

# Natural Cambridgeshire

## Developing with Nature Toolkit











Wild play © www.williamsphotography.com Left: Alconbury © Urban & Civic

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**The Natural Cambridgeshire Local Nature Partnership (LNP) wishes to enhance the natural environment of Cambridgeshire and Peterborough and to see all developments contribute to our policy objective of achieving a net gain in biodiversity through new development.**

Greater Cambridgeshire is one of the fastest growing areas within England, with plans for significant additional development and major infrastructure to provide tens of thousands of new homes and significant new employment opportunities over the coming decades. The National Planning Policy Framework (NPPF) promotes sustainable development, which requires moving from net losses in biodiversity to net gains and for development to enhance the natural environment, including natural capital or ecosystem services.

Our natural environment underpins our economy and our wellbeing by providing wide-ranging benefits such as clean water and air, food, timber, carbon capture, flood protection and recreation. However, the natural environment is increasingly constrained due to the ongoing impacts of climate change. Natural vegetation, ponds and lakes provide natural cooling in urban environments, trees can help reduce localised air pollution, and high quality greenspaces provide access to nature and have been shown to have multiple benefits for physical and mental health.

New developments which adhere to sound sustainability principles ensure the protection and enhancement of this natural capital by creating high quality multifunctional habitats that support common, threatened and / or declining species. The provision of on-site and wider landscape-scale high quality natural environments also enhances the new development and attracts additional investments. Conversely, new developments neglecting this approach, diminishes both the quantity and quality of the natural environment, its biodiversity and the essential benefits and services these provide.









Above and left: Alconbury 2016 © Urban & Civic

This Toolkit has been produced to help developers and infrastructure providers to demonstrate their commitment to achieving a net biodiversity gain to the public, local authorities or shareholders. The Toolkit comprises a simple list of “10 Things to do for Nature”. The Toolkit is primarily intended for major developments requiring an Environmental Impact Assessment (*new settlements, major urban extensions, housing developments above 100 dwellings, commercial developments greater than 1 Ha or 1,000m<sup>2</sup> floor space, mixed use developments greater than 2 Ha, or major transport infrastructure projects*). It should be used at the very outset of planning new developments, and ideally at the time of selecting sites to acquire for development.

The LNP expects the *Developing with Nature Toolkit* to be formally adopted in relevant planning and transport policy documents, as standard guidance with respect to whether development has achieved a net gain for biodiversity.

**The *Developing with Nature Toolkit* does not replace planning policies seeking to protect the most important wildlife sites, legal requirements related to protected sites and species, or replace the established mitigation hierarchy.** However, the Toolkit does provide an approach which if followed enables developers and infrastructure providers to demonstrate their performance with respect to achieving the policy objective of enhancing nature.

The Toolkit comprises a headline list of “10 Things to do for Nature”, a scoring matrix, guidance notes with links to background information, including a summary map of Greater Cambridgeshire strategic green infrastructure and ecological network priorities, and links to reference materials and publications..

The *Developing with Nature Toolkit* provides the basis for a proposed “*LNP Developing with Nature charter mark*”. To ensure that the Toolkit becomes the adopted standard in Greater Cambridgeshire, an assessment process will be developed by the LNP in partnership with the LEP and Local Authorities. This process will involve evaluating schemes at the design stage, construction and post-construction stages prior to awarding the charter mark. On-going compliance will also be monitored, as successful schemes will require resources for on-going management and monitoring of outcomes to demonstrate a net gain in biodiversity.









Cambourne © Wildlife Trust BCN

# 10 Things to do for Nature

## Scoring Guidance Notes

### SITE SELECTION

- 1** Demonstrably avoid impacts on irreplaceable biodiversity, or locating development where it would cause significant damage to protected sites, priority habitats or the favourable conservation status of priority species.

At the earliest stages of identifying land for development, locations that would result in adverse impacts on a statutory protected site (e.g. SSSI), non-statutory site (e.g. County Wildlife Site), or other areas of priority habitat, should be ruled out, unless potential impacts can be avoided. This will require the use of desk based searches, supplemented by specialist advice and if the situation is uncertain, appointment of a suitably qualified ecological consultant (e.g. member of CIEEM) and consultation with local natural environment experts.

If avoidance of all impacts on priority sites or habitats isn't possible, the mitigation hierarchy must be followed. The development must be designed to avoid as many of the potential impacts as possible, with mitigation and / or compensation for any remaining adverse impacts to ensure no residual impacts. Schemes that only rely on the latter (mitigation and compensation) tiers of the mitigation hierarchy will score less highly.

