meadow	New LWS designation confirmed

Other important areas of habitat

3.11 Beyond these formally designated sites within the city, there are also many of types of habitats which have been formally identified as being of importance in other ways. This includes Priority Habitats under Section 41 of the Natural Environment and Rural Communities Act 2006, many of which are included within Conservation Target Areas that were identified as part of work on Oxfordshire's Biodiversity Action Plan (BAP) for being the most important areas for wildlife conservation in Oxfordshire and where targeted conservation action will have the greatest benefit. It should be noted that the expectation is that the mapping of the Local Nature Recovery Strategy will subsume and replace the previous Conservation Target Areas.

3.12 There are also areas of irreplaceable habitat in the city, which are afforded significant protection through national planning policy. These types of habitat include several areas of ancient woodland, including at Brasenose Wood and at Shotover Country Park which straddles the boundary of the city to the east, as well as areas of lowland fen habitat such as can be found in the Lye Valley SSSI.

Protected species

3.13 The various types of habitat discussed above are important for supporting a range of wildlife species, many of which are under direct threat from pressures like habitat loss, climate change and pollution. The city has records of a variety of notable species, again as identified under Section 41 of the Natural Environment and Rural Communities Act 2006 referenced above. Species that are present in Oxford and that are protected under the Act include, but are not limited to: Hedgehogs, Water voles, Dormice, Swifts and Slow worms.

3.14 It is not only the natural environment which supports some of these different types of wildlife either. There are certain species present in the city which have come to rely upon elements of the built environment to support their life cycle. For example, urban birds like

swifts which return to the UK every spring to breed and raise young and that have experienced significant declines. Swifts have come to rely on buildings for nesting and will often return to the same nest site each year so the re-development and demolition of buildings, and loss of old nest sites can have further negative impacts. The development process can support the species through careful design and inclusion of artificial roosting features.

4. Likely trends without a new Local Plan (supporting Task A2 and A3 of Sustainability Appraisal)

4.1 The currently adopted Local Plan 2036 will maintain protection of ecological sites within the city (via LP2036 policy G2) alongside protection of the network of green infrastructure across the city. The Local Plan 2036 sets out that development that results in a net loss of sites and species of ecological value will not be permitted and includes specific details of protection/mitigation required for the SAC, SSSIs and Local sites. Alongside this, protection exists within national policy, such as affording protection to nationally designated sites as well as protections more generally to open space.

4.2 The requirement of 5% net gain in biodiversity in Local Plan 2036 policy G2 for all major developments proposed on greenfield sites or brownfield sites that have become vegetated has already been superseded by the 10% requirement of the Environment Act. With the mandatory 10% biodiversity net gain being set as a condition unrelated to the Local Plan and with the expectation being that the associated habitat is secured for at least 30 years, there is potential that biodiversity could receive increasing support going forwards without a new Local Plan, however, opportunities for this net gain to be delivered within the city are likely to be limited. The county's Local Nature Recovery Strategy (LNRS) will identify opportunity areas for enhancement actions to improve biodiversity in due course, however, the LNRS cannot force enhancements nor assign additional protection, thus these opportunities will rely on willing landowners and sufficient sources of funding, thus their benefit for biodiversity is not certain.

4.3 The GI study 2022 noted the unequal distribution of certain types of green space and this is likely to remain the case in the absence of the new Local Plan – and this would include more nature rich spaces. The constrained nature of the city means that opportunities for creation of significant new green spaces within the denser urban areas will remain limited and smaller-scale enhancement are likely to be more forthcoming where resource and changes to management practices are forthcoming. A growing population as the city grows means that green spaces including those for nature will continue to need to be protected and access enhanced wherever possible. Where additional recreational pressure is not mitigated through new or improved facilities, this could lead to a deterioration of these spaces.

4.4 Climate change is also likely to put pressure on many green spaces, particularly ecological sites (discussed further below). Increases in summer temperatures, milder winters, changes in rainfall distribution and seasonality, and more extremes of weather are anticipated long term impacts of climate change. The effects of these changes are uncertain and may occur as sudden and unexpected step changes. Potentially they could result in the need for additional management measures (e.g. to address risk from wildfires during drought seasons), or make spaces unusable due to additional flooding throughout the year. Indirectly, adaptation actions by other sectors that are key to land and water management may force changes in how certain spaces are utilised (e.g. to secure additional land for flood relief).

4.5 Climate change could influence biodiversity in various ways such as by making ecological sites less suitable for the species that rely on them or driving changes in species distribution as they move to better suited climates. It could also lead to influxes of invasive species that are better suited to the new climate. Generally, it has been suggested that in the longer term, there is a significant risk of direct impacts on priority habitats. Equally, pressures on watercourses impacting ecological conditions will likely continue without various interventions such as upgrades to key wastewater infrastructure as are noted in the green infrastructure section.

