

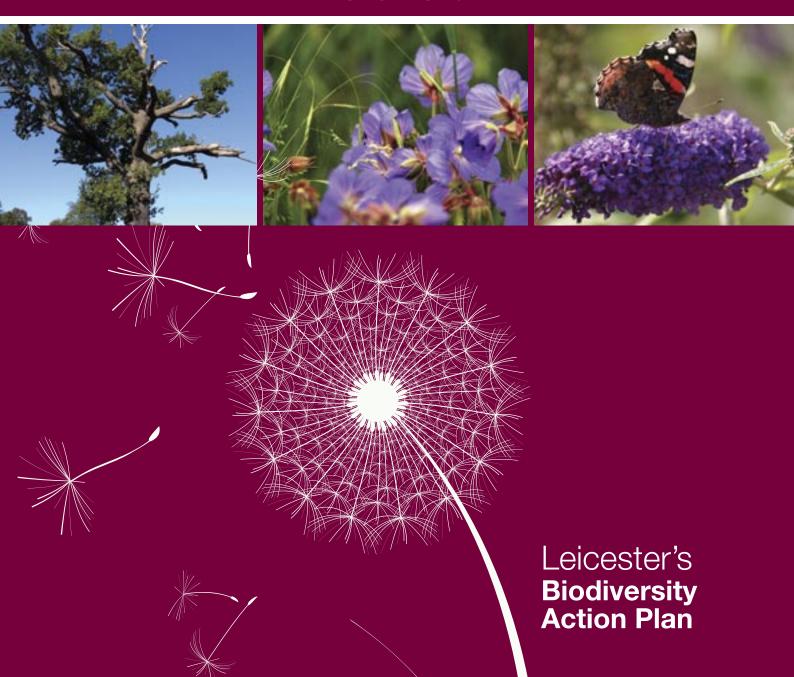
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Foreword



Foreword



Much progress has helped towards making Leicester a Beautiful and Bio-diverse city since I was involved in the first Ecology Strategy back in 1989. The City Wildlife Project surveyed our waterways and green spaces to provide a baseline from which to measure changes in the types of habitats and the wildlife they attract. Now, instead of forcing water through concrete channels to reduce flooding, we have superb examples of natural flood management along the River Soar from Aylestone to Birstall where water is temporarily stored until levels subside. New sites such as Cardinal's Meadow and Ellis Meadows have been created from disused playing fields and old allotments that not only store water but provide those valuable havens creating a super highway for wildlife. These areas and many others like them are now accessible to people who can get up close to nature. Never more so than now is the importance of our parks and nature areas recognised in helping the people of Leicester strengthen their mental and physical health. This Plan will focus on bringing more of these sites back into use for people to enjoy and wildlife to thrive.

This Plan also recognises certain species need our help. For example, the water vole, once common on the Soar and across many of our smaller brooks is now (and only recently re-discovered) at Aylestone Meadows. Swifts once a common sight over Victoria Park are now only seen in a few areas of the city and are at risk of disappearing altogether as new development and house renovations destroy their nesting habitat. The Plan provides a series of actions for the council, its partners and most of all the people of Leicester and visitors to support biodiversity across Leicester. It is a welcome addition to a suite of comprehensive documents that will help Leicester become the Beautiful and Bio-diverse city that it strives to be and has my full endorsement.

Peter Soulaby

Protecting and enhancing biodiversity and recognising the critical role that planning for nature plays in Leicester's sustainable development are both vital elements of the city's response to the climate emergency and the biodiversity crisis.

Our growing population, need for housing, schools and employment must to be balanced with providing open space of a high standard and which forms part of a well-connected network of woodland, wetlands and meadows that are managed well and significantly increase biodiversity across the city and make us better able to cope with a changing climate. These principles are entrenched in the Plan and the Planning system as an integral part to create more, bigger, better and more connected places for our wildlife.

Planting new woodlands on our open spaces, creating wetland habitats as part of our flood risk strategy on major development sites such as Ashton Green and creating greener highways with our wildflower verges and new beefriendly living-roof bus-shelters are just some of the ways that is helping wildlife and people cope with our changing climate. This Plan is a vital document that sits within the Climate Emergency framework and fully recognises and supports actions to alleviate the Biodiversity crisis.

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The loss of biodiversity at a global scale is significant and in need of action to help stop decline. Global impacts of climate change and the ever-present threat of reaching a point of no-return with record temperatures broken annually, severe droughts and prolonged periods of flooding are all taking their toll on our species of flora and fauna. Our ability to do something about this locally and to act now in this state of emergency has significantly increased with the predictions of climate change.

Alongside this, the unprecedented and still unknown impacts of Covid-19 are expected to impact on biodiversity at both a global and local scale. During the initial phases of lockdown in the UK, it was surprising how quickly our wildlife "recovered". In Leicester, the air quality improved and our Parks and Open Spaces looked "greener"; water quality improved so we could see the bottom of the canal or river allowing our plants and animals access to light and breathe again by increasing oxygen levels through natural processes of photosynthesis. People were forced to visit their local patch – the park down the road to simply listen and enjoy birdsong, watch butterflies and bees flit from flower to flower and re-discover the simple pleasures of getting close to nature.

Whilst Leicester is a bio-diverse city located ecologically in the middle of the country and well-placed for ecological restoration, it is also mindful of the continuing decline of many habitats and species of conservation (and human) importance. Demands for species to exist (and provide benefits to humans) within the city are high and the required ecological enhancements to ensure their continuation (and the continuation of the benefits given to humans) requires space for breeding, nesting, feeding and growing.

Since the first Leicester BAP (2006-2009) was published there have been significant changes in legislation, guidance and mechanisms at a national and local level to support biodiversity and to help halt its loss. The government published **A Green Future: Our 25 Year Plan to Improve the Environment** in 2018 and set out a framework by which to support our biodiversity. It is set in context with anticipated changes resulting from climate change together with local demands from an increasing population and the infrastructure to support. Leaving adequate space for our wildlife to thrive is well-recognised amongst the environmentalists, but we need to do more to raise awareness and create additional habitats or improve others for our species. Relic habitats from a former agricultural and industrial past provide important havens and include species-rich meadows such as Braunstone and Kirby Frith; ancient woodland at Knighton Spinney and Meynell's Gorse together with floodplain meadows at Aylestone and Birstall fed by the River Soar.

The principles of the Lawton review (2010) are as relevant today as they were when first identified and the mantra of "More, Bigger, Better, Connected" now lies at the heart of our new Biodiversity Action Plan. These relic sites are fragile and in danger of being isolated so ensuring we have more sites that are better connected will be achieved by identifying areas to improve biodiversity and provide corridors and dispersal routes for wildlife across the city.

Identifying suitable "Biodiversity Opportunity Sites" to prioritise habitat creation, restoration or enhancement to conserve species and establish a robust Nature Recovery Network that links from the city to the wider countryside is a major aim of this Plan. Work is on-going along the River Soar corridor to create more wetlands at Aylestone, Belgrave and Watermead that connect marsh, floodplain and wetland to the rivers and brooks. Road-verge meadows and re-wilding our parks to support pollinators, works along our smaller brooks to re-naturalise and an extensive programme to look after our existing tree stock and plant more trees in the best places to ensure their survival in the future will all contribute towards a resilient Nature Recovery Network to help secure wildlife conservation in Leicester.

Getting people involved in as many different ways possible and letting people know what they can do, when and why is an important way of getting support and will be run alongside a programme to tell people where the best places for wildlife are and what they can see on their visits. Wildlife really is on the doorstep for many people living in Leicester and should be part of their daily lives.

This Biodiversity Action Plan needs to be fit for purpose and the challenges that lay ahead. To help with this, the Plan has been divided into two parts. Part 1 focuses on the legislation and environmental framework that supports biodiversity from international to local level and the mechanisms in place at a central and local government level to help achieve these ambitious aims. Part 2 describes the actions for certain habitats and species that are associated with Leicester and the Midlands. It sets actions and targets for the council, stakeholders and their partners together with community groups and individuals to help conserve these habitats and their associated species. Above all, this is not just about what the local authority can do, but more about how they can help facilitate and achieve the vision and aims set out in the Plan.

Working together, the Plan will take forward and adapt to the very real challenges set by climate change and Covid-19. It will implement the Plan over the next 10 years and will continue to review and revise Action Plans and update them depending on changing circumstances, legislation/regulation or other changes which occur during that period. It should not be seen as a stand-alone document but is very much part of a suite of Environmental documents produced by the council and partners. The Plan contains realistic and achievable targets to create new environments, safeguard others and get people involved to help our wildlife to thrive and for Leicester to be a Beautiful and Bio-diverse city.



Chapter 1.0 Introduction



1.0 Introduction

The Leicester Biodiversity Action Plan (BAP) provides an over-arching framework for habitat and species conservation in Leicester. It recognises the opportunities for biodiversity to be integral to sustainable living and central to achieving net gains in biodiversity across the city.

It recognises the benefits bio-diverse green space can bring to people and will identify better ways to promote and engage people in wildlife conservation.

To achieve this, the council will work with service areas within the council, politicians, external partners and the local community to ensure a co-ordinated approach to fulfilling its aims and objectives.

1.1 THE VISION

Create a city rich in biodiversity where nature is able to disperse across well-connected, diverse and high quality habitats capable of supporting characteristic species and safe-guarding them from further decline with the support of people fully engaged in helping species and conserve areas across Leicester.

1.2 LEICESTER BIODIVERSITY ACTION PLAN AIMS

To conserve and enhance a range of habitats and associated species that characterise the city of Leicester, contributing to the regional and national biodiversity whilst providing an attractive and sustainable natural environment in which to live, work, learn and enjoy.

- Create, conserve and enhance all habitats wherever possible and increase the biodiversity value of designated and/or priority habitats back to favourable status
- Conserve protected and priority species by highlighting threats and issues, agree targets and actions to address them and help with their recovery
- Create Nature Recovery Networks by identifying, creating and improving green corridors and by creating and enhancing ecological connectivity
- Improve ecological resilience by promoting good design to optimise biodiversity and achieve multiple benefits in projects and planning
- Promote biodiversity conservation as an essential element of sustainable development and adaptation to climate
- Raise awareness of biodiversity and nature conservation and its importance and encourage active participation at all levels

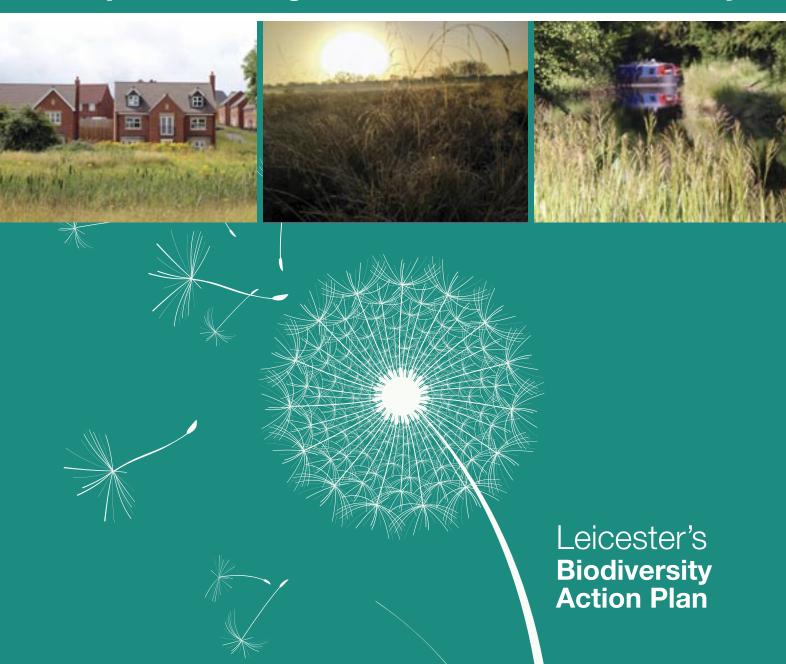
1.3 LEICESTER CITY COUNCIL ACTIONS:

The council will work in partnership with others wherever possible to achieve the following:

- Oversee the production and implementation of the Leicester Biodiversity Action Plan
- Strengthen and improve the duty of the local authority to make sure it carries out its function to conserve and enhance biodiversity
- Identify and map the current green network of priority sites and identify opportunities for biodiversity enhancement that will contribute to an overall Nature Recovery Network
- Seek opportunities for joint projects and partnership working with internal and external stakeholders to create or restore priority habitats and recover important species of animals, plants and fungi
- Seek out ways to commit landowners to a binding agreement to secure the long-term sustainability where wildlife-rich sites have been created or restored
- Monitor and review biodiversity trends in Leicester to and report on progress and achievements at a national and local level
- Champion and promote Leicester's biodiversity using a range of publicity to fully engage with stakeholders at all levels
- Support and provide inspiration for conservation projects, events and activities involving the local communities



Chapter 2.0 Background to Leicester's Biodiversity



2.0 Background to Leicester's Biodiversity

2.1 DEFINITION OF BIODVERSITY

Biodiversity (a contraction of 'biological diversity') refers to the number, variety and variability of living organisms. It is often defined in terms of genes, species and ecosystems. Biodiversity is widely considered to be a measure of ecosystem quality or health: greater biodiversity indicates better health.