**Maximum score: 20**

### STRATEGIC PLANNING AND DESIGN OF DEVELOPMENTS

- 2** Engage local nature conservation organisations and other local experts throughout the strategic planning and detailed planning stages. This will help identify opportunities for enhancement of the natural environment, those habitats and species that are locally important, and may also help to reduce conflicts through the planning process.

Engagement with local specialists including NGOs, local experts or statutory agencies at the early stages of planning a development can improve outcomes due to their more detailed knowledge of local risks and opportunities. This can result in better designed schemes that reflect the local environment with greater benefits for the natural environment and more chance of meeting the "LNP Developing with Nature charter mark". Early engagement can also help to increase understanding and support, not only with stakeholders but with communities affected directly or indirectly. This helps to reduce the level of conflicts, especially during public consultation, ultimately saving time and money during the planning process.

**Maximum score: 5**

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LNP board at Needingworth © Phil Clark

### **3 Appoint professional ecological expertise at the start of the concept design process. They can also help facilitate engagement with local experts (see point 2).**

Appointment of an ecological consultant should be undertaken as early in the design process as possible. Professional ecological expertise within the design team will not only help ensure legal compliance with for example protected species requirements, but also help to ensure that biodiversity enhancements can be integrated into the detailed design of the development.

**Maximum score: 5**

### **4 Understand the context of the development site within the wider landscape and ecological networks so that it contributes to strategic green infrastructure and enhancement of the natural environment beyond its boundaries, including the network of protected sites, and priority and locally important habitats and species.**

New development cannot be seen in isolation from the wider landscape in which it sits. Throughout Cambridgeshire some strategic green infrastructure and biodiversity priorities are best met through habitat enhancement, restoration and creation within existing ecological networks ([see summary green infrastructure and ecological network map](#)). New developments and related infrastructure could contribute to these strategic priorities, particularly if close to the development, either through supporting habitat creation and enhancement within nearby strategic sites or by seeking to provide links and connectivity between the development and the wider ecological network. Action under this category should be above and beyond and complementary to any off-site measures required as mitigation, or compensation through the mitigation hierarchy.

Green infrastructure can also provide wider benefits to the natural environment and society. These natural capital benefits include flood risk management, climate change mitigation and adaptation, and health and well-being.

For some developments, providing off-site biodiversity enhancement may be the most effective use of resources. Rather than trying to manage small isolated habitats or populations of species within the development footprint, it might be better to contribute to linkage and connectivity within a wider ecological network. There are also species for which action must take place in the wider landscape such as farmland bird species.

Many major developments will have an impact on declining farmland birds, through loss of farmland, but rarely are effective mitigation or compensation measures put in place. Working with landowners to enhance the agricultural landscape beyond the development can help to provide this as well as enhance the setting of a development.

**Maximum score: 20**





Aerial view of Cambourne © Wildlife Trust BCN

## 5 Plan green and hard infrastructure at the same time and retain existing natural features in situ. Provide sufficient quantity and quality of green infrastructure to deliver quality of place, provide accessible natural greenspace, enhance natural capital, and achieve a net gain in biodiversity.

Existing natural features should be retained within the development as the basis for a multi-functional network of green infrastructure, which should seek to link these together through the development and to natural features beyond the development boundary. Green infrastructure should be designed either before or at the same time as the built development and hard infrastructure. This should be done in the initial design stages and before the formal planning process.

Major developments should seek to allocate sufficient area of land for green infrastructure within their land budget to ensure that biodiversity protection and enhancement can be delivered. Green infrastructure can be multi-functional whereby functions such as wildlife habitats, SUDS infrastructure, natural greenspace and flood protection can be combined. However, it will be challenging to achieve effective biodiversity enhancement with less than 40% of a major development allocated to green infrastructure and 30% as natural greenspace (though space for SUDS provision is often likely to be included within these areas). Ultimately there are no absolute thresholds regarding area of green infrastructure provision within a development, as the quality of design and layout of green infrastructure including natural greenspace can to some extent make up for lack of area. However, with too small an area there is likely to be a conflict between recreational pressures, SUDS drainage function and conservation of biodiversity, which will limit the scope to achieve a net gain in biodiversity, unless there are also off-site biodiversity enhancements (see point 4). Natural England's Accessible Natural Greenspace Standards (ANGSt) provide guidance as to suitable levels of provision. The standard of providing all residents with at least 2 hectares of natural greenspace within 300 metres of their homes is supported by strong research evidence.

Green infrastructure should be planned and designed to meet the requirements of any protected species on the site. Developments should refer to Natural England's standing advice on protected species at the outset of the planning process.

Each development is different, so the balance between on-site and off-site provision of green infrastructure will inevitably vary, as will the balance between different types of green infrastructure. It is recognised that flexibility is often required and that in some developments the focus may be on new natural greenspaces and biodiversity, while in others it may be on more formal open spaces, with biodiversity provision off-site.