5. Key issues addressed through the Local Plan

5.1 The Regulation 18 consultation identified that there were a number of topics that the Local Plan could implement policy to address which relate to biodiversity and nature conservation. Under each of these topics, there were various options for policy approaches which could be taken, with differing impacts and these were presented in tables to better facilitate comparison between them. The options considered have been reviewed in light of the Regulation 18 feedback (as summarised in the consultation report) and the updates to the Local Plan period, these are reproduced in Appendix A along with the preferred approach taken forward for the Local Plan.

5.2 This section will now discuss the key issues that are being addressed through the Local Plan and how the Local Plan's policies respond to them.

Implementing Biodiversity Net Gain in Oxford

5.3 Policy G4 sets a requirement of 10% net gain consistent with the target required through the Environment Act. This target should be considered as a minimum, however, and the policy encourages delivery which exceeds this wherever possible. There were responses to the Regulation 18 consultation that expressed a desire for the Council to go with a higher target, and officers are aware of other authorities pushing for higher levels.

5.4 It is important to recognise that the 10% net gain requirements of the Environment Act are very specific in how they can be delivered. The requirement is essentially focused on habitat creation (as a proxy for biodiversity) which must be to a certain quantity and quality that conforms with the Statutory Biodiversity Net Gain metric, which is the calculation tool applicants are expected to use to assess and demonstrate how they have met the target. A higher requirement would mean higher amounts of habitat creation but potentially still missing out on delivering enhancement for the full range of species that need to be supported in the city. It could also limit delivery of other important types of green features that have other benefits, such as for people (recreation, food growing). Additionally, for many sites in the city, a higher than 10% target is also likely to result in additional proportions of offsetting payments being secured for delivery in other locations, rather than extra habitat creation on sites themselves.

5.5 For the above reasons, the Local Plan seeks to maintain the requirement at 10% but to reinforce this requirement through other policy requirements that seek to support biodiversity in other ways (as discussed further below), as well as deliver broader greening on development sites (e.g. policy G3).

Further supporting onsite biodiversity including priority species

5.6 Whilst biodiversity net gain is one mechanism for delivering new habitat for biodiversity, it is important that the Local Plan utilises other mechanisms to deliver for nature. This is also important because, as discussed earlier, the DEFRA metric primarily focuses on habitat as a way to support species, whereas there are other important features that support wildlife which are not recognised/incentivised by it. For example, species-based features like bird and bat boxes are not included within the metric but can be just as valuable to more urban wildlife.

5.7 Oxford hosts a range of important species and these have varying environmental needs in terms of space, shelter, and feeding. Our urban context and the development processes that happen throughout the city can negatively impact these species in different ways, like fragmenting landscapes, introducing pollution, removing food sources and spaces to rest. In some cases though, development can positively support these species too, particularly for the wildlife that have come to rely on areas of the urban environment to flourish, e.g. buildings for roosting.

5.8 The planning process is an important mechanism for mitigating negative impacts on existing species where they could arise but also for supporting developers to maximise on opportunities to positively support species in other ways. Whilst policy G6 includes requirements for ensuring that important species on a site are properly identified and

impacts on them mitigated in accordance with the mitigation hierarchy, policy G5 sets out the additional enhancement actions the Council expects to see to support onsite biodiversity regardless of whether 10% habitat net gain has been provided onsite or not.

5.9 The onsite ecological enhancements list has been devised to offer applicants as much flexibility as possible to respond to the specifics of their site. The list includes a number of potential enhancement features which have been chosen for their suitability in supporting known species in Oxford and that are generally not covered by the considerations of the Statutory BNGy metric. Applicants are required to select from a certain number of features depending on the scale of the development from three different 'pots'. Some features (those in first pot) are mandatory and form a minimum provision, whilst the other two pots address needs for shelter/movement and for other supporting landscape features. The intention is for this list to be kept live and added to in the future, so whilst the initial list is included in the appendix to the Local Plan, future versions will be published via the Technical Advice Note along with additional guidance on how they should be implemented in a scheme.

5.10 Alongside the minimum standards for green surface cover on a site as set out in policy G3 (and discussed in the green infrastructure background paper), policy G5 is intended to ensure that overall new development will bring forward a variety of additional spaces for nature. The combination of these policies is considered to be a more bespoke but pragmatic approach response to the constraints of many sites in Oxford that is in keeping with the spirit of going beyond the minimum 10% biodiversity net gain. It also means that, even if the Environment Act's 10% net gain cannot be delivered onsite, the Local Plan can help ensure direct onsite delivery of features to support nature throughout the city.