2.2 HISTORY OF BIODIVERSITY ACTION

Biodiversity Action Plans (BAPs) emerged as a consequence of over 150 countries signing up to the Convention on Biological Diversity (CBD) held in Rio de Janeiro in 1992 to address significant declines in wildlife at a global scale. These countries were required to develop national strategies for the conservation of biological diversity and sustainable use of biological resources.

Work on a global scale has continued with conventions on Biological Diversity held every ten years. The last convention was held in Japan and resulted in the revision and adoption of the updated Strategic Plan for Biodiversity and included the Aichi Biodiversity Targets for the period 2011-2020.

A set of 20 Aichi targets contained within five strategic goals were set out to be achieved by 2020

- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;
- Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use
- Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;
- Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services
- Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Progress on actions and outcomes achieved by the UK are available at https://www.cbd.int/nbsap/targets/ and although clearly much work has been done to implement processes, raise awareness and encourage participation, there is still more to be done to put measures in place that will fully ensure biodiversity is maintained and enhanced or that further degradation is halted. Delivery of resilient and coherent ecological networks, healthy and well-functioning ecosystems which deliver multiple benefits for wildlife and people is a clear message. However, targets set at 90% of priority habitats in favourable or recovering condition and at least 50% of SSSIs in favourable condition and recovering by 2020 have not been achieved.

Similarly, more, bigger and less fragmented areas for wildlife with no net loss of priority habitat and an increase in the extent of these habitats as well as fully functioning and resilient ecological networks by 2020 emphasises that biodiversity action so far in the last 25 years has not been sufficient to stem the tide of loss. More action is required and a commitment by participating members to agree actions post-2020 was called for in 2017.

2.2.1 NATIONAL - THE UK'S BIODIVERSITY PROGRAMME

The UK government published its first UK Biodiversity Action Plan (UK BAP) in 1994, last updated in 2007. The BAP puts forward plans for conservation of the UK's biological resources and to meet these targets, a network of Local Biodiversity Action Plans (LBAPs) at a regional and county level were published. In 1999 45 UK Habitat and 391 Species Action Plans were drawn up.

In 2011 the UK BAP was replaced by 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' which formed part of the UK Post-2010 Biodiversity Framework. This set out new country-level strategies for England, Scotland, Northern Ireland and Wales up to 2020. The Biodiversity 2020 aim was to:

"halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people."

Defra has recently published A Green Future: Our 25 Year Plan to Improve the Environment (Defra 2018) which details plans to improve air and water quality and protect threatened wildlife. The aim is to achieve clean air, water, thriving plants and wildlife, reducing risk of harm from environmental hazards, using resources more sustainably and enhancing beauty, heritage and engagement with the natural environment.

A number of goals have been recommended to take forward a programme of work - the most relevant to biodiversity are:

Thriving plants and wildlife

- Restore 750 000 ha of terrestrial and freshwater protected sites to favourable condition, securing their wildlife value for the long-term;
- Create or restore 500 000 ha of wildlife-rich habitat outside of the protected site network focus
 on priority habitats to provide extensive benefits;
- Be pro-active in species recovery of threatened animals, plants and fungi
- Increase woodland cover in England (by 12% cover by 2060 = 180 000 ha of planting by 2042)

Using resources from nature more sustainably and efficiently

- Strengthen existing requirements for net gain for biodiversity in National Planning Policy and expand to include wider natural capital benefits e.g. flood protection, improved water and air quality;
- Introduce tools and guidance that support biodiversity net gain approaches
- Produce stronger new standards for Green Infrastructure
- Support community forests in urban tree planting schemes to bring trees and GI to towns and cities, providing Woodland grants and appointing a Tree Champion
- Increasing the number of SUDS (Sustainable Urban Drainage) and amending Planning Practice Guidance (PPG)
 to clarify construction and on-going maintenance for SUDS in new developments, tightening links with planning
 guidance for water quality and biodiversity

Enhanced beauty, heritage and engagement with the natural environment

- Creating a Nature Recovery Network of up to 25 new catchment or landscape-scale Nature Recovery Areas of up to 500 000 ha for wildlife habitat to include wildflower-rich meadows, woodland and peatland
- The Nature Recovery Network will provide better access for people alongside improved habitat for pollinating insects

The key policies to achieve these goals are:

- Using and managing land sustainably
- Recovering nature and enhancing the beauty of landscapes
- Connecting people with the environment to improve health and wellbeing

2.2.2 REGIONAL - EAST MIDLANDS STRATEGIC PLAN

This Strategic Plan was drawn up in 2009 by the East Midlands Development Agency (EMDA) and provided a broad development strategy for the East Midlands up to 2026. It contained regional policies for protecting and enhancing the natural environment and promoting green infrastructure.

The EMDA with all policies was abolished in 2012 and replaced by Local Enterprise Partnerships (LEP).

2.2.3 LOCAL - LEICESTER, LEICESTERSHIRE & RUTLAND BAP

A Biodiversity Working Group drew up the first Leicester, Leicestershire & Rutland BAP (LLR BAP) in 1998 'Biodiversity Challenge: an Action Plan for Leicester, Leicestershire and Rutland'. The Plan identified 17 Habitat Action Plans and 14 Species Action Plans.

In the 2005 update the numerous targets and actions detailed in the original plan were greatly reduced due to their complexity and accuracy in reporting. Urban Habitats (Leicester) was also added to the County BAP, but this contained details at a very generic level.

In 2010 the LLR BAP had a major revision to include the creation of new habitats in the wider countryside which had largely been over-looked previously. The BAP recommended actions and opportunities to enhance these areas and consider how they could be connected to a wider network of sites of higher value and so help with conservation and dispersal of species at a landscape scale.

In 2016 the LLR BAP was again updated to cover the period 2016 – 2026. All 19 Priority Habitats were revised, together with an assessment of the current state and trends. Species Action Plans were also updated with the addition of a Swifts, Swallows and House Martins plan. Urban habitat was also retained in the Plan in its wider context to include major towns and conurbations outside of Leicester such as Loughborough, Melton Mowbray and Market Harborough.

2.2.4 CITY - THE LEICESTER CITY BAP

Innovative work carried out in the 1980s produced Leicester's first ecology plan 'Leicester Ecology Strategy Part One' in 1989. Evidence was gathered from a habitat audit undertaken by the City Wildlife Project and helped Leicester to become the first Environment City for its ground-breaking work in this area.

In 2006 Leicester City Council and Environ produced the first Leicester BAP 'Wild About Leicester – Leicester Biodiversity Action Plan' 2006-2009 which identified habitats present and specific to Leicester. These included pre-industrial rural landscapes, built structures and managed open spaces such as parks, allotments and private gardens. This BAP complimented the LLR BAP and considered the importance of these habitats in a local context and how they related to people interacting with them.

In 2011 Leicester produced the second BAP 'Leicester's Biodiversity Action Plan 2011 – 2021' which identified a number of specific objectives separated into:

Participation Objectives – to encourage involvement in and awareness of wildlife issues and habitat recording;

Strategic Objectives – to improve dispersal and mitigate against climate change and other environmental impacts through development of an effective biodiversity network;

Habitat Objectives - to improve the condition of habitat types and increase their biodiversity value

2.2.5 LEICESTER'S BIODIVERSITY ACTION PLAN 2021 - 2031

Leicester's previous BAP was written to cover a 10-year period 2011 – 2021, but since then there have been significant changes in legislation, government strategies and plans as well as national and local planning policies relating to biodiversity.

This plan takes into account those changes, but continues to build on the approach of the last BAP in response to the changing priorities on a UK and Leicester scale.

The plan is divided into two sections:

- **Part 1:** Sets out the past and present context of Biodiversity planning nationally and locally in the objectives and actions within planning and policy, public participation and monitoring and review of biodiversity in Leicester.
- Part 2: Habitat Action Plans and Species Action Plans specific to Leicester containing a programme of actions to be delivered by the council and BAP partners to achieve the aims and objectives of the overall Plan

With reference to the international commitment to halt biodiversity loss and establish resilient and coherent ecological networks set out in the Aichi targets and anticipated post-2020 actions, it is perhaps even more significant that local BAPs are still part of an international and national framework to deliver positive changes and raise awareness at a local level.

2.3 LINKS TO OTHER STRATEGIES AND PLANS

Leicester has a number of Strategies and Plans that cross-reference Biodiversity within their agendas and programmes of work. These are regularly reviewed alongside a programme of actions to deliver their aims and objectives. These plans and other strategies are available on the Council website at https://www.leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-sustainability/

The most relevant are below and listed in Section 8 References.

2.3.1 LOCAL - LEICESTER'S SUSTAINABILITY ACTION PLAN 2011 - 2019

Leicester's Sustainability Action Plan (LSAP) captured sustainability across the whole council. It drew on a number of documents from specific services that manage a programme of sustainability in Leicester. The Action Plan has been replaced by Leicester's Climate Emergency Strategy (see below) following the raised awareness for actions to reduce impacts predicted through climate change.

Leicester's BAP was a key document in the Sustainability Action Plan and the Plan cross-referenced several targets from the BAP and will continue to be fully aligned with the new Climate Emergency Strategy. This over-arching document will seek ways to enable biodiversity conservation to be more easily and consistently integrated into other strategic plans and projects through its developing aims, objectives and proposed actions.

2.3.2 LOCAL - LEICESTER CLIMATE EMERGENCY STRATEGY 2020 - 2023

Climate change in the UK is predicted to lead to drier and warmer summers and milder and wetter winters interspersed with extreme weather events such as flooding and drought. Climate change is therefore likely to alter the natural environment with some species more at risk of local extinction through habitat loss and fragmentation caused by extremes of weather conditions. Long hot summers or increased flooding degrading water quality and damaging our ecosystems is likely to lead to changes in life cycles of many wildlife species as well as disrupting growing conditions for plants and trees that provide a valuable habitat and food source.