**Maximum score: 20**



# 10 Things to do for Nature

## Scoring Matrix

		Maximum Score	Potential Score	Awarded Score
<b>1</b>	<b>Demonstrably avoid impacts on irreplaceable biodiversity, or locating development where it would cause significant damage to protected sites, priority habitats or the favourable conservation status of priority species</b>	<b>20</b>		
<b>1a</b>	Impacts on protected sites or priority habitats and species avoided	20	20	
<b>1a</b>	Residual impacts on protected sites or priority habitats and species are fully mitigated		10	
<b>1a</b>	Residual impacts on protected sites or priority habitats and species cannot be fully mitigated but are fully compensated.		5	
<b>2</b>	<b>Engage local nature conservation organisations and other local experts throughout the development process</b>	<b>5</b>		
	Undertake engagement with local natural history and conservation organisations throughout the strategic and detailed planning stages.	5	5	
<b>3</b>	<b>Appoint professional ecological expertise at the start of the concept design stage</b>	<b>5</b>		
	Appoint professional expertise at the commencement of the design stage.	5	5	
<b>4</b>	<b>Understand the context of the development site within the wider landscape and ecological networks, so that it contributes to strategic green infrastructure and enhancement of habitat networks beyond its boundaries</b>	<b>20</b>		
	Understand the landscape context of the development site and contribute to the provision of strategic green infrastructure and enhancement of the network of protected sites and priority and locally important habitats.	20	20	
<b>5</b>	<b>Plan green and hard infrastructure at the same time and retain existing natural features in situ. Provide sufficient quantity and quality of green infrastructure to deliver quality of place, provide accessible natural greenspace, enhance natural capital and deliver a net gain in biodiversity</b>	<b>20</b>		
<b>5a</b>	Plan green and hard infrastructure at the same time and retain existing habitat features in situ.	5	5	
<b>5b</b>	Provide at least 40% green infrastructure with 30% semi-natural habitats and / or meet the Natural England Accessible Natural Greenspace standard of every resident having access to a semi-natural greenspace of at least 2 Ha within 300 metres of their home	15	15	
<b>5b</b>	If above targets not met, demonstrate how sufficient area of green infrastructure has been provided to deliver quality of place, provide accessible natural greenspaces and a net gain in biodiversity.		5	
<b>6</b>	<b>Provide Sustainable Urban Drainage systems with source control measures and integral wildlife features. Ensure buildings and landscape designs are highly water efficient with use of grey water systems integral. Contribute to local WFD objectives for nearby watercourses</b>	<b>25</b>		
<b>6a</b>	Complete SUDS chains with integral wildlife features and source control measures; water efficient buildings with grey water systems	20	20	
<b>6a</b>	SUDS with integral wildlife features.		5	
<b>6b</b>	Evidence provided showing how WFD objectives for nearby water courses have been supported.	5	5	

### Notes:

Scoring to be filled out by developer, and subject to independent assessment by LNP

Scores are all or nothing as specified in the potential score column

Some combinations (for example 7a & 7b) are additional, while others are either / or choices (for example 1a, 1a or 1a)

Score 125+ achieves LNP charter mark excellence rating (potential submission for LNP award)

Score 110+ achieves LNP charter mark



**7 At the start of the planning process, undertake an audit of green infrastructure including biodiversity. Identify those habitats and species / groups of species for which positive conservation action will be undertaken (above and beyond that required for mitigation)**

10

**7a** Undertake an audit of biodiversity demonstrating losses and gains in priority habitats and locally significant species.

5

5

**7b** Identify those habitats and species / groups of species for which positive conservation will be undertaken through the development (above and beyond any legal, statutory or mitigation requirements).

5

5

**8 Demonstrate a clear rationale for landscape design & species selection, including selection of locally native tree and shrub species. Avoid the use of invasive non-native species in landscaping schemes**

5

Demonstrate how landscape character and biodiversity best practice has been followed in the design of the development and selection of tree, shrub and other species within the urban environment and natural greenspaces. Avoid the use of invasive non-native species in landscaping schemes.

5

5

**9 Provide the full range of breeding sites, shelter and all year round food resources within the development and its immediate vicinity for those species or groups of species identified for positive conservation action in the biodiversity audit**

50

Choose from the following list of species (and any other species / groups identified from the biodiversity audit). The selections should be justified as appropriate to the context and location of the development including opportunities for enhancement of biodiversity:

Garden birds including house sparrows and swifts;

Urban mammals including bats and hedgehogs;

Freshwater species including amphibians and water voles;

Specialist invertebrates (local Greater Cambridgeshire priorities include bees, other pollinating and nectar feeding species, species of open mosaic habitats, and elm and willow dependent species);

Farmland birds;

Arable plants;

**9a** Defined and justified conservation action covering the full ecological requirements of three or more groups / species

30

30

or

**9a** Defined and justified conservation action covering the full ecological requirements of two groups / species

10

or

**9a** Defined and justified conservation action covering the full ecological requirements of one group / species.

5

**9b** Incorporation of significant wildlife features into buildings and the urban landscape (above and beyond those for the species chosen in 9a). Measures could include green roofs, green walls or other innovative approaches.