Oxfordshire's Local Nature Recovery Strategy

5.11 Oxfordshire County Council published the Oxfordshire Local Nature Recovery Strategy (LNRS), which includes the Oxford area, in November 2025. The LNRS is made up of a number of documents, including a Local Habitat Map, Statement of Biodiversity Priorities, Species Priorities List, and a Description of the Strategy Area.

5.12 Of particular spatial relevance to the city as covered by the Local Plan is the Local Habitat Map, which is intended to help a range of stakeholders, including landowners, conservation groups, and local communities to target their efforts where they'll have the most impact, creating a stronger, more connected natural landscape across Oxfordshire. The Habitat Map identifies both:

- existing areas of particular importance to biodiversity – which, in the city, are primarily limited to national and locally designated ecological sites; and
- areas that could become particularly important to biodiversity – which can also be known as 'recovery' areas,

5.13 In complying with their duties under Section 40 of the Natural Environment and Rural Communities Act (as amended by the Environment Act 2021), local authorities need to "have regard" to the relevant Local Nature Recovery Strategy. The Council has engaged in the development of the LNRS and sought to ensure that the various priorities and opportunities identified in it are reflected where possible in the Local Plan, whilst balancing the range of broader sustainability objectives need to be planned for within a highly constrained city.

5.14 In particular:

- any site allocation in Chapter 8 of the plan which includes opportunity areas identified in the LNRS, flags this as part of the policy. The policy identifies that the site includes areas identified in the LNRS and that the LNRS sets out particular measures which would be particularly beneficial for biodiversity. In this way, applicants are encouraged to refer to the LNRS and incorporate BNG which aligns with the strategy.
- for applications coming forward elsewhere in the city, the overarching policy G4 applies and specifically sets out that *opportunities to deliver measures which align with those identified in the LNRS as part of any net gain provision should be prioritised, particularly where a proposal is located in an area identified in the LNRS, unless site constraints would make this unfeasible*.

5.15 It should also be noted that many areas of the LNRS are protected from development through the Local Plan's protection for the green infrastructure network, as set out in Policy G1.

5.16 As the county's website notes, *the main purpose of the LNRS map is to show which locations hold the greatest potential to benefit nature and the wider environment if habitats were created or enhanced in those places. However, this does not mean that landowners and managers would be required to implement any of these meas*ures. The mapping identifies a range of potential measures that could be targeted to different locations based on a range of the best and latest data available including soil data, but these locations and identified measures would need to be sense-checked in-person, to ensure the right habitat is created in the right place. As such, the Local Plan seeks to ensure applicants and decision makers take account of the LNRS whilst also acknowledging that particular site

context may or may not allow the specific actions within the LNRS to be implemented in practice.

Protecting designated sites and other areas of habitat

5.17 The earlier section 3 detailed the extensive network of designated ecological sites in the city which have either international, national or local importance for biodiversity. Policy G6 sets out how the Local Plan will protect the hierarchy of ecological sites for the future of the city. Because the various sites have been designated for a range of qualities, they are susceptible to different sorts of impacts from new development and so the policy acts as an overarching protection from adverse impacts and requires appropriate mitigation which will need to be informed by relevant data sources such as Natural England's SSSI Impact Risk Zones mapping.

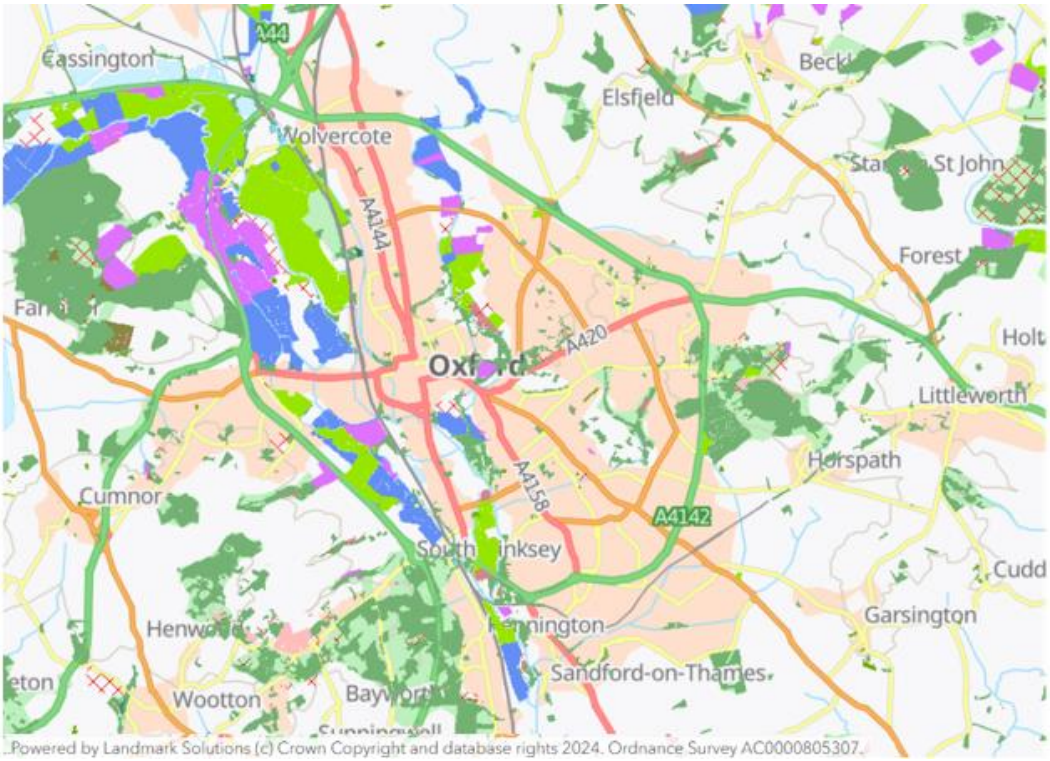
5.18 The considerations for potential adverse effects will differ depending on the site and its particular sensitivities. A number of the sites in the city are particularly susceptible to impacts on hydrological processes including those associated with surface water and groundwater, this includes the Oxford Meadows SAC, as well as some SSSIs including Lye Valley, New Marston Meadows and Iffley Meadows. Policy G6's supporting text therefore explicitly highlights these risks in its supporting text, and the policy itself lists a wider range of potential impacts that could have adverse effects.