Species shift their populations northwards to cooler areas whereas others migrate southwards to take advantage of the warmer conditions. Species that hibernate and rely on food source availability are more vulnerable when they awake during periods of unseasonal warm weather during the winter or may die during prolonged cold spells. These behavioural changes to our wildlife caused by changing weather patterns could disrupt the delicate balance of our ecosystems.

Opportunities for mitigation against the impacts of climate change in Leicester are central to the delivery of the outcomes of the Green Infrastructure Strategy and associated biodiversity outputs in the BAP. Using natural climate solutions to work with nature to achieve a multitude of environmental and social benefits will be prioritised.

Adaptation measures that support the national UK Biodiversity Framework and Defra Environmental Plan are directed to conservation of our wildlife as well as mitigation against climate change. Actions to address climate change adaptation have been included in the LSAP from 2011 and will continue to be addressed through the new Climate strategy and action plan. The BAP will be closely aligned with the Climate Emergency Strategy to support actions to reduce predicated changes and help conserve our wildlife and fragile habitats in Leicester. The BAP will also remain the key document for addressing adaptatin measures relating to biodversity.

Examples of how this can be done are:

- A strategic landscape-scale approach to habitat creation or restoration to reduce fragmentation and promote permeability across the landscape using natural flood management;
- Provide dispersal routes for wildlife within and through sites to link to adjacent areas to create functioning Nature Recovery Network
- Plant native tree varieties and plants that will tolerate changing climate e.g. both droughts or flooding, extremes
 of hot or cold temperatures
- Changes in habitat management to adjust to changing climatic conditions e.g. hay-cutting season;
- Promote innovation in central urban areas where space is limited with habitats of green walls or roofs and wildlife structures integral to the built environment (see Buildings and Built Structures)

2.3.3 LOCAL - LEICESTER'S GREEN INFRASTRUCTURE STRATEGY 2015-2025

This strategy provides an objective assessment of Leicester's current assets and uses a series of maps to illustrate where to prioritise projects to deliver the maximum number of benefits and ecosystem services for the city. It encompasses some of the key aims and objectives of other service areas by recognising the value of green space and green networks in helping to achieve these benefits.

The over-arching aims of the strategy are separated into five priorities

- 1. A Place to Do Business and Get About linked to economic growth, regeneration and built design together with sustainable transport and car travel
- **2.** A Bio-diverse and Beautiful City linked to provision of habitats, access to nature, attractive and well-maintained areas of green space
- **3.** A Healthy and Active City linked to green transport routes and formal/informal recreation to address health and quality of life issues
- **4.** A Naturally Sustainable City linked to flood storage, controlling impacts of climate change, improving soil, water and air quality
- **5.** Planning for Green Infrastructure embedding the strategy within local policy and developing a strategic green network of space capable of providing multiple benefits in a cost effective and sustainable way

2.3.4 LOCAL - LEICESTER'S POLLINATOR STRATEGY 2020 - 2025

The Strategy is a legacy of the successful Urban Buzz Project (2017 – 19) between the council and Buglife which resulted in over 100 sites across 35 ha of open space being created or enhanced to benefit pollinators.

This Strategy aims to create a sustainable green network of flowering plants and habitats that will support pollinators through the provision of abundant food sources and nesting habitat.

Leicester's Pollinator Strategy sets out to help pollinators by endorsing a long-term commitment to raise awareness and highlight the serious decline in our native species'. It recognises the important role local authorities have in using their regulatory powers and other functions to deliver, promote and encourage others to participate in work that will benefit pollinators.

The Plan sets out how the council can influence how its land can be both developed and managed across the city through the local planning process and as managers of public open space (POS) and design of green infrastructure to improve networks and connectivity.

This Strategy links closely with the Biodiversity Action Plan and Green Infrastructure Strategy under the umbrella of the Climate Emergency Strategy to allow a co-ordinated approach to help conserve this valuable species group.

2.3.5 LOCAL - LEICESTER'S TREE STRATEGY 2018-2023

The city council manage 150 000 trees across the city in various locations such as Parks and open spaces, along highways, within housing estates and school grounds and other areas such as council-owned churchyards and cemeteries and allotments. This totals 107 ha of woodland within these locations. In addition, the council's team provides advice on trees and/or woodland which may be affected through planning and development, particularly on private land within Conservation Areas or where the trees have been designated with a tree preservation order (TPO).

Three strategic aims of the Strategy are to increase the canopy cover and tree numbers within council control; effectively manage the trees in a consistent and economic way which will help to avoid conflict wherever possible and to encourage and advise other landowners to plant and manage their trees effectively.

Specific reference within this Strategy is made to the Green Infrastructure Strategy and the Biodiversity Action Plan. Whilst the emphasis on the Strategy is more closely linked to effective management of trees, there is also recognition that trees reduce flood risk whilst providing valuable assets as habitats in their own right as roosts, nesting and food sources for a range of species groups. They provide valuable ecosystems at a macro and micro-level within woodlands and mature/veteran trees so effective management is key to their longevity and maintenance of their ecological structures.

Impacts from predicted changes to our climate are likely to have an impact on some of our native tree species and the species of flora and fauna they support. Ensuring that the councils plans and strategies take a consistent approach that will support a range of agendas is paramount. The right trees in the right place and how new species or sub-species can be planted to tolerate extreme droughts or flooding will also help conserve the biodiversity of Leicester.

2.3.6 LOCAL - LEICESTER'S SURFACE WATER MANAGEMENT PLAN

Increasing the capacity for sites to store water on a temporary or permanent basis is fundamental to lowering the risk of flooding across Leicester. Using the principles of natural flood management by incorporating soft engineering techniques such as swales, ponds, green roofs/walls and rain gardens has enabled new wetland habitats to be created across the city. These stepping stones are vital to many species that rely on the water environment for all or part of their life-cycle. Fed largely from run-off from hard surfaces, they are particularly valuable as water sources during periods of drought and provide attractive green space associated with residential development and amenity space.

A programme of flood management along the River Soar from Aylestone to Birstall has helped to create a series of wetlands, open water, meadows and woodlands that control water flows during and post-storm events. Key sites such as Ellis Meadow, Cardinal's Meadow, Loughborough Road North and Swans' Nest wetland have been created in recent years in partnership with the Environment Agency. Although their primary role is to reduce flood risk, the creation of these habitat types on areas of low biodiversity has now created a haven for wildlife and helped to strengthen the ecological corridor to help dispersal. This supports the aims and objectives of several strategies which include the BAP, GI Strategy, Riverside Strategy and Surface Water related Plans (a suite of documents which include the Leicester Local Flood Risk Management Strategy, Strategic Flood Risk Assessment, Riverside Environmental Strategy). The council has worked closely with partners such as the Environment Agency, Severn Trent Water, Soar & GUC Partnership and River Soar Catchment Partnership to achieve multiple benefits recognised in several award-winning schemes.

Whilst there are always opportunities to do more, these schemes provide a useful example of how partners can work together to create safe, attractive green space, well used by local residents and particularly valuable for wildlife.

Reducing the amount of hard-surfacing in urban areas by working closely with planning and encouraging private households and businesses to not pave over gardens, using permeable materials and creating rainwater gardens and planting beds to absorb surface water runoff provide additional opportunities for biodiversity at a local level.

2.3.7 LOCAL - LEICESTER'S JOINT HEALTH & WELLBEING STRATEGY 2018 - 2023

The beneficial effects of attractive and bio-diverse green space on people's health and happiness has been well recognised for some time. Creating or enhancing areas that are good for people are also likely to be beneficial to wildlife. The design and layout of new development and projects together with after-care establishment and on-going management are fundamental to achieving a successful scheme that will provide sustainable green space to benefit people and wildlife.

Key actions in the Leicester Climate Emergency Strategy linked to moderating the heat island effect through increases in vegetation and urban trees should reduce temperatures through shading, evapotranspiration and disrupting wind speeds that will bring health benefits to urban areas. Opportunities to explore ways of targeting those areas with the highest number of residents with health issues, availability and access to green space and how to balance with the needs of wildlife will be integral to developing well-designed schemes to achieve maximum benefits.

2.3.8 LOCAL - LEICESTER'S LOCAL TRANSPORT PLAN 2011 - 2026

Well planned and designed road networks, cycle routes and pathways in and out of Leicester along our roads and especially between our parks and nature areas, together with commuter routes to work and school can be planted with trees, wildflower lawns or shrubs and combined with SUDS (rainwater drainage) will provide attractive, cooler routes and encourage use. Greening-up these vehicle and pedestrian corridors will enhance the green network and connectivity for wildlife to disperse whilst improving people's health and wellbeing by encouraging more exercise and better access to attractive green space.

The Transport Strategy already includes such measures and ensuring their inclusion in new schemes is key to achieving multiple-benefits that will help our wildlife in Leicester.

"We will improve the landscape and biodiversity at every opportunity. We will also prevent loss of flora and habitat by adopting as a policy the presumption against building on green amenity areas or the extinguishment of highway rights over them so that full control can be exercised. The areas will be retained for the benefit of flora and fauna and the community overall. We are also able to plant more trees in such amenity areas, as suitable tree locations within the main highway areas are very limited for operational reasons. The provision and the maintenance of trees on the highway contribute to air quality improvements. Habitat severance will be avoided where possible. Where this is not possible the effects will be minimised by providing connecting channels".

2.3.9 LOCAL - LEICESTER'S AIR QUALITY ACTION PLAN 2015 - 2026

This plan identifies key hot-spots where actions are required to reduce pollution from emissions and help improve air quality. By doing so this will benefit the people who live and work in Leicester but also any associated wildlife.

Consultation towards an end-design that includes simple measures such as seeding with wildflower lawn mixes tolerant of regular cuts on verges; planting the right trees to improve air quality and foraging corridors for wildlife whilst raising awareness of the importance these networks are all possible.

Theme 4: Enhancing Planning & the Environment Action 16: Using Trees and Plants to Reduce Air Pollution recognise these opportunities to use natural processes to help mitigate poor air quality. The plan states:

In urban areas, trees, vegetation and green space can help absorb pollutants and improve air quality by absorbing pollutants, and preventing pollutant concentration. In addition to using green spaces to mitigate the effects of poor air quality, opportunities may exist to adapt our transport behaviours and utilise our cycle networks and other forms of active travel around the city centre. We will work with the local universities to find the best pollution absorbing plants and trial the use of them to combat air pollution from cars. This may include altering planting guidance in our Biodiversity Action Plan to use these plants and also trial the use of 'Green Walls'.

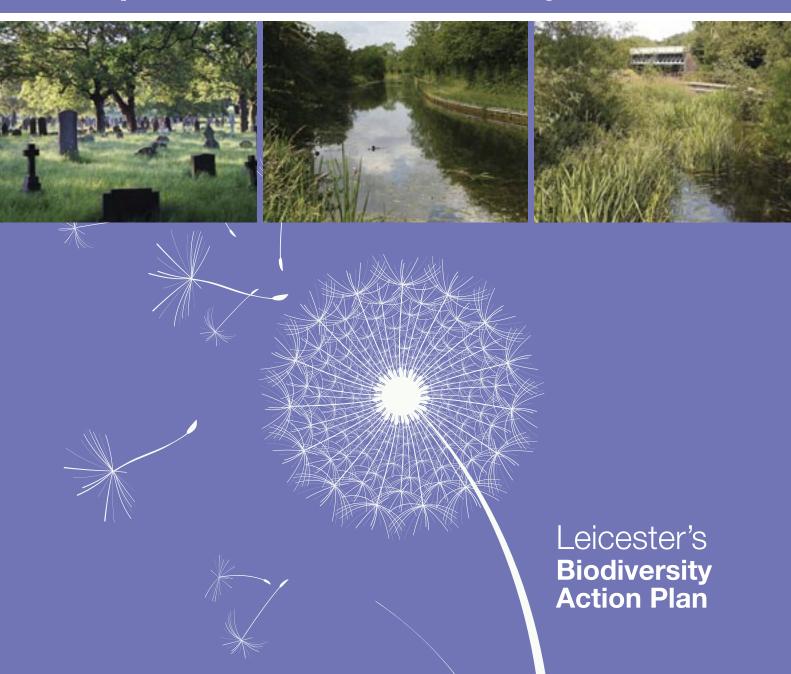
2.3.10 LOCAL STRATEGIES SUMMARY

Whilst it is clear that many of the environmental plans and strategies for the city have some reference to biodiversity, it is sometimes difficult to put these into context with how they can help achieve the strategic aims and objectives and link to the over-arching plans for the city.