10

10

**9c** Incorporation of significant pollination and nectar-rich habitats and winter seed food within formal greenspaces and amenity grasslands, whether parks or verges, above and beyond what has been provided through options 9a and 9b.

10

10

**10 Demonstrate continuity of management of important natural features from site acquisition, during construction and throughout the lifetime of the development. Long-term arrangements for management of green infrastructure should be determined early in the lifetime of a development. Green infrastructure should be provided in an early phase of a development**

15

**10a** Green infrastructure provided in an early phase of a development. Management and monitoring arrangements for important natural features and new green infrastructure in place throughout the lifetime of the development from site acquisition, during construction and post construction;

15

15

or

**10a** Management and monitoring arrangements in place to cover long-term maintenance.

5

TOTAL SCORE

175





House sparrow © State of nature/Natural Cambridgeshire

## **6 Provide Sustainable Urban Drainage systems with source control measures and integral wildlife features. Ensure buildings and landscape designs are highly water efficient with use of grey water systems integral. Contribute to Water Framework Directive objectives for nearby watercourses.**

SUDS provide opportunities to manage and clean runoff before it enters the aquatic environment beyond the development. Green roofs, green walls, rain gardens and bio-retention beds and filter strips are the most important elements to manage flows and clean water. Even where full SUDS systems with source control measures are not built, there are opportunities with hybrid systems to include wetland features within the swales, attenuation basins and ponds at the end of a SUDS chain. These can be designed with wildlife in mind to provide a range of aquatic habitats for wildlife including open water, marginal vegetation, temporary wetlands providing breeding habitats for amphibians, and habitats for fish in larger water bodies. It is recognised that SUDS are not appropriate to all soil types, but other water attenuation features can be designed with wildlife in mind.

Cambridgeshire is one of the driest parts of the UK and many rivers and wetlands are suffering or are prone to water stress. New buildings should be built to the highest water efficiency standards with grey water systems an integral part of a development. Landscaping schemes should be designed with trees, shrubs and other plants chosen to minimise watering beyond that which can be provided through grey water systems.

Developments can also contribute to the enhancement of water courses through or linked to the development in line with Water Framework Directive (WFD) and biodiversity priorities, providing further off-site benefits (see point 4).

**Maximum score: 25**

## **DETAILED PLANNING AND DESIGN OF DEVELOPMENTS**

### **7 At the start of the planning process, undertake an audit of green infrastructure including biodiversity. Quantify changes in biodiversity, including areas and quality of habitats lost, affected, enhanced or created, and impacts on populations and distribution of priority and locally important species. Identify those habitats and species / groups of species for which positive conservation action will be undertaken, above and beyond what is required for mitigation.**

Site surveys and data searches (including from CPERC the local records centre) should be used to identify what is important about the development site and wider area and inform the design of green infrastructure. This information will also inform which species, groups of species and habitats will be promoted within the development to help achieve a net gain in biodiversity (i.e. is beyond any action required to meet legal requirements). The Biodiversity Partnership has produced habitat action plans for priority and other locally important habitats, and lists of priority species and other locally important species found in Cambridgeshire [www.cpbiodiversity.org.uk/downloads](http://www.cpbiodiversity.org.uk/downloads).





Tree moving © Urban & Civic

Applications for major developments should present a clear audit of losses and gains to habitats, particularly priority habitats, and impacts on the populations and distribution of priority and locally important species. This can be included within an Environmental Statement or other ecological documents and should be summarised in Design and Access Statements. An audit of biodiversity losses and gains is a requirement of the Cambridgeshire County Council and Peterborough City Council biodiversity checklists which are required to validate planning applications and is essential if a net gain for biodiversity is to be demonstrated.

**Maximum score: 10**

## 8 Demonstrate a clear rationale for landscape design including how landscape character has been followed, the rationale for choice of tree, shrub and other species in the urban environment and natural greenspaces, and how locally native species will be used. Avoid the use of invasive non-native species in schemes.

The Cambridgeshire Green Infrastructure Strategy (2011) figure 9.2 shows the location of seven landscape character areas covering the county, while the Peterborough Biodiversity and Green Infrastructure Strategy (2017) does likewise for Peterborough. The Cambridgeshire Landscape Guidelines (1991) provide a good basis for selecting tree and shrub species appropriate to the different landscape character areas within the County, although the impacts of climate change and tree diseases now makes the selection of species more complex.