5.19 Informed by separate workstreams such as the Habitats Regulations Assessment (HRA), for the Oxford Meadows SAC, and the Source Pathway Receptor Analysis (SPRA), for the SSSIs, relevant allocated sites that have been identified as having the potential to impact upon protected sites also include explicit requirements for mitigation of impacts to ensure these risks are addressed by applicants (with cross reference to policy G6).

5.20 Of course, there is also valuable habitat that exists beyond the boundaries of designated sites. Irreplacable habitat, is highly protected through national policy, and whilst this does not need to be repeated in the Local Plan, Policy G6 also makes clear that the Council will apply the strict tests in the NPPF to applications that could impact this habitat.

5.21 Additionally, there is a significant amount of priority habitat in the city as is highlighted in Figure 5.1. The most significant locations of this habitat are protected through the GI network's policy G1.

Figure 5.1 Mapping of various priority habitats in the city according to DEFRA Magic mapping (accessed January 2026).



5.22 More generally, Policy G6 sets out that proposals with a reasonable likelihood of adversely impacting natural and/or semi-natural habitats, or protected species, on or immediately adjacent to the site, will only be permitted where they have been informed by targeted ecological surveys and impacts addressed in line with the mitigation hierarchy. This would apply wherever a development is located.

Appendix A – Regulation 18 Policy options sets

Policy options set 005d (draft policy G4): Delivering mandatory net gains in biodiversity

There is a national mandatory requirement for providing 10% Biodiversity Net Gain (BNG) as part of planning applications (subject to some exceptions in the legislation). Applicants are incentivised through the DEFRA biodiversity metric (used to calculate net gain) to provide this onsite or in areas identified within an appropriate strategy, but are able to find other offsite options where necessary.

The constrained nature of many sites in the city means that BNG may need to be provided offsite in many instances even if kept to the national minimum target, going higher than this may have impacts in terms of what other features can be provided onsite, or result in more BNG having to go offsite. Where offsite delivery is necessary, the Local Plan can play an important role in steering where this should go. The Local Nature Recovery Strategy identifies opportunity areas where enhancements for biodiversity could be particularly valuable. At the time of writing the options, the LNRS was still emerging, thus options also referenced Conservation Target Areas and previous Nature Recovery Network mapping as a way to help steer net gain to suitable areas. The options considered relate particularly to how offsite delivery should be guided, but also whether higher BNG targets should be incorporated.

Table 1 - Policy options set 005d: Delivering mandatory net gains in biodiversity

Option for policy approach	Potential positive consequences of the approach	Potential negative/neutral consequences of the approach
Option a Set out a hierarchy for how 10% net gain as required through Environment Act should be delivered, particularly where on-site net gain is not possible.	The approach is in line with national expectations for net gain in biodiversity and would allow more flexibility to secure other types of benefits for sites too e.g. other types of onsite features not addressed by the BNG metric (as is the topic of option set G5).	There is an element of repetition of the national BNG legislation here which may not be necessary. The city has limited capacity for taking on additional biodiversity enhancement to the scale and specific standards required through the Environment Act/DEFRA metric. As such, whilst a policy could try to focus any off-site delivery in the local area, geographical constraints may limit its