As each Plan is updated or reviewed it will provide further opportunity to highlight the content of the BAP and where multiple benefits could be achieved both for Biodiversity and the relevant Plans.



Chapter 3.0 Overview of Biodiversity in Leicester



3.0 Overview of Biodiversity in Leicester

Leicester's geology, land use and human history have helped to shape the general character of the landscape and influence the biodiversity found in Leicester today.

As well as Leicester's obvious urban environment the city has retained many natural and historic features and created new habitats of natural green space to help conserve our wildlife.

The range of Biodiversity found at Leicester's statutory and non-statutory nature conservation sites, UK, Local and Priority BAP Habitats which support Local and Priority Species (under NERC Act 2006), and green or ecological networks which link corridors or provide stepping stones from one habitat to another is described.

Many of our most important and bio-diverse areas in the city have been designated as Sites of Special Scientific Interest (SSSI), Local Nature Reserves (LNR) or Local Wildlife Sites (LWS) to afford them additional protection and enhancement opportunities.

These areas cover a very small percentage of the overall area of the city but connecting them to other open space though our Green Network is fundamental to assisting our wildlife to disperse and colonise a range of sites across the city and beyond. This network is formed by a number of strategic blue/green corridors made up of water and terrestrial habitats such as the River Soar and Grand Union Canal, the Great Central Way, the Rothley Brook and the Mainline and Ivanhoe Railway lines. These are supported by smaller networks along the routes of our main roads and brooks, but many opportunities exist to enhance connectivity and diversity for our wildlife. Many areas are not designated and may contain common types of plants to support a range of habitats for wildlife. In a local context these are important and contribute to the wider strategic network of sites across Leicester that will make up our Nature Recovery Network (NRN).

3.1 PROTECTED AND DESIGNATED SITES

Statutory authorities, partners, developers and local communities need to be aware of the most important sites of wildlife value so that the planning system and other legal requirements can be complied with. It also provides opportunities for further enhancements to be channelled into those sites through appropriate contributions via planning or funding.

A recognised hierarchy of site designation at an international, national and local level in order of importance gives those sites the highest level of statutory protection.

3.1.1 SITES OF SPECIAL SCIENTIFIC INTEREST

The highest level of site designation in Leicester is the SSSI. Leicester has only one SSSI at Gypsy Lane Claypit which is designated for its geological importance as a former gypsum quarry, but is also of ecological value containing several locally rare plants.

SSSI's are designated and reviewed by Natural England. They have statutory protection under the Wildlife & Countryside Act (1981), as amended by the Countryside & Rights of Way (CROW) Act (2000) which provides for a statutory underpinning for biodiversity conservation in accordance with the European Convention on Biological Diversity.

The CROW Act also requires public authorities, including Local Authorities to take reasonable steps to further the conservation and enhancement of the special features of SSSIs in exercising their function.

3.1.2 LOCAL NATURE RESERVES

Local Nature Reserves (LNRs) can be declared by Local Authorities in areas over which they have jurisdiction under Sections 19 and 21 of the National Parks and Access to the Countryside Act (1949) in consultation and agreement with Natural England.

The main function of the reserves is to provide an opportunity for people to be involved in practical nature conservation work and in caring for the wildlife and their local environment. Raising awareness and understanding the value of these areas for wildlife and encouraging studies in nature conservation is also a key requirement of their designation.

Leicester currently has 8 formally designated LNRs and nine candidate LNRs (cLNR). The sites are shown below.

Local Nature Reserve	Area (ha)
Aylestone Meadows	73.5
Bennion Pools (cLNR)	6.29
Braunstone Park Meadow (cLNR)	3
Castle Hill County Park (cLNR)	85.39
Ethel Road Verge and Ponds, Evington Park (cLNR)	1.5
Glen Hills LNR (joins to Glen Parva LNR)	0.53
Goss Meadows	2.96
Highway Spinney and Meynell's Gorse (cLNR)	8
Humberstone Park	2.4
Kirby Frith	1.9
Knighton Spinney	2.9
Stokeswood Park (cLNR)	6
The Orchards	6.6
Washbrook Nature Reserve (cLNR)	2.86
Watermead South Phase 1	48.9
Welford Road Cemetery (cLNR)	12.39
Willowbrook (cLNR)	12

3.1.3 LOCAL WILDLIFE SITES AND GEOLOGICAL SITES

Local Wildlife Sites (LWSs) (formally known as Sites of Importance for Nature Conservation (SINCs)) do not have statutory protection, but they are recognised in the planning system and Leicester Local Plan (LLP) as areas of biodiversity value in a local context. In some cases they may meet the criteria for designation as a SSSI and therefore should not be considered any less valuable in a biodiversity context.

Leicester currently has **45** LWSs plus over 150 mature trees that have been formally designated using agreed criteria for each habitat type or species group. These are reviewed on a rolling five-year basis. A list of these sites is in **Appendix 1.** The sites are monitored annually to report on their condition and status for national monitoring purposes and advice on appropriate management to maintain or enhance their value. The main habitat types in Leicester include wetland, rivers and brooks, hedgerows, meadows and woodland that can also support rare and vulnerable species. Their designation is agreed by a conservation panel of local conservation organisations and authorities.

The criteria for designation are set out in 'Guidelines for the selection of Local Wildlife Sites in Leicester, Leicestershire and Rutland (revised 2011) published by Leicestershire County Council. The definition of LWS given in this publication is:

'Local Wildlife Sites are important reservoirs of rare, local and declining native species and are the best examples of typical Leicester, Leicestershire and Rutland habitats. LWS may also be areas of ecological interest that provide people with the opportunity to learn about, appreciate and experience habitats and species of the natural world.'

Potential (pLWS) and Candidate LWS (cLWS) are those sites that meet the criteria, but have yet to be formally designated. New cLWS are identified through surveys and evidence gathered that meet criteria based on habitat quality and quantity, diversity and access. Potential LWS are those that are likely to meet the criteria, but further survey work is necessary to confirm.

The number and type of LWSs changes from year to year as some sites are identified and designated whilst others may be lost or no longer meet the criteria. See Section 5.2 regarding avoidance of loss, mitigation and compensation.

3.1.4 LEICESTER'S GREEN/BLUE NETWORK

The green network forms an integral part of Leicester's Green/Blue Infrastructure and comprises both designated and non-designated sites which are strategically located across the city in areas that help to protect adjoining sites by acting as a buffer or physically connect sites by linking habitats along their length. The green sites comprise of the terrestrial habitats around the city such as meadows, hedgerows, woodlands and trees whilst the blue network is made up of our rivers, brooks, canals and other open waters such as lakes and ponds.

Many of these sites are allocated as green space in the LLP, but some may be privately owned vegetated areas such as gardens, allotments, churchyards, hedgerows, roadside verges and landscaped areas around employment and housing land. Many were previously identified and designated as Biodiversity Enhancement Sites (BESs) because of their function of linking LWSs and strengthening wildlife corridors. Their main opportunity in relation to biodiversity was to enhance the ecological network, but it is also recognised that this network can provide many ecosystem services and help to mitigate and ameliorate impacts of climate change. Improving air and water quality, stabilisation of soils and carbon sequestration, reducing flood risk and creating usable areas of local amenity space to help people enjoy the places they live and work in are examples of the wider benefits whilst still recognising opportunities for wildlife.

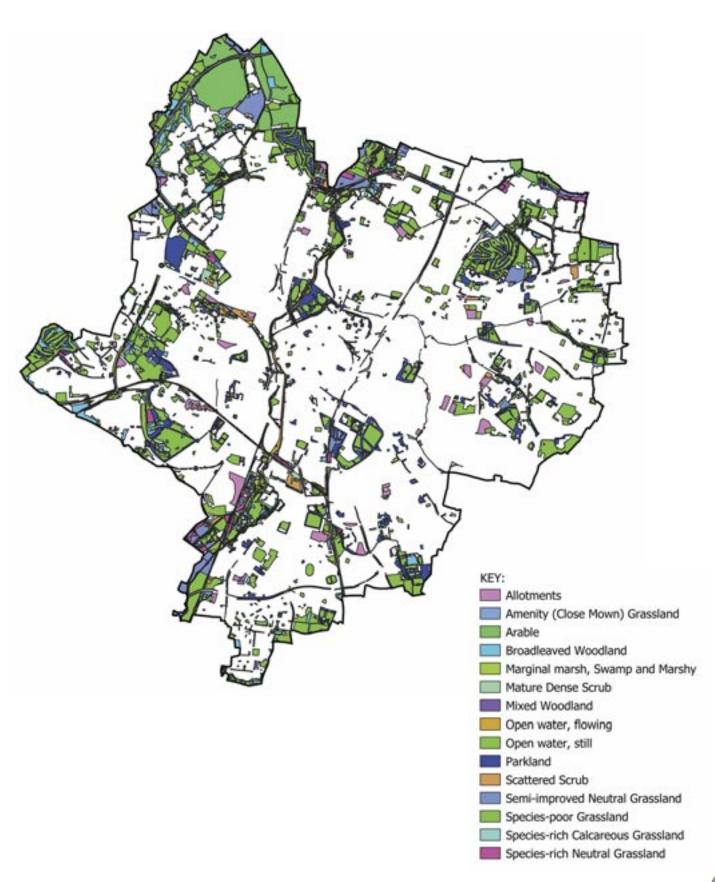
The Open Space Study 2017 and Open Space chapter in the LLP assessed the quantity, quality and accessibility of these areas in relation to their primary open space functions. However, secondary functions of Open Space are considered as part of any proposals for BNG and GI policies in the draft Local Plan which should provide further opportunities for net gain both on-site and off-site.

The main green network sites or those closely related areas have been identified through a series of surveys over the last 30 years (see Section 5.4). There are inevitably some gaps in coverage where accessibility is difficult or where post-industrial sites have been left to naturally regenerate and become valuable over time. When a change of use is proposed on such sites, an evaluation of their location in context with the surrounding green network and any nationally or locally designated sites is therefore important, particularly when considering their biodiversity value and opportunities to improve connectivity.

This connectivity is essential to ensure that Leicester's biodiversity is maintained and increased to avoid fragmentation and facilitate species to disperse more freely throughout and reduce the risk of habitat fragmentation and population isolation.

If species cannot disperse, their isolation makes them vulnerable to further pressures of disturbance; it can lead to genetic isolation and loss of diversity within that species or population. In turn this reduces their ability to adapt and more vulnerable to disease, stress and environmental change.

Data derived from Phase 1 Habitat survey 2006-08 and updated assessments from habitat surveys carried out 2018-2020 which identify the main habitat types and areas classified as green space in Leicester.