The Forestry Commission provides a range of publications on the selection of species and planting and woodland creation guides [www.forestry.gov.uk](http://www.forestry.gov.uk), including the ecological site classification tool, which includes climate change scenarios and can be used to help select species. Use of locally native species, particularly within natural greenspaces, provides habitats for associated biodiversity including invertebrates, lichens and fungi and if available locally native species of Cambridgeshire or East Anglian provenance are likely to be better adapted to local conditions and better for associated biodiversity. However, climate change may require widening the range of plant genetics by using provenances from warmer climates. The impacts of tree diseases may require the inclusion of a wider range of species to ensure trees and woodlands achieve their landscape and structural objectives. Current best practice should be followed.

The value of the “urban forest” is increasingly recognised as important for the multiple benefits it provides and not just for biodiversity. Provision of significant tree cover within new developments is also important because of the value trees bring in countering the urban heat island effect and reducing air pollution at street level. A decision tool for urban tree species *Right Trees for a Changing Climate* <http://www.righttrees4cc.org.uk/> can help with decision making. The Trees Design and Action Group (TDAG) ([www.tdag.org.uk](http://www.tdag.org.uk)) has produced a publication “*Trees in the Townscape – A Guide for Decision Makers*”, which sets out 12 principles under the headings of plan, design, plant/protect, and manage/monitor, to effectively manage individual trees within the urban forest. A separate companion publication “*Trees in Hard Landscapes – A Guide for Delivery*” provides a technical guide to planting trees within urban environments such as streets, car parks and town squares.

**Maximum score: 5**

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Swift nest box © Ben Andrew rspb-images.com

- 9 Provide the full range of breeding sites, shelter and all year round food resources within the development and its immediate vicinity, including outside the development boundary, for those species or groups of species identified for positive conservation action at the audit stage. Specific measures will need to be identified such as, provision of semi-natural habitats as part of the green infrastructure, incorporation of pollen and nectar-rich habitats and winter seed sources within formal greenspaces or urban landscaping schemes, and / or incorporation of wildlife features into buildings and the urban streetscape.**

All species of fauna require breeding and sheltering sites as well as food resources all year round. Nesting and sheltering sites can be provided through landscaping schemes (trees, shrubs, hedges, grasslands and ponds). However, provision of nest sites, including bird and bat boxes are of little use and unlikely to be occupied if there are insufficient all year round food resources provided through the inclusion of insect, nectar, pollen and seed rich habitats throughout the development or in the immediate vicinity.

Major developments should select the most appropriate groups of fauna or priority species to make provision for within their locality, based on the initial biodiversity audit and data searches undertaken in the initial stages of planning the development (see point 7). It is important to take action for species that will benefit from and use the chosen measures. The selection of species should therefore be justified as appropriate to the context and location of the development and the opportunities for enhancement of biodiversity.

Flower-rich grasslands can be sown on nutrient-poor soils on verges and banks instead of amenity grasses. Pollinator strips or flowering lawns can be sown around the edges of playing fields and other formal open spaces. Landscaping within gardens or communal areas should include pollen and nectar-rich plants, which may be native or non-native (as long as they are non-invasive). Species that provide winter seed sources can be included in landscaping schemes throughout the development and its open spaces. Provision can be made for specialist invertebrate species that are local Cambridgeshire priorities such as bees, other nectar and pollinating species, species of open mosaic habitats, and elm and willow dependent species.

Nesting sites can be provided in the form of integral bricks and access tiles / spaces in roofs for birds and bats. External nest boxes should be positioned in suitable locations, including on the correct face of the building, at the correct height, unshaded if required, unlit and with unobstructed entrances. It is important that gardens are connected to enable hedgehogs, other small mammals, amphibians and reptiles to move around a development unimpeded. A proportion of gardens can be designed in blocks to increase the area of connected green space in locations that complement the natural greenspaces. Large gardens will offer more scope for biodiversity than small gardens. Raised garden panels, hedgehog gates and lowered kerbs on amphibian migration routes are options. A range of other features can be incorporated to provide food and shelter such as green roofs, green walls or bug “hotels”. Hedgerows instead of boundary walls can provide nesting opportunities as well as feeding sites in summer and winter if they include a good range of berry producing species and are allowed to flower and fruit. Orchard trees can be included in a proportion of gardens.





Hampton, Peterborough © Natural Cambridgeshire

Providing off-site biodiversity enhancement may be the most effective use of resources to ensure breeding sites, shelter and all year round food resources are provided for species such as farmland birds, or to cater for rare arable plants, where these priority species are relevant to the development.