Guidance would seek to secure off-site delivery in the local neighbourhood in first instance, then within city boundary, then county. Off-site delivery at each of these scales would be guided to the opportunity areas of the forthcoming Local Nature Recovery Strategy in the first instance, (or the Oxfordshire Nature Recovery Network and/or Conservation Target Areas) in advance of the LNRS publication). Payment into the national statutory BNG credit scheme as last resort only.	The national guidance, and the BNG metric, are not as prescriptive about where off-site gains should be delivered, so this approach would provide some local steer about the Council's priorities. This policy would help to ensure that any off-site delivery of net gain would be to the benefit of the local area in first instance before options further afield are considered.	effectiveness and options further afield, even beyond the boundary, may be necessary regardless. Off-site delivery may actualy deliver better outcomes for biodiversity if geared towards landscape-scale nature conservation. From a net gain perspective, it may be less effective forcing constricting delivery to local areas first (particularly onsite).
Option b Require higher than 10% net gain, in excess of the minimum requirements of the Environment Act (but subject to same exemptions as apply to national 10% requirement). Set out hierarchy for where this should be delivered if on-site not possible.	Recognises the importance of supporting biodiversity and acting on biodiversity decline nationally by setting a standard higher than the nationally imposed minimum.	10% net gain on sites as required by Environment Act is likely to be challenging enough in many areas of city. A higher target is not considered realistic/deliverable particularly on many smaller, constrained sites and could result in more off-site mitigation, as opposed to on-site measures. This off-site mitigation is unlikely to all be within the city, but instead via contributions to schemes across the wider county. There are other measures that can support biodiversity which are not recognised by the DEFRA metric and that would not

Guidance would seek to secure off-site delivery in the local neighbourhood in first instance, then within city boundary, then county. Off-site delivery at each of these scales would be guided to the opportunity areas of the forthcoming Local Nature Recovery Strategy in the first instance, (or the Oxfordshire Nature Recovery Network and/or Conservation Target Areas in advance of the LNRS publication). Payment into the national statutory BNG credit scheme as last resort only.		be boosted under this option. Eng. wildlife friendly features like bird boxes, insect hotels, hedgehog highways etc. Additional demands in terms of net gain could impact ability/viability to provide for other needs. The additional cost of this will affect the affordability and therefore selection of other policy approaches that are equally important.
Option c Do not include a policy addressing biodiversity net gain requirements as set out in Environment Act, defer to national guidance/policy.	Environment Act is a landmark piece of legislation which will already result in an increased focus on delivering for biodiversity on all new developments. It may be that this is brought into the NPPF at a national policy level instead.	The national requirements in the Environment Act are not informed by local context. Many sites in the city are constrained in nature without the space to provide for new habitat on site, thus having to rely on off-site delivery elsewhere in city (and, as last resort, beyond city). Could result in limited benefit to local area.

Initial sustainability appraisal screening of options sets

Is there only one option or are there various options we could take? Either option a, b or c (they are alteratives to each other).
High-level screening conclusion? the options are similar to each other from a sustainability perspective
Screened in for detailed appraisal? No

Rationale: The options relate to whether the Local Plan should include policy guidance setting out the Council's preference for how offsite biodiversity net gain should be provided, guiding this to the local area and the opportunities identified in the LNRS, before looking more widely (option a and b) or not to set any local guidance. Option b also weighs up an approach of requiring more than 10% biodiversity net gain.

In terms of sustainability impacts, the options most directly relate to **criterion 10. Biodiversity.** Options a and b are likely to have minor positive impacts for the criteria, though in practice they do not exceed national standards particularly and are principally focussed on articulating how the Council would wish to see BNG implemented in the city. Option a and b would both seek to try to ensure that even if biodiversity net gain cannot be delivered onsite, it would be guided to local areas in the city (particularly those that are also identified as opportunities in the LNRS), potentially reducing the risks that this would otherwise be provided much further afield and to mimimal benefit to local biodiversity. Option b might result in more positive impacts because it would seek to secure higher proportions of BNG than the national 10% target, however, larger targets are less likely to be able to be accommodated on many of Oxford's constrained sites and would also likely reduce the pool of local offsite opportunities that could accommodate this where it is not able to be met onsite (meaning it may go further afield) - thus the benefit is likely to depend on implementation. Option c would still likely result in minor positive impacts, because of the national target of 10% BNG which would still apply to all applicable planning permissions, which is likley to result in positive improvements over time even without the benefit of local policy specifying the Council's preferences for how BNG should be implemented. Overall, the sustainability impacts are unlikely to vary significantly between the options and it is not considered necessary to scope these in for further detailed appraisal.