3.1.5 LEICESTER'S BIODIVERSITY OPPORTUNITY SITES

Biodiversity Opportunity Mapping (BOM) is a process of desk-based assessment and surveys used to identify areas where there are good opportunities for habitat creation. Such mapping completed at a strategic level helps to make efficient use of resources and achieve the greatest positive conservation impact by delivering measurable enhancements on the ground.

Following on from the Green Infrastructure Strategy (2015 – 2025) and Local Action Project (2016) it is envisaged that the Biodiversity Opportunity Sites (BOS) will build on this existing work and use a Geographical Information System (GIS) approach to identify potential areas for expansion of key habitats. The main habitat types – woodland, grassland, wetland/open water and hedgerows will provide an evidence base in which to identify further opportunities and to improve and/or contribute to the Nature Recovery Network. This will provide a spatial representation of the BAP habitats in Leicester and the Opportunity Areas

Certain site conditions may in themselves make the sites more suitable for ecological enhancement and less so for development or other land use purposes. These areas will require agreement across council services or private landowners prior to their inclusion in a Biodiversity Opportunity register which will be reviewed and updated from time to time.

Examples where opportunities may exist include:

- Sites within the floodplain, "Flood hot-spots" or "Critical Drainage Areas "
- Former land-fill sites and/or contaminated land
- Former allotment sites
- Regularly maintained and species-poor amenity or under-used sports areas

The Biodiversity Opportunity Sites (BOS) do not represent a statutory designation or a constraint upon activities. Instead, they indicate areas where there are substantial opportunities to make positive changes for biodiversity and to further inform on conservation strategies and place-making to achieve social and economic objectives alongside a thriving natural environment. In this context, they can contribute to the Nature Recovery Network as sites that provide wildlife corridors and stepping stones that connect them.

Working in partnership at a national and local level will provide further opportunities for strategic planning to help facilitate the creation, enhancement and long-term management of priority habitats in Leicester and Leicestershire.

3.2 UK BAP PRIORITY HABITATS AND SPECIES

The UK BAP identified a list of priority habitats and species as being the most threatened and requiring conservation action. Although the original lists were created in 1995 and 1999, they have been updated several times and are still relevant within the current UK Post-2010 Biodiversity Framework which replaced the UK BAP in July 2012.

The number of priority habitats has increased from the original 49 to 65 and the number of priority species increased from less than 600 to 1,150.

Despite the new drivers and requirements under the UK Biodiversity Framework the lists remain an important reference as required under Sec 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This Act requires statutory authorities (including Local Authorities) to have regard to biodiversity in performing their statutory duties. The habitats and species under Section 41 are described more fully below.

3.2.1 UK AND LOCAL BAP PRIORITY HABITATS

The UK Biodiversity Action Plan identifies 65 priority habitats of particular national importance. Leicester contains 10 of these UK priority habitats together with localised urban habitats which take account of former industrial sites and a range of green spaces with different land uses. These are still recognised as valuable to wildlife. Table below provides a summary of comparison between the national and local priority terminology.

Numbe	UK BAP Priority Habitat	Leicester BAP Priority	Notes
1	Lowland Mixed Deciduous Woodland	Broadleaved Woodland	Exact equivalent between local and national habitat
2	Wet Woodland	Wet Woodland	Exact equivalent between local and national
3	Woodland Pasture and Parkland	Lowland Wood - Pasture and Parkland	Exact equivalent between local and national habitat
4	Hedgerows	Hedgerows	Partial equivalent. Local plan includes hedgerows of local value as well as ancient and
5		Mature Trees	Local habitat with no national equivalent although referenced in NPPF (2019)
6	1. Eutrophic Standing Water 2. Ponds	Eutrophic Standing Water	Local habitat combines two UK priority habitats
7		Floodplain Wetland	Local habitat with no national equivalent. Covers a range of new and pre-existing wetland
8	Reedbeds	Reedbed	Exact equivalent between local and national
9	Lowland Meadows	Natural Grassland	Equivalent between local and national habitat - but local includes lowland pasture
10	Lowland Calcareous	Calcareous Grassland	Exact equivalent between local and national
11		Parks and Open Spaces	Urban habitat - No national equivalent
12		Allotments	Urban habitat - No national equivalent
13		Churchyards &	Urban habitat - No national equivalent
14	Open Mosaic Habitats on Previously	Brownfield Sites	Partial equivalent
15		Buildings and Built Structures	No national equivalent. Covers man-made structures important for lichens and

3.2.2 LOCAL BAP PRIORITY HABITATS

Leicester is the largest city in the East Midlands with a diverse and multi-cultural population of approximately 350 000 (Census 2011). It is the 13th largest city in the UK which covers approximately 75 km². Whilst the LLR BAP (2016 – 2026) recognises Leicester as a generic Urban Habitat in recognition of the established road networks and built infrastructure, it does not identify the range and diversity of habitats and species present within this relatively small part of the county.

In Leicester there are a small number of irreplaceable habitats many of which have been designated as nationally or locally important sites (SSSIs, LWS or cLWS). Most of these areas were originally identified in the original Leicester Habitat Survey (1983 – 1986) which was one of the first of its kind in the country.

Further updates were added in the 1990s, followed by a systematic Phase 1 Habitat Survey of Leicester (2006-08) which identified and digitised specific habitats across the city and potential sites of wildlife value. These sites are now systematically reviewed on a rolling schedule to help inform on status/condition, appropriate management, site allocations and opportunities for off-setting and enhancements.

The irreplaceable habitats are:

- Ancient woodlands
- Mature or veteran trees
- Ancient and/or Species-rich hedgerows
- Species-rich neutral, Calcareous and floodplain meadow grassland
- River Soar-Grand Union Canal corridor

3.3 PROTECTED SPECIES

Certain rare, vulnerable or threatened species are given specific protection to sustain their populations. The species found in Leicester are protected mainly by national and European legislation (quite frequently by both) listed below:

- The Wildlife & Countryside Act 1981 (as amended)
- The Countryside & Rights of Way Act 2000 (CRoW Act 2000)
- The Conservation of Habitats and Species Regulations 2018
- The Protection of Badgers Act 1992

Intentional or reckless killing or injuring a species and/or disturbing or destroying their habitat can result in a severe fine and/or imprisonment which can run concurrently with each individual animal or plant impacted.

Species	Act	
Animals		
Badger	Protection of Badgers Act (1992)	
Bats	W&CA (1981 as amended), CROW (2000), Habitats & Species Regs (2017)	
Barn owl	W&CA (1981 as amended), CROW (2000)	
Birds (all wild)	W&CA (1981 as amended)	
Black redstart	W&CA (1981 as amended), CROW (2000)	
Great Crested Newt	W&CA (1981 as amended), CROW (2000), Habitats & Species Regs (2017)	
Kingfisher	W&CA (1981 as amended), CROW (2000)	
Little ringed plover	W&CA (1981 as amended), CROW (2000)	
Otter	W&CA (1981 as amended), CROW (2000), Habitats & Species Regs (2017)	
Water Vole	W&CA (1981 as amended), CROW (2000), Habitats & Species Regs (2017)	
Plants		
Bluebell	W&CA (1981 as amended)	

3.3.1 UK BAP PRIORITY SPECIES

UK BAP Species are listed as Section 41 Priority Species under the Natural Environment & Rural Communities Act 2006. Species recorded in Leicester are listed below.

Vertebrates	Common Name	Number of Records 2000 -
vertebrates	Common Name	2020
Amphibians and Reptiles		
Anguis fragilis	Slow Worm	12
Bufo bufo	Common Toad	175
Triturus cristatus	Great Crested Newt	117
Birds		
Alauda arvensis	Skylark	142
Carduelis cannabina	Linnet	45
Coccothraustes coccothraustes	Hawfinch	3
Cuculus canorus	Common Cuckoo	35
Emberiza citrinella	Yellowhammer	86
Emberiza shcoeniclus	Reed Bunting	541
Miliaria calandra	Corn Bunting	2
Muscicapa striata	Spotted Flycatcher	80
Passer montanus	Tree Sparrow	38
Poecile montanus	Willow Tit	48
Poecile palustris	Marsh Tit	15
Passer domesticus	House Sparrow	720
Pyrrhula pyrrhula	Bullfinch	658
Streptopelia turtur	Turtle Dove	4
Sturnus vulgaris subsp. vulgaris	Common Starling	654
Turdus philomelos	Song Thrush	1211
Mammals		
Arvicola amphibius	Water Vole	22
Erinaceus europaeus	West European Hedgehog	774
Lepus europaeus	Brown Hare	32
Lutra lutra	Otter	119
Micromys minutus	Harvest Mouse	7
Nyctalus noctula	Noctule Bat	114
Plecotus auritus	Brown Long-eared Bat	76
Pipistrelllus pygmaeus	Soprano Pipistrelle	84
Higher Plants		
Vascular Plants		
Potamogeton compressus	Grass-wrack Pondweed	
Campanula patula	Spreading Bellflower	
Euphrasia anglica	Glandular Eyebright	
Oenanthe fistulosa	Tubular Water-dropwort	
Fungi		
Buglossoporus pulvinus = Piptoporus	Oak Polypore	
quercinus	Can rolypole	

3.3.2 LOCAL BAP PRIORITY SPECIES

A recent update of the LLR BAP 2016 – 2026 has a total of 16 Species Action Plans. Those species of flora and fauna found in the city are prioritised for conservation and reference should be made to the LLR BAP for relevant actions indicated below.

There are also important species associated with urban environments present in Leicester, but are not within the LLR BAP. These include birds such as the Black redstart, Peregrine and Swifts which are largely associated with buildings and the built environment, together with the West European hedgehog frequently found in gardens and parks in densely built-up areas.

The two BAPs also differ in their actions to conserve these species due to the range of habitats available at the strategic level compared to those found in Leicester with its large urban area, built environment and more formal areas of green space. The table shows the species relevant to Leicester and if an associated Species Action Plan is available in the LLR BAP.

Species	Leicester BAP	LLR BAP
Birds		
Barn Owl	No – but relevant in limited habitat	Refer to BAP
Black redstart	Yes – relevant actions for City	No
Peregrine falcon	Yes – relevant actions for City	No
Sand martin	No – but relevant in limited habitat	Refer to BAP
Swifts, Swallows and House	Yes – relevant actions for City	Yes – relevant actions for both
Mammals		
All Bats	Yes – relevant actions for some bat	Yes – relevant actions for both
Hedgehog	Yes – relevant actions for City	No
Otter	Yes – relevant actions for City	Yes – relevant actions for both
Water vole	Yes – relevant actions for City	Yes – relevant actions for both
Plants		
Black poplar	Yes – relevant actions for City	Yes – relevant actions for both

3.3.3 LEICESTERSHIRE RED DATA BOOK SPECIES

The Leicestershire Red Data Books (RDB) were produced in partnership with Leicestershire County Council Museums Arts and Records Service (LMARS) in the 1990s. They identified the types of plants and animals most at risk and considered endangered and in serious decline from changes in agriculture, quarrying and development. A core list of species considered "rare" in the county or Vice County (VC) 55 checklist totalled almost 1000 species. Some of check-lists and RDBs have been updated for certain species groups.

The Red data books have been compiled by local specialists and updated editions have been edited by the LRERC and refereed by a panel of specialists. Evidence of established populations differ between species groups, but generally the following apply:

Flowering Plants Recorded within the previous 30 years and if the species has been searched for and not

found in 5 consecutive surveys over a period of 5 years or more, it cannot be used to

designate a LWS.