**Maximum score: 50**

## IMPLEMENTATION AND MANAGEMENT

- 10** Demonstrate continuity of management of important natural features from site acquisition, during construction and throughout the lifetime of the development. Long-term arrangements for management of green infrastructure should be determined early in the lifetime of a development. Green infrastructure should be provided in an early phase of a development. Temporary habitats such as nectar and pollen-rich plants can be used if elements of green infrastructure are delayed.

Retained natural features will often require management to maintain their biodiversity value. Management arrangements should be put in place as soon as land is acquired for development and continued throughout the period of development, informed by a landscape and ecological management plan. A significant delay between acquiring land for development and bringing forward the development can result in loss or degradation of important features, and be more costly to provide from new than to maintain.

Likewise newly created features will usually require management, whether woodland and shrub planting, individual trees or wildflower areas. SUDS need to be designed so that management regimes maintain both their functionality and wildlife features. A landscape and ecological management plan should be prepared early on in the process to guide the creation and management of natural features and to maximise biodiversity benefits.

Green infrastructure and landscaping should be created early in the development process, to ensure natural greenspaces are attractive for when the first residents move in. This may also have benefits to the developer in sales revenues. If there are delays in provision of some aspects of green infrastructure, temporary habitats such as nectar and pollen rich plots could be provided, though with the clear understanding that they are temporary and will be built on later.

Long-term management and monitoring arrangements for the green infrastructure should be decided early in the lifetime of the development and the managing body (whether private, non-governmental or local government) involved in the planning and design of the natural greenspaces. Housing Associations and householders can be provided with information on the wildlife features (such as raised fence panels, bird boxes and feeders or bat bricks, or nectar and pollen planting) on their properties and how to maintain them. New residents can be provided with opportunities to become involved in the management of communal spaces.

**Maximum score: 15**



## Sources of useful information

## Publications

*Biodiversity Net Gain: good practice principles for development.* CIEEM, CIRIA, IEMA (2016)

*Planning for a healthy environment – good practical guidance for green infrastructure and biodiversity.*  
Town and Country Planning Association & The Wildlife Trusts (2012)

Cambridgeshire Green Infrastructure Strategy (2011)  
[www.cambridgeshire.gov.uk/info/20012/arts\\_green\\_spaces\\_and\\_activities/344/protecting\\_and\\_providing\\_green\\_space](http://www.cambridgeshire.gov.uk/info/20012/arts_green_spaces_and_activities/344/protecting_and_providing_green_space)

*Peterborough's Green Grid Strategy (2007)*  
[www.peterborough.gov.uk/council/planning-and-development/conservation-trees-and-hedges/natural-networks-partnership/#NaturalEnv\\_greeninfrastructure](http://www.peterborough.gov.uk/council/planning-and-development/conservation-trees-and-hedges/natural-networks-partnership/#NaturalEnv_greeninfrastructure)

Natural England ANGST standards  
[http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/regions/east\\_of\\_england/ourwork/gi/accessiblenaturalgreenspacestandardangst.aspx](http://webarchive.nationalarchives.gov.uk/20140605090108/http://www.naturalengland.org.uk/regions/east_of_england/ourwork/gi/accessiblenaturalgreenspacestandardangst.aspx)

Natural England Standing Advice on Protected Species [www.gov.uk/guidance/protected-species-how-to-review-planning-applications#standing-advice-for-protected-species](https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications#standing-advice-for-protected-species)

CIRIA: [www.ciria.org](http://www.ciria.org)  
 Numerous publications on Sustainable Urban  
 Drainage Schemes; e.g. *C753 SUDS Manual* (2015);  
*C698 Site handbook for construction of SUDS*  
 (2014); *C687 Planning for SUDS* (2010)

*Sustainable drainage – Cambridge design and adoption guide. Cambridge City Council (2009)*

Cambridgeshire & P'boro Biodiversity Partnership:  
[www.cpbiodiversity.org.uk](http://www.cpbiodiversity.org.uk)  
 List of species of principal importance for the  
 conservation of biodiversity found locally  
[www.cpbiodiversity.org.uk/432](http://www.cpbiodiversity.org.uk/432), along with a separate  
 list of other locally significant species  
[www.cpbiodiversity.org.uk/downloads](http://www.cpbiodiversity.org.uk/downloads), case studies  
 on action for priority species, and priority habitat  
 action plans.