Delivering mandatory net gains in biodiversity – draft Policy G4

The preferred approach is to take forward **option A.** This approach would maintain BNG requirements in line with national requirements, recognising that onsite delivery is already challenging on many constrained sites, but also that there are various other onsite

enhancements that the Council is seeking to drive forward to improve the environment and provide for biodiversity alongside the 10% habitat net gain as recognised by the DEFRA metric (e.g. draft policy on urban greening G3, draft policy G5 onsite ecological enhancements). This approach would also ensure that where onsite provision cannot be achieved, offsite provision is guided towards areas that most benefit the city and wider county, particularly focusing on the Local Nature Recovery Strategy areas once adopted.

Policy options set 005e (draft policy G5): Protecting and enhancing onsite biodiversity

Whilst the national mandatory Biodiversity Net Gain (BNG) targets for planning applications promote habitat creation to support biodiversity, there are other needs for supporting species that are not recognised as part of the Environment Act's net gain requirements but that can still be highly beneficial. For example, the ways we design the urban environment can either support or hinder movement of species between habitats, meanwhile, certain species such as swifts and bats have adapted to rely on elements of the built environment for shelter where these spaces are designed in the right way. Habitat creation to satisfy BNG may also not always be able to be delivered onsite and so it is important to seek to secure other types of enhancements to support biodiversity too.

The options considered in the below table address the ways that the Local Plan can support biodiversity in other ways beyond BNG. They range from more prescriptive requirements that still retain some flexibility to meet needs of particular sites, to less prescriptive requirements or having no policy at all.

Table 2 - Policy options set 005e: Protecting and enhancing onsite biodiversity

Option for policy approach	Potential positive consequences of the approach	Potential negative/neutral consequences of the approach
Option a Policy with prescriptive requirements to secure biodiversity features on site. • Could require a specific number of enhancements on each site selecting from a pre-defined 'biodiversity points list'	Highlights on-site biodiversity measures as a priority for the Local Plan/Oxford City Council. Policy could be tailored to challenges of delivering biodiversity net gain in a constrained city like Oxford. Would primarily seek to secure some sort of onsite improvement and support/fill	Every site is likely to be different, risk that a prescriptive list/point system could be too blunt a tool, limiting any benefits. On more constrained sites, the scope for biodiversity enhancements will still be challenging.

(e.g. bat box, bird box, wildflowers). • Points could be broken down into several pots/categories. • Potentially different points targets for householder, minors and majors applications. Could potentially be supported by updated Technical Advice Note (TAN).	in gaps left by Environment Act which may result in off-site compensation for on-site impacts. More specific targets (e.g. through point system) would be more practical to monitor and implement. A pre-defined list would provide guidance to applicants about what is most suitable for their site/location.	
Option b Policy that requires biodiversity features/ecological measures but is not prescriptive about what measures are incorporated/or how much/or the standard of those measures. Could potentially be supported by updated TAN.	Highlights on site biodiversity measures as a priority for the Local Plan/Oxford City Council. Allows more flexibility than Option b for developers to work within the constraints of a site.	Less prescriptive policy and lack of quantifiable targets for what measures are expected could result in less effective policy and less influence on what comes forward. Without a minimum target, proposals may be more likely to fail at maximising opportunities on a site.
Option c No bespoke policy on supporting biodiversity on	Constrained city means achievable measures could have limited effect anyway,	The Environment Act requirements likely to have issues with achieving onsite net gain in many parts of city, resulting in off-site contributions, exemptions also, meaning net gain in real

site, instead, via complimentary policies (e.g. sustainable design and construction), include requirements to incorporate general ecological enhancements.	protection of established ecological sites nearby may be more effective overall.	terms could be limited. A specific policy would highlight this as a priority for the City Council, not including one could weaken this position. General encouragement of ecological enhancements means effectiveness of policy is harder to quantify and monitor.
Option d Do not include a policy for protecting and enhancing on site biodiversity, defer to national policy/standards.	Environment Act is a landmark piece of legislation which will already result in an increased focus on delivering for biodiversity on all new developments.	Environment Act 10% net gain is focused primarily on habitat creation which equates to habitat units and will have limited benefits for addressing wider needs of many species present in Oxford. Many sites in the city are constrained in nature without the space to provide for new habitat on site, thus having to rely on offsite delivery elsewhere in city (and, as last resort, beyond the city). Could result in limited benefit to local area and lead to ecological impoverishment.