Invertebrates, Fish Recorded in their breeding, roosting, feeding or hibernation habitat in the previous 20

years

Mammals, Reptiles Recorded in their breeding, roosting, feeding or hibernation habitat in the previous 20

/ears

Amphibians Recorded in their breeding, roosting, feeding or hibernation habitat in the previous 20

years. They should be represented by populations as listed in the species assemblage

criteria

Birds Recorded breeding or roosting consistently or using the site consistently on passage or

during the winter

3.4 HABITAT AND SPECIES ACTION PLANS

Leicester's Habitat and Species Action Plans (HAPs and SAPs) have been agreed in consultation and discussion with stakeholders and partners involved in nature conservation in the City.

Specific habitats and species together with actions are described in Part 2 of Leicester's BAP. The habitats include a number of irreplaceable and also generic habitats such as Parks and Allotments managed for wildlife and to enhance biodiversity.

Sites which include Churchyards and Cemeteries, domestic gardens and privately owned green space are all recognised for their biodiversity value, but do not warrant a separate Action Plan. Actions for these sites are likely to be included in Community-based actions taken by individuals rather than that of the local authority.

Naturally vegetated areas which may be common and widespread within an urban context are not identified as particular priority habitats or within Habitat Action Plans, but should nevertheless not go unrecognised. Whilst limiting opportunities for anti-social behaviour and keeping sites safe with open and clear routes that can be easily surveilled, sites that contain areas of scrub with associated species such as Bramble, Blackthorn, Dog-rose and tall herbs such as Willow herbs, Goosefoot and Cow Parsley are especially important for supporting species such as pollinating insects, nesting birds – especially Starling roosts, small mammals and reptiles.

Across the city, these sites occur frequently and provide a mechanism of dispersal that fits into the wider green network. They should be considered in relation to the species and significant biodiversity they support in a local context. Even small or low distinctive habitat patches may be important if they are able to be part of a wider Nature Recovery Network or are in a desirable location that will remain



Chapter 4.0 Biodiversity and People



4.0 Biodiversity and People

4.1 HISTORY OF ENGAGEMENT

The benefits of working in partnership to achieve a greater end result and get more people involved in a common goal to raise awareness of the importance of conserving biodiversity are well recognised and increase the likelihood of success

The history of engagement has evolved from a commitment at an international, national and local level for the last 20 years very similar to the commitment to conserve and enhance our habitats and species. A brief summary is provided to set the context. Whilst it is recognised that the ability to achieve many of the actions and objectives set out in the Habitat and Species Action Plans will involve public engagement and raising awareness, the international and national recognition of this requirement sets the wider role of engagement and awareness raising at all levels and so is included in Part 1 of the Plan.

4.1.1 INTERNATIONAL ENGAGEMENT

The Strategic Plan for Biodiversity 2011–2020 agreed at the Convention on Biodiversity in Japan (2011) refers to specific goals and actions to be achieved by 2020. At the forefront of this was a commitment to raise awareness and to get people engaged in the process of understanding the importance of biodiversity at all levels of government and society. Two specific goals identified this need

Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;

Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building

Supporting targets identified the significance of public engagement stipulated:

Goal A: Target 1 – By 2020 at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably;

Goal A: Target 2 – By 2020, at the latest, biodiversity values have been integrated into national and local development ... and planning processes and are being incorporated into national accounting – and reporting systems;

Goal E: Target 17 – By 2015 each Party has developed, adopted as a policy instrument and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan; **Goal E: Target 19 –** By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

4.1.2 NATIONAL ENGAGEMENT

In 2011 the UK BAP was replaced by 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' which formed part of the UK Post-2010 Biodiversity Framework. This set out new country-level strategies for England, Scotland, Northern Ireland and Wales up to 2020. This included reference to the Aichi targets and identified two key priority actions for engagement and awareness.

- i) Putting people at the heart of biodiversity policy (Engagement). The strategy recognised that "It is crucial to engage more people in biodiversity issues so that they personally value biodiversity and know what they can do to help. Civil society organisations play a frontline role, directly engaging and enthusing the public about biodiversity. We will work with them to engage more people and empower them to make a difference".
- **ii) Improving our knowledge (Awareness raising)** The strategy recognised the importance of providing a good evidence base to understand the status and trends in biodiversity and to work with a wide biodiversity partnership to deliver the strategy.

A Green Future: Our 25 Year Plan to Improve the Environment (Defra 2018) also contains an action to "Connect people with the environment to improve health and wellbeing".

The first target although perhaps not directly related to biodiversity, is particularly important in considering the short and longer term impacts of Covid-19 by "Helping people improve their health and wellbeing by using green spaces" and specifically "promoting health and wellbeing through the natural environment." Additional targets include "Encouraging children to be close to nature, in and out of school" by:

- i) Helping primary schools create nature-friendly grounds; and ii) Supporting pupil contact with local natural spaces
- "Green our towns and cities" by:
- i) Creating more green infrastructure and ii) planting more trees in and around our towns and cities; and "Making 2019 a Year of Action for the environment" by:
- i) Helping children and young people from all backgrounds to engage with nature and improve the environment; and ii) Supporting the 2019 Year of Green Action

Evidence from studies and research has shown the value that nature brings to people, providing powerful psychological, educational and health benefits which allow people to lead happier and healthier lives.

4.1.3 LOCAL ENGAGEMENT

Leicester has a strong legacy of encouraging public participation in biodiversity management and nature conservation. Over the last 30 years the council has worked closely with other conservation organisations such as Environ, Groundwork, Leicestershire & Rutland Wildlife Trust (LRWT), NatureSpot and The Conservation Volunteers (TCV) to encourage community participation in local conservation projects and coordinate volunteers across the city. The council has also set up its own Leicester Environmental Volunteers (LEV) and hosts a varied programme of conservation work on its most ecologically valuable sites working with volunteers from local communities.

The previous BAP (2011-2021) set out specific aims to raise awareness of biodiversity in Leicester and to encourage public participation. Much of this focus was on getting people involved in voluntary work and making a physical contribution to improving areas by, for example, putting up bird and bat boxes, making Insect hotels, removing scrub from meadow and grassland areas, tree-planting and managing woodlands. Many volunteers took part in tasks on organised Environment Days at LNRs and parks. Friends of Groups (FOGs) and Park User Groups (PUGs) have also been set up with the help of conservation organisations or the council to help support local sites close to residential areas. Many are associated with nature reserves and parks. Examples include Aylestone Meadows Appreciation Society (AMAS), Knighton Wild, Highway Spinney FoG and Castle Hill Country Park FoG.

Local projects such as the Urban Buzz Project, a partnership between the council and Buglife, focussed on the conservation of pollinators and trained volunteers to monitor and survey sites. Awareness raising of the importance of pollinators and the habitats needed to conserve their populations was a major part of the project. Engaging with the local authority and private landowners on best practice to manage areas effectively, implement Plans and Strategies and work with partners was key to the success of this project.

The Swift Project Partnership has also encouraged public engagement and awareness raising at various levels. People have been encouraged to send in sightings of Swifts and where they nest; planning approvals frequently require the installation of swift bricks and boxes to help conserve this species in specific parts of the city; information leaflets have been produced by partners and made available on websites to further inform planners, developers, businesses and householders of what they can do to help this particular species.

Similarly, the Hedgehog Project engaged with the public by asking people if hedgehogs visited their gardens and how they could help them. Partners involved in Hedgehog Conservation encourage people to report sightings or take in rescued hedgehogs and release them back into safe environments. The council and record centre record species presence and this helps to inform on potential constraints to projects and opportunities for habitat creation and installation of boxes within development schemes.

Leicester is also part of the Eco-Schools global programme aimed at raising awareness of environmental issues and empowering young people to drive change. The councils Environment Education Co-ordinator and the Forest Schools programme led by organisations such as The Wildlife Trust and Woodland Trust have encouraged schools to design and create their own nature areas, learn about the wildlife that uses them and completed conservation tasks in nearby parks to help the wider environment.

The council and numerous partners have worked hard to engage people and make them aware of the wildlife on their doorstep. Encouraging people to record wildlife in the city has taken place through a series of annual BioBlitz events that have been run across the City over the last ten years alongside specialists and BAP partners. This has resulted in over 10 000 people taking part and finding out about the wildlife that lives on their doorstep and has helped to record nearly 5000 plants and animals in Leicester. The collected data are submitted to the Leicestershire & Rutland Environmental Resource Centre (LRERC) to help inform on how best to manage sites to help conserve or increase populations of species that may be under threat.

4.2 ACTIONS TO ENCOURAGE ENGAGEMENT

To engage people in environmental issues such as biodiversity there is a need for people to connect with nature with a clear and compelling message about its importance and what we risk in depleting it. The council continues to be committed to protecting and enhancing local biodiversity and work with BAP partners to help local communities to appreciate and recognise the value their local space for wildlife and to get involved. Encouraging people to visit these areas by making them safe, accessible and attractive is advocated in a number of Strategies and Plans – helping them to stay that way is a big part of how the community can help.

Whilst Part 2 of this Plan concentrates on the specific actions that can be achieved to conserve and enhance certain habitats and associated species, each Habitat or Species Action Plan also includes specific actions to encourage people to get involved at a local level. The Action Plans also include awareness raising at a strategic level and ways people can get involved. Although there is undoubtedly some crossover between awareness raising and getting people involved, the council and its BAP partners are committed to facilitating the following actions:

4.2.1 AWARENESS RAISING

There is a recognised need to raise awareness of biodiversity and nature conservation to everyone living, working or visiting Leicester and the surrounds. The people involved include partner organisations, local government officials, council services, schools, students as well as local communities, action groups and visitors.

Publicity and Marketing

- Give the BAP and other associated documents a readily identified branding that people understand and know what it represents
- Publish the annual "Making Wildlife Count" report to raise awareness of local projects completed with local people in and around Leicester and how they can get involved in future projects;
- Provide a quarterly newsletter of local projects, training, events and how people can get involved to be made available on the council and partner websites and local distribution to public places;

Project Planning, Design and Delivery

- Maximise publicity before, during and on completion of green projects especially where multiple partners are involved:
- Promote good practice of green projects and case studies on the council's and BAP partners websites and/or appropriate publications to help inform on sites where wildlife is thriving as a result of habitat creation and/or good management;

Information

- Review and update the council webpages with suggestions on how individuals, local businesses, schools and local landowners can contribute towards improving our natural environment;
- Set-up links and virtual partnerships with other leading cities to promote biodiversity and good practice e.g. London, Sheffield, Bristol, Manchester, Birmingham
- Engage with other Service areas which have a green remit to increase opportunities for biodiversity enhancement e.g. Allotments and Food Plan, Health & Well-being and association with visiting green space

Research, Monitoring and Data Collation

- Work with existing recorder groups to increase membership and to identify sites to survey to increase our knowledge and understanding;
- Update and increase the number of "Wild Places" on the local NatureSpot website to encourage people to signup and record wildlife in their local area;
- Work with Universities to use Leicester as a case study area research related to biodiversity issues e.g. impacts
 on biodiversity from human disturbance, adaptation of wildlife in cities, climate change on species populations/
 dispersal etc

Training

- Organise training seminars for Service areas and Boards to update on changing legislation and statutory responsibilities
- Raise awareness of wildlife and biodiversity issues across council service areas by training individuals/groups and creating Biodiversity champions;
- Organise training days on conservation management of grassland, wetlands/ponds, trees/woodlands for council and BAP partners

Events

- Set up and run a number of organised displays each year to coincide with national species or conservation days to raise awareness of how people can be involved with BAP partners;
- Investigate potential for hosting regional/national urban biodiversity conference/seminar to share best practice
 working with partners such as Natural England and the Wildlife Trust to facilitate;

Schools

- Work more closely with Schools and the Biodiversity agenda by encouraging schools to participate in national and international projects e.g. Earthwatch and to identify key themes that are relevant to the national curriculum and promoted each year – link in with Climate Change agenda where possible;
- Set-up Biodiversity-school hubs around Leicester to promote good practice and training with key schools acting
 as facilitator for others to visit and share good practice/teaching aimed and students and parents;

4.2.2 PARTICIPATION

A key part of the Plan is to involve people with nature conservation and wildlife so that they are encouraged to get involved and can see how the diversity of flora and fauna may benefit from their actions. The council and BAP partners will find new and varied ways of helping people to engage with biodiversity in the city.