*Biodiversity and the built environment.* UK Green Building Council Biodiversity Task Group (2009)

Cambridgeshire Landscape Guidelines (1991)  
[www.cambridgeshire.gov.uk/download/downloads/id/1371/landscape](http://www.cambridgeshire.gov.uk/download/downloads/id/1371/landscape)

Landscape Character Assessment for Peterborough  
(2007)  
[www.peterborough.gov.uk/upload/www.peterborough.gov.uk/council/jobs-and-careers/schools-and-education/strategies-policies-and-plans/strategies-polices-and-plans/strategies-policies-and-plans/strategies-policies-and-plans/planning-and-development/Planning-Policies-Evidence-Nature](http://www.peterborough.gov.uk/upload/www.peterborough.gov.uk/council/jobs-and-careers/schools-and-education/strategies-policies-and-plans/strategies-polices-and-plans/strategies-policies-and-plans/strategies-policies-and-plans/planning-and-development/Planning-Policies-Evidence-Nature%20landscapcharacter2007.pdf?inline=true)  
LEnv landscapcharacter2007.pdf?inline=true

*Trees in the Townscape: A Guide for Decision Makers.* Tree and Design Action Group (2012)  
[www.tdag.org.uk](http://www.tdag.org.uk)

*Trees in Hard Landscapes: A Guide for Delivery.*  
Tree and Design Action Group (2014)  
[www.tdag.org.uk](http://www.tdag.org.uk)

The Forestry Commission. [www.forestry.gov.uk](http://www.forestry.gov.uk)  
 Numerous publications on the selection of trees for  
 planting, approaches to woodland creation, and  
 ecological site classification tool.

The Forestry Commission site classification tool  
ESC3  
[www.forestryresearch.gov.uk/tools-and-resources/forest-planning-and-management-services/ecological-site-classification-decision-support-system-esc-dss](http://www.forestryresearch.gov.uk/tools-and-resources/forest-planning-and-management-services/ecological-site-classification-decision-support-system-esc-dss)

Joint Standing Advice on Ancient Woodland and veteran trees  
[www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences](https://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences)

## Websites

Amphibian and Reptile Conservation Trust  
[www.arc-trust.org](http://www.arc-trust.org)

Barn Owl Trust [www.barnowltrust.org.uk](http://www.barnowltrust.org.uk)

Bat Conservation Trust [www.bats.org.uk](http://www.bats.org.uk)

Biodiversity Planning Toolkit  
[www.biodiversityplanningtoolkit.com](http://www.biodiversityplanningtoolkit.com)

Buglife [www.buglife.org.uk](http://www.buglife.org.uk)

CIRIA [www.ciria.org](http://www.ciria.org)

Forestry Commission [www.forestry.gov.uk](http://www.forestry.gov.uk)

Freshwater Habitats Trust  
[www.freshwaterhabitats.org.uk](http://www.freshwaterhabitats.org.uk)

Froglife [www.froglife.org/](http://www.froglife.org/)

Green Infrastructure Partnership [www.gip-uk.org](http://www.gip-uk.org)

Hedgehog Street [www.hedgehogstreet.org](http://www.hedgehogstreet.org)

Living Roofs [www.livingroofs.org](http://www.livingroofs.org)

Mammal Society [www.mammal.org.uk](http://www.mammal.org.uk)

RSPB [www.rspb.org.uk](http://www.rspb.org.uk)

Swift Conservation [www.swift-conservation.org](http://www.swift-conservation.org)

Town and Country Planning Association  
[www.tcpa.org.uk](http://www.tcpa.org.uk)

Trees and Design Action Group [www.tdga.org.uk](http://www.tdga.org.uk)

UK Green Building Council Biodiversity Task Group  
[www.ukgbc.org](http://www.ukgbc.org)

Wild About Gardens (RHS & TWT)  
[www.wildaboutgardens.org.uk](http://www.wildaboutgardens.org.uk)

Wildfowl and Wetlands Trust [www.wwt.org.uk](http://www.wwt.org.uk)

The Wildlife Trusts [www.wildlifetrusts.org](http://www.wildlifetrusts.org)

The Woodland Trust [www.woodlandtrust.org.uk](http://www.woodlandtrust.org.uk)