Initial sustainability appraisal screening of options sets
Is there only one option or are there various options we could take? Either option a, b, c or d **High-level screening conclusion?** the options are unlikely to have significant sustainability impacts **Screened in for detailed appraisal?** No **Rationale:** The options presented set out alternative approaches for the Local Plan to address provision for onsite biodiversity beyond what is expected as part of the Environment Act 10% net gain requirements and could be treated as standalone alternatives to each other. Options a, b and c set out different ways that additional biodiversity enhancements could be secured through policy. Option d would mean no local policy requirements. In terms of sustainability impacts, the options all most directly address SA **criterion 10. Biodiversity**, whilst some of the enhancements that might be secured under the options could support **criterion 7. green infrastructure**, this would depend

on implementation (some biodiversity enhancements could instead take the form of other features like bird boxes, swift bricks, etc), so it is difficult to assess impacts. For criterion 10. Options a, b and c are all expected to have some varying level of minor positive impact, with more prescriptive requirements of options a and b likely to have a slightly more positive impact than option c, which has the potential to be a less effective approach. Option d is likely to have a neutral or minor negative impact for criterion 10. Whilst the net gain requirements of the Environment Act are likely to ensure key habitat features are identified on a site and a net gain of 10% biodiversity secured, this does not have to be onsite and could be provided for off-site and potentially outside of the city. Equally, the BNG process is focussed on habitat and may not fully address impacts on particular species onsite or in the surrounding area, meaning there is potential for new development to have harmful impacts if these are not mitigated through other mechanisms. Under criterion 7. Whilst this is dependent on implementation, options a, b and c could result in minor positive impacts where enhancements are in the form of greening and habitat creation measures, meanwhile option d would likely be neutral. Other than option d, the options for this policy are about securing additional benefit for biodiversity from development, and the impacts for sustainability are similar and not considered significant enough, regardless of option, to warrant detailed appraisal.

Protecting and enhancing onsite biodiversity – draft Policy G5

The preferred option for the draft policy is **option A** which would set prescriptive requirements for types of onsite ecological enhancements that are expected of development. This approach will help to provide clarity for applicants as to expectations and allow the Council to set out a list of features that would be most appropriate to the city's context and the needs of particular local species. Flexibility can be introduced to accommodate varying context of development sites by allowing applicants to pick a number of features from this list. The policy will complement the 10% BNG requirements and help to ensure that even where BNG cannot be delivered onsite, some provision for biodiversity is incorporated. There may be opportunities to tailor the list of features so that they complement the types of enhancements that the Local Nature Recovery Strategy identifies as opportunities within the city.

Policy options set 005f (draft policy G6): Protecting Oxford's ecological network

There is a range of sensitive species and habitats across the city which need to be considered in the development process. Onsite, there may be features already present that need to be investigated and appropriately addressed through the design process in order to mitigate impacts. Additionally, there are a range of designated sites across the city of varying national/local significance, and whilst the nationally

important sites benefit from high levels of protection through national policy, the locally valuable sites rely on Local Plan policies for their protection. The sites have varying characteristics and can be sensitive to different types of impacts from developments which applicants would need to consider.

The options set below includes options for addressing onsite biodiversity through the development process, as well as options for how to protect the wider ecological network across the city. These national and local designated sites would also be identified within the green infrastructure network (the subject of draft policy G1), and as such these options would set out additional considerations for development that could impact these particular sites in relation to their special biodiversity functions.

Table 3 - Policy options set 005f: Protecting Oxford's ecological network

Option for policy approach	**Potential positive consequences of the approach**	**Potential negative/neutral consequences of the approach**
Option a Include policy requirements that seek to ensure applicants identify/assess/protect any existing habitat of value on a site.	There are often habitat/features/species that exist outside of designated sites in the city which are valuable and need to be protected where possible. Ensures developers assess potential impacts on legally protected species.	This would involve additional checks and assessment for applicants before commencing work.
Option b Include a policy which protects the city's network of national and local designated sites from development. Define hierarchy within the network, with level of protection based upon importance/value of	Ensures that the city's most important areas of habitat and species are protected from the direct and indirect impacts of inappropriate development in future. Also ensures that the level of protection is proportionate to the level of ecological interest.	Protecting designated habitats is important for supporting biodiversity in the city, however, there are likely to be other smaller/undesignated habitats which provide an important supporting/connecting role which will need to be safeguarded where possible also. Space in the city is under demand to deliver upon a variety of objectives, including providing for affordable/quality housing and jobs – these needs must be balanced with the need for

species/habitat they have been designated for such as: • International designations (SAC) • National designations (SSSIs) • Local sites like Local Wildlife Sites and Oxford City Wildlife sites. • Priority habitat. Reiterate national guidance for how to deal with irreplaceable habitats.	Protection of SACs, SSSIs and irreplaceable habitats set out in legislation/NPPF. No specific protection for locally designated sites, although the NPPF requires local plans to identify, map and safeguard such sites. Also acknowledges that there is differentiation in local designations where Oxford has multiple tiers of locally designated sites; notably, more stringent criteria area applied in designating local wildlife sites (LWS) versus Oxford City Wildlife Sites (OCWS). Also ensures protection of sites/habitats that are of notable ecological value but not previously identified through selection of designated sites.	protecting biodiversity, but will necessarily be limited as space is secured for other purposes like this.
Option c Set out that proposals will need to consider a range of	Recognises that there are different characteristics/qualities for	Whilst the approach would flag the range of considerations that applicants may need to consider and address in an application, the level of information needed to assess and