Partnership Working

 Continue to be an active partner in key partnerships involved in the delivery of green infrastructure and biodiversity projects in Leicester e.g. Soar & GUC Partnership, UoL Biodiversity Working Group, Soar Catchment Partnership,

Volunteers

- Continue to expand the Leicester Environment Volunteers (LEV) network of volunteering programmes and groups involved with works on our nature reserves, local wildlife sites and country parks;
- Work closely with other conservation volunteer organisations such as TCV and the Wildlife Trust to maximise volunteer involvement across our nature areas;
- Seek out opportunities and grants that support voluntary and community groups with projects which support and assist protecting the natural environment;

Research, Monitoring and Data Recording

- Work with local Universities to encourage their involvement on sites for local research, teaching purposes, conservation volunteer tasks both on their own land and the wider areas of green space in Leicester;
- Set-up Citizen Science monitoring projects to get people involved in monitoring changes in flora and fauna across a range of sites and different habitats

Events

- Organise Citizen-science based events to record wildlife across sites with partners and involve local schools and community recoding alongside naturalists and specialists;
- Work with Leicestershire & Rutland Wildlife Trust in their "30 Days Wild" or similar events to encourage activities and run events associated with nature
- Link with other LCC services (Walking and Cycling team) and external services to provide guided walks for people to learn about wildlife in local green spaces and encourage them to visit them more frequently for leisure or to connect to other parts of the city on short utility journeys.



Chapter 5.0 Biodiversity - Planning and regulator



5.0 Biodiversity - Planning and regulator

This section considers the duties and responsibilities of statutory authorities in having regard to biodiversity. In addition to any wildlife legislation specifically aimed at protecting and conserving designated sites, habitats and species (see Section 3) there are other responsibilities for statutory authorities to consider referred to in this section.

5.1 STATUTORY DUTY

The Natural Environment and Rural Communities Act 2006 (NERC) Sec 40 provides that any public body or statutory undertaker in England and Wales must have regard to the purpose of conservation of biological diversity in the exercise of their functions. The intention is to help ensure that biodiversity becomes an integral consideration in the development of policies, and decisions of public bodies work with the grain of nature and not against it.

The government has continued to support the Priority Habitat and Species Lists first identified in the 1994/95 UK BAP and updated on several occasions since. Those habitats and species most relevant and found in Leicester are described in Section 3 and remain a material consideration in planning decisions.

The main area in which the council and other statutory authorities such as the Environment Agency and Natural England have a role in conserving biodiversity in the city is:

- Developing and influencing local policies and strategies
- Planning and development control
- Owning and managing land and waterways
- Procurement
- Education and Awareness Raising

Leicester's Parks, Planning. Flooding, Environmental, Sustainability and Education Services have already gone along way, but the city council recognises the need to integrate biodiversity considerations into other service areas and functions. Some of the specific land uses such as Parks, Allotments and Cemeteries have been highlighted in the Habitat Action Plans to identify opportunities that can be achieved.

The council and other BAP partners sit on the conservation boards of various Partnerships of which statutory authorities participate allowing joint decision-making in fulfilling their duties. Where joint responsibility across several statutory authorities such as our waterways exists, it is particularly important that organisations work together to optimise opportunities for biodiversity enhancements and the safeguarding and recovery of species.

5.2 NATIONAL POLICY

The 25-Year Environment Plan (2018) sets out the key policy requirements to safeguard habitats and species across England, to raise awareness of biodiversity trends and encourage participation to help with the recovery of habitats and species as well as help with health and well-being (see Section 2 and Part 2 Section 1). The National Planning Policy Framework (NPPF) 2019 now contains polices to help implement the key aims set out in the 25-year Plan.

Recent and significant changes to the National Planning Policy Framework (NPPF) 2019 now stipulate that Planning policies and decisions should **contribute to and enhance the natural and local environment.** This requires that sites of biodiversity value should be identified and protected in the development plan.

There is also emphasis on providing **net gains for biodiversity,** including the establishment of **coherent ecological networks** that are more resilient to current and future pressures. These networks of habitats and green infrastructure should be maintained and enhanced at a landscape or catchment-scale.

The NPPF goes on to state that plans to protect and enhance biodiversity (and geo-diversity) should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including designated sites at an international, national and local level – and locally designated sites of importance for biodiversity (such as LWS); wildlife corridors and stepping stones that connect them.

In order to address the above and promote the conservation, restoration and enhancements of priority habitats, ecological networks and the protection and recovery of protected species; it is necessary to pursue opportunities to secure measurable net gains in biodiversity.

Local Planning Authorities are asked to implement a Mitigation Hierarchy in considering the impacts on biodiversity. Steps must first be taken to avoid any likely significant impact to biodiversity. If this is not possible, it will be necessary to show how the unavoidable impacts can be **mitigated** by taking steps on site to minimise the duration, intensity and/or extent of impacts that cannot be avoided. Importantly, the framework sets out that planning permission should be refused if significant harm cannot be avoided, adequately mitigated, or, as a last resort, **compensated** for.

Where all on-site mitigation options have been exhausted then compensation off-site should be considered which could involve major habitat restoration or creation to make up for the habitat lost to development and in doing so contribute to the Nature Recovery Network (see Delivering Biodiversity Net Gain)

5.3 LOCAL POLICY - LEICESTER LOCAL PLAN

The Leicester Local Plan (LLP) is currently under review during which public consultation will take place prior to its adoption. Leicester's new Local Plan will set out provision for additional homes, schools and employment land in the city as well as how the sites of biodiversity value will be protected from development and ecological networks created and maintained (referenced in the LLP Natural Environment chapter).

This provides an opportunity for the BAP to be an important and relevant source of evidence and information and to focus actions to contribute to habitat creation/restoration and species recovery whilst achieving a **net gain in biodiversity** across Leicester. Those benefits associated with bio-diverse green space will also support well-being, recreation and social inclusion by contributing to all of the Council's core priorities.

The Council has developed a series of policies which will be adopted subject to consultation and examination, but which provisionally include a section on the Natural Environment and policies on Biodiversity, Biodiversity Net Gain and Green Infrastructure.

5.3.1 STRATEGIC APPROACH TO BIODIVERSITY

The council and its BAP partners advocate the protection and enhancement for biodiversity within Leicester through a strategic approach to deliver sustainable development. It considers the wider approach to incorporate Green/Blue Infrastructure and aims to develop a comprehensive network of multi-functional green space that will provide benefits to people living, working and visiting Leicester.

Areas of connected green space can be created, protected and enhanced which will benefit biodiversity across the city. This particularly identifies the need to ensure existing wildlife sites are adequately protected; improving connectivity between habitats within areas of strong biodiversity and ensuring areas of lower value are better connected within the wider biodiversity/green network.

The LLP will contribute to the conservation and enhancement of biodiversity in the city in the following areas:

- Ensuring mechanisms are in place to assess the impacts of new development at a local and landscape level by
 evaluating their biodiversity impact on species, habitat quality and connectivity to help better inform development
 decisions and secure mitigation and enhancement where appropriate;
- Evaluating opportunities and formalising a process for Biodiversity off-setting through the development of a system for biodiversity accounting to achieve net gain in planning applications and its adoption and implementation into the planning and development process;
- Developing and securing biodiversity enhancement projects through s106 planning obligations or similar mechanisms from appropriate development to off-set any loss of biodiversity which cannot be avoided or mitigated on site.
- Assessing and recording existing designated sites and Priority Habitats that form part of the green network and
 to asses sand identify sites where biodiversity opportunities may be present to restore or enhance habitats and
 contribute to the overall Nature Recovery Network within Leicester and its surrounds;
- Implementation of Leicester's Green Infrastructure Strategy (2015 2025) and BAP action plans to comply with LLP Natural Environment policies relating to Green Infrastructure, Biodiversity and Biodiversity Net Gain.

5.3.2 DELIVERING BIODIVERSITY NET GAIN

The Environment Bill was introduced to parliament in October 2019 to support the delivery of the 25 Year Environmental Plan (2018) – see section 2.2.1 – and sets out the key environmental responsibilities of the government which had previously been held by the European Union (EU). This includes a framework by which Biodiversity Net Gain (BNG) can be delivered by local authorities to achieve a net gain in biodiversity from development that leaves it in a better state than before. The principles set out to encourage developers to provide an increase in appropriate natural habitat and ecological features over and above that being impacted. In doing so, the current loss of biodiversity across the country is hoped to be halted and ecological networks restored.

BNG still relies on the principles of the mitigation hierarchy to avoid, mitigate and compensate for biodiversity losses, but provides opportunities to enhance or restore key habitats or to create new habitats and contribute further to the ecological network. BNG will take place on Priority sites already within the green network or on new sites identified as Biodiversity Opportunity Sites (BOS) and contribute to the local Nature Recovery Network. The sites may be on publically or privately owned land, generally of poor or declining ecological value and preferably strategically located to contribute to and enhance connectivity and permeability of sites across the city.

5.4 SURVEY, MONITOR AND REVIEW

Having a strong evidence base and sound knowledge of our biodiversity resource is essential for good planning. This helps to develop policies based on robust evidence, to assist with decision-making through development control and to determine how the Nature Recovery Network can enhance the existing green network. This was seen as a key requirement in the 2011 BAP framework Biodiversity 2020: A strategy for England's wildlife and ecosystem services' and Target 17 of the Aichi Targets (See Section 4.1.2) and has been updated in the 25-year Plan.

Although still to be enacted, the Environment Bill refers to the formation of the Office for Environmental Protection (OEP) responsible for monitoring progress in improving the natural environment through the production of Local Nature Recovery Strategies (LNRSs). The Bill proposes a series of measures that will try to secure a systematic and consistent approach in securing biodiversity in England. It is also essential as a way of monitoring our impacts on biodiversity and to identify indicators that can be used to show the status or condition of sites and the health of fauna they support.

5.4.1 BIODIVERSITY CONDITION

Leicester has a legacy of good environmental data recording which dates back to the 1980s when organisations such as the Wildlife Trust and Environ had responsibility for managing green sites across the city and monitoring their condition. The former A* graded sites later became Sites of Importance for Nature Conservation (SINCs), and were later re-named as Local Wildlife Sites (LWS).

The majority of green space in Leicester was later assessed and broad habitat categories assigned using the Joint Nature Conservation Council (JNCC) Phase 1 Habitat Mapping methodology and aerial photograph interpretation during 2006-08. Target notes were also made of particular features to record diversity of vegetation and species presence through observations and tracks or field signs noted during the survey. These target notes have only a limited value for a short period due to the likelihood of changes occurring on the ground as sites are developed, land use changes or different management regimes are used.

Since 2010 a systematic process of survey, monitor and review of designated sites along with the wider natural environment has been undertaken to keep the Phase 1 data relevant for Planning purposes and to allow for review and assessment of species data to help prioritise Plans, Projects and Strategies.

The changes have been made using a GIS mapping system to show the different habitat types, designations and overlaid with Species presence. A thorough review of the data using this system along with other works associated with mapping of the Green/Blue Infrastructure will more fully inform on the Biodiversity Opportunity Sites (BOS) and contributions necessary to achieve those habitats deemed appropriate.