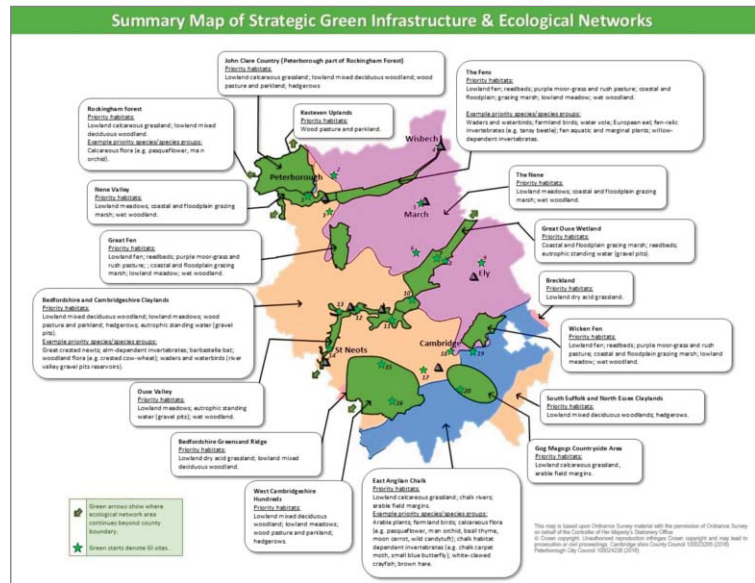


# Appendix

## Ecological Network Map

A summary map of strategic green infrastructure and ecological networks across Cambridgeshire and Peterborough has been produced as a layered pdf, with separate layers for National Character Areas, the most important ecological networks, and strategic green infrastructure sites.

This map shows the main ecological networks across Cambridgeshire and the associated text lists the priority habitats associated with each. Likewise the priority habitats most characteristic of each National Character Area (NCA) are shown in the associated text, together with example priority and locally important species characteristic of each NCA (see below for links to full species lists). Finally, the map includes a list of current and planned strategic green infrastructure sites and the main towns and cities across the geographic area.



The ecological network and National Character Area layers and associated text are best viewed separately. [www.naturalcambridgeshire.org.uk](http://www.naturalcambridgeshire.org.uk)

## Priority Species

The Cambridgeshire & Peterborough Biodiversity Partnership maintains complete and up-to-date lists of Priority Species found in Cambridgeshire and Peterborough. These have recently been published on their website.

A list of UK priority species found within Cambridgeshire and Peterborough within the recent past is located at: [www.cpbiodiversity.org.uk/432](http://www.cpbiodiversity.org.uk/432)

A list of additional species of interest which are locally important species in Cambridgeshire and Peterborough is located at: [www.cpbiodiversity.org.uk/downloads](http://www.cpbiodiversity.org.uk/downloads)

## Urban Species (suitable for action through new developments)

See **action 9** of the Toolkit.

- Garden birds, including house sparrows and swifts;
- Urban mammals including bats and hedgehogs;
- Freshwater species, including amphibians and water voles;
- Specialist invertebrates (local Greater Cambridgeshire priorities include bees, other pollinating and nectar feeding species, species of open mosaic habitats, and elm and willow dependent species);
- Farmland birds
- Arable plants

A series of case studies demonstrating action that can be undertaken for some of the more common species are being produced. This list of case studies will be expanded to include those species that new developments could do most to influence, e.g. garden birds, swifts, hedgehogs, amphibians, pollinating insects.

# 10 Things to do for Nature

**1** Demonstrably avoid impacts on irreplaceable biodiversity, or locating development where it would cause significant damage to protected sites, priority habitats or the favourable conservation status of priority species.

**2** Engage local nature conservation organisations and other local experts throughout the development process.

**3** Appoint professional ecological expertise at the start of the concept design process (this can help facilitate engagement with local experts).

**4** Understand the context of the development site within the wider landscape and ecological networks so that it contributes to strategic green infrastructure and enhancement of the natural environment beyond its boundaries, including the network of protected sites, and priority and locally important habitats and species.

**5** Plan green and hard infrastructure at the same time and retain existing natural features in situ. Provide sufficient quantity and quality of green infrastructure to deliver quality of place, provide accessible natural greenspace, enhance natural capital, & achieve a net gain in biodiversity.

**6** Provide Sustainable Urban Drainage systems with source control measures and integral wildlife features. Ensure buildings and landscape designs are highly water efficient with use of grey water systems integral. Contribute to Water Framework Directive objectives for nearby water bodies.

**7** At the start of the planning process, undertake an audit of green infrastructure including biodiversity. Quantify changes in biodiversity, including areas and quality of habitats to be lost, affected, enhanced or created and impacts on populations and distribution of priority and locally important species. Identify those habitats and species / groups of species for which positive conservation action will be undertaken (above and beyond mitigation or legal statutory requirements).

**8** Demonstrate a clear rationale for landscape design including how landscape character has been followed, the rationale for choice of tree, shrub and other species, and how locally native species will be used. Avoid the use of invasive non-native species in landscaping schemes.

**9** Provide the full range of breeding sites, shelter, and all year round food resources within the development and its immediate vicinity for those species or groups identified for positive conservation action in the biodiversity audit.

**10** Demonstrate continuity of management of important natural features from site acquisition, during construction and throughout the lifetime of the development. Green infrastructure should be provided in an early phase in a development.

## Site selection (strategic definition)

## Strategic planning (concept design)



# Natural Cambridgeshire Developing with Nature Toolkit

Detailed planning (technical design)	Implementation (construction)	Long-term management (in use)



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