potential impacts depending on the context of application and proximity to any protected site(s), particularly, but not limited to: • Loss of protected land • Recreational impacts • Changes to the hydrological regime (groundwater, primarily), • Impacts on water quality • Impacts from air pollution.	which sites are designated and these are at risk from different impact mechanisms arising from development. For example, some sites in the city, such as the SAC and Lye Valley SSSI are particularly at risk from changes to hydrological regime (e.g. changes to groundwater flows and pollution impacting water quality). Others are at risk from other pressures. Provides a hook in policy from which to develop additional helpful guidance, potentially tailored to particular locations or types of sites (e.g. Technical Advice Notes) that can provide further detail for area specific requirements/considerations -- e.g. where applications impact a particular designated site.	justify no impact will vary depending on the level of protection on a site and type of application (e.g. likely a higher burden of information needed where proposal impacts a site protected through national legislation). Would be challenging to provide detailed steer on this at Local Plan policy level, and the level of assessment would need to be determined by the applicant through reference to the appropriate information.
Option d Include separate policies focussed on specific sensitive areas in the city, e.g. in	Particular considerations tailored to the specific risks to these areas could be set out	There is a network of ecological sites in the city and varying levels of national/local significance and

proximity to the Lye Valley, or the SAC, with bespoke requirements focussed on particular risks (e.g. changes to groundwater flows).	clearly for development coming forward nearby.	Focussing policy on particular risks to the areas might reduce the ability to look at wider impacts from development as a whole. There may be other adverse effects that particular developments may need to consider. There are other ways to provide more specific guidance on particular locations, e.g. Technical Advice Notes, which can be kept updated more regularly throughout the Local Plan's lifetime.
Option e Do not include a policy protecting biodiversity including ecological sites. Instead, defer to national policy/standards.	There is already legislation and national policy governing the upper levels of the hierarchy so may not be necessary to repeat that locally.	Particularly for local sites of ecological importance, the Local Plan is the key means through which these designations are protected from inappropriate development.

Initial sustainability appraisal screening of options sets
Is there only one option or are there various options we could take? Various combinations e.g. option a, a+b, a+b+c, a+ c, d **High-level screening conclusion?** the options are unlikely to have significant sustainability impacts **Screened in for detailed appraisal?** No **Rationale:** If not taking forward option e (no local policy), it is likely a combination of options that include option a would be taken forward. Option a sets out requirements for identifying what is already on a site and responding accordingly. The additional options presented are either to include a policy protecting a hierarchy of ecological sites, including those of national/internation importance and those of local importance (option b), or to have more specific policies focused on particular areas (option d). Option c isn't an alternative, but rather an additional element that could be incorporated into option

b which would set out additional guidance/expectations for proposals to consider a range of impacts that could cause harm to these sites.

In sustainability impacts arising from the options, these would most directly relate to SA **criterion 10. Biodiversity.** Whilst option a is likely to have a neutral impact, as it is about identifying the biodiversity features present on a site and mitigating any impacts from development, Options b and c would have minor positives for this criterion by helping to ensure that existing biodiversity onsite is identified/protected and that the most valuable sites in the city for ecology would be protected from harmful development, particularly the locally important sites that do not benefit from the same levels of protection in national legislation as the SAC and SSSIs (option c would just provide further detail about implementation in relation to dealing with adverse impacts). Option d would be similar, but more focussed to particular locations and would thus depend on implementation (which locations). Option e is likely to have neutral impacts in relation to the national sites (because they are already strongly protected at national level), however, there would potentially be minor negative impacts in relation to the local sites not protected in the same way through national policy.

Overall, the sustainability impacts of the options are principally focussed on mitigating impacts from development and protecting what is already there, so they are unlikely to differ significantly enough from each other to warrant detailed sustainability appraisal.

Protecting Oxford's ecological network – draft Policy G6

The preferred approach for the Local Plan 2045 draft policy is to take forward a combination of **options A, B** and **C**. Option **A** will help to ensure that development appropriately investigates and addresses any existing biodiversity on site in accordance with the mitigation hierarchy (e.g. seeking to avoid impacts before thinking about mitigating). Meanwhile options **B** and **C** mean that the Local Plan can identify and protect a the network of designated sites in the city, including locally important sites and set out the various considerations that applicants may need to take into account in order to avoid adverse effects. This should mean that applicants fully consider all the relevant information and potential impacts from their development, taking into account the varying characteristics of different sites around the city. The expectation would be that, where appropriate, additional guidance would be provided through technical advice notes which expand on the policy and help applicants to interpret its requirements, e.g. setting out how the Council expects them to avoid adverse effects in relation to particularly sensitive sites.