5.4.2 INFORMATION AND DATA

Leicestershire & Rutland Environmental Resource Centre (LRERC) is a major partner of Leicester City Council that helps to collate, evaluate and share biodiversity information. A data exchange has been agreed with them and this information is regularly shared which provides updates on surveys undertaken in our parks, nature reserves and other designated sites as well as ensuring that all ecological surveys submitted as part of the planning processes are shared with LRERC.

5.4.3 SITE ASSESSMENTS AND EVALUATION

5.4.3.1 LOCAL WILDLIFE SITE SURVEYS

The quality and extent of Leicester's Local Wildlife Sites (LWS) is assessed annually by the city council as part of a wider monitoring exercise connected to the annual Environment Statement produced by the council and the Single-Status reporting to central government. There are a number of assessment criteria used based on the diversity of flora, size and quality of habitat and its general condition such as whether it is improving or deteriorating due to management and other pressures on land use. Where sites have been designated for certain species, their presence/absence and any increase or decrease in their population is considered in the review and evaluation.

The survey data are retained by the city council in local reports and schedules to inform on the annual Environment Statement. These records are also regularly collated and forwarded to the LRERC and they provide an evidence base for the Local Plan review and Site Allocation process.

Habitat and Species data are collated through a number of means:

- Qualified ecologists undertaking Phase 1 Habitat and Species Surveys
- Ecology surveys completed as part of the planning process and submitted to the Local Planning Authority (LPA)
- Ecology surveys submitted for licence applications to undertake works impacting on Protected Species
- Specialists, Recorders and Naturalists (groups and individuals) undertaking surveys in their own specialism
- Citizen Science projects and events where local people collect wildlife data which is then verified by specialists
- Ad-hoc data collected from the public who report sightings and which is verified by specialists

5.4.3.2 BIODIVERISTY NET GAIN MONITORING

The Environment Bill refers to the formation of the Office for Environmental Protection (OEP) responsible for monitoring progress in improving the natural environment through the production of Local Nature Recovery Strategies (LNRSs)

At the time of writin, the OEP may also be responsible for setting targets that relate to people's enjoyment of the natural environment, access and use as well as specifically on the delivery of habitat creation and its appropriate management in the longer-term. Such targets will specify an objectively measurable standard to be achieved by set dates.

5.5 LEICESTER'S STRATEGIES AND PLANS

The Council has many strategies and plans (See Section 2.3) which set out the aims and objectives of the council and its partners to maximise sustainability. They are generally in place for a three, five or 10 year period and often have targets and actions attached to monitoring progress. When subject to review, the council will update plans and reference how biodiversity can be implemented into the main stream functions of the different Service areas responsible for their plans. In the meantime, the council and BAP partners will continue to work closely to advise and implement biodiversity in the early stages of any project and to maximise any enhancements wherever possible.

5.6 PLANNING, POLICY AND LEGISLATION

The following objectives relate specifically to the implementation of Planning, Policy and Legislation and have been identified by the city council and BAP partners as helping to achieve the vision for biodiversity in Leicester whilst also helping to contribute to towards the national outcomes for biodiversity.

The council as statutory authority will be responsible for monitoring performance of biodiversity net gain, the creation or restoration of habitats and species recovery which will be subject to further information from central government and the newly formed OEP. Whilst some of the objectives set will require further plans to be developed to secure a process, many others are under way and in progress. It is also expected that the BAP partners will be assisted by many other organisations in Leicester and Leicestershire who will help in achieving these objectives.

Aims

- Create, conserve and enhance all habitats wherever possible and increase the biodiversity value of designated and/or priority habitats back to favourable status
- Conserve protected and priority species by highlighting threats and issues, agree targets and actions to address them and help with their recovery
- Promote biodiversity conservation as an essential element of sustainable development and adaptation to climate

Objective	Action	Achieve by	Lead
1.1 Incorporate legislation, policies and guidance into Local Plan	Encourage and support adoption of the Local Plan with relevant polices on biodiversity and BNG to promote	2021-22	LCC - Planning
1.2 Policies and Strategies to conserve, restore or enhance	Implement mitigation hierarchy to avoid loss of priority habitats	On-going	LCC
1.3 LCC environmental strategies and plans support biodiversity and are fit for purpose	Review and agree updates in revised documents and where necessary provide addendum to existing		
	Review to ensure compliance and that biodiversity measure are incorporated into sustainable	On-going	LCC
1.4 Comply with all updated UK/EU and international legislation post-Brexit	Implement changes in statutory decision making e.g. Planning applications and policy where	On-going	LCC – Nat Con

Create nature recovery networks by identifying, creating and improving green corridors and by creating and enhancing ecological connectivity

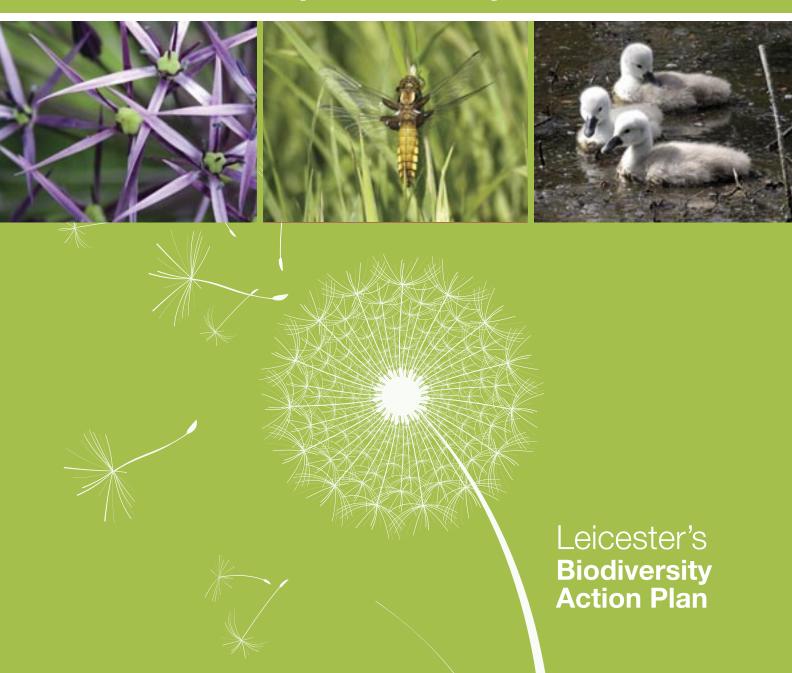
Objective	Action	Achieve by	Lead
1.5 Create a Nature Recovery Network map	Survey and map green network of designated sites, BOS and priority habitats for creation or restoration that will improve connectivity and	June/July 2021	LCC – Nat Con
	Encourage targeted habitat creation within BOS and NRN	On-going	LCC - Planning
	Promote BOS in the planning system to guide developers to the best		
	Promote the use of BOS when guiding nature conservation effort	On-going	LCC – Nat

Seek out ways to commit landowners to a binding agreement to secure the long-term sustainability where wildliferich sites have been created or restored.

Objective	Action	Achieve by	Lead
1.6 Secure an implementable process for biodiversity offsetting	Consider all options for agreement and legal processes to secure payments and long-term	2021/22	LCC - Planning



Chapter 6.0 Acronyms



6.0 Acronyms

BAP Biodiversity Action Plan

BES Biodiversity Enhancement Site

BOM Biodiversity Opportunity Mapping

BOS Biodiversity Opportunity Sites

CDM Community Development Team

CROW Countryside & Rights of Way

CRT Canal & River Trust

EA Environment Agency

ELMS Environmental Land Management Scheme

EU European Union

FOGS Friends of Groups

GI Green Infrastructure

GUC Grand Union Canal

HLS Higher Level Stewardship

INNS Invasive Non-native Species

JNCC Joint Nature Conservancy Council

Leics CC Leicestershire County Council

LCC Leicester City Council

LEV Leicester Environmental Volunteers

LLEP Leicestershire Local Enterprise Partnership

LLR Leicester, Leicestershire & Rutland

LNP Local Nature Partnership

LNR Local Nature Reserve

LNRS Local Nature Recovery Strategies

LPA Local Planning Authority

LROS Leicestershire & Rutland Ornithological Society

LSAP Leicester Sustainability Action Plan

LRWT Leicestershire and Rutland Wildlife Trust

LWS Local Wildlife Site

NCO Nature Conservation Officer

NE Natural England

NIA Natural Improvement AreaPDT Parks Development TeamPGM Parks Grounds Maintenance

PUGS Park User Groups

SLA Service Level AgreementSPP Swift Partnership Project

SSSI Sites of Special Scientific Interest

SUDS Sustainable Urban Drainage Schemes



Chapter 7.0 Glossary



7.0 Glossary

106 Agreements: Legal agreements or undertakings under section 106 of the Town and Country Planning Act that ensure developers contribute towards infrastructure and services necessary to facilitate proposed development - also known as Planning Obligations.

Accessible Natural Green space Standards (ANGSt): Standards set to recognise the importance of nature in an urban context to improve the quality of people's lives and people's entitlement to have access to, and experience of nature near to where they live.

Backland Development: Development on land that lies to the rear of an existing property that often, but not in all cases, fronts a road. It usually applies to housing and is normally associated with small-scale development,. Access can be from the road serving the original properties from the front or from the side

Biodiversity Enhancement Sites (BES): Sites of wildlife value that do not meet the LWS criteria, but have potential to be improved to enhance their biodiversity value. The sites usually provide a function to protect sites as a buffer to a LNR or LWS or link areas of green space by providing a corridor to assist with dispersal Blue Infrastructure: Describes riverine and coastal environments with a green infrastructure network.

Blue Links: Fulfil the same functions as green links but their proximity to floodplain and wetland may require different approaches to design and management

Capital Costs: Cost for investment activities e.g. implementation of projects (including construction and enabling clearance and demolition or remediation works)

Climate Change Adaptation: The ability of a place to adapt to both extreme weather events and long-term changes to climate patterns

Community Infrastructure Levy (CIL): A planning charge introduced by the Government through the Planning Act 2008, which allows local authorities to raise funds from developments to pay for the infrastructure that is needed as a result

Community Strategies: District and county authorities have a duty to prepare Community Strategies under the Local Government Act 2000. These identify the needs and aspirations of local communities and opportunities for realising them. Community Strategies are prepared by LSPs where established. Constraints Map: Map showing the location of important resources and receptors that may form constraints to development.

Development Plan Document (DPD): Forms part of the statutory development plan/Local Plan which can include Core Strategy, area wide policies, topic policies, area action plans, proposals map and site allocations but would not include Statement of Community Involvement or Supplementary Planning Documents.

Ecological Footprint: A measure of how much productive land and water an individual, a city, a country or humanity requires to produce the resources it consumes and to absorb the waste it generates, using prevailing technology. The land could be anywhere in the world, is measured in global hectares (gha) and always refers to one year. If the footprint refers to one person the unit is given in global hectares per capita (gha/cap).

Ecological Network: Identification of key wildlife corridors and opportunities for connectivity/strategic links in implementing/delivering BAP targets and to assist in reversing habitat fragmentation

Ecosystem Services: Essential services and benefits derived from a fully functioning natural environment, including management of basic resources e.g. water, sequestration of carbon

Geographical Information System (GIS): Computerised database of geographical information that can easily be updated and manipulated

Green Infrastructure: Network of natural environmental components and green and blue spaces that lies within and adjacent to the City of Leicester and its administrative boundary and which provides multiple social, economic and environmental benefits. In the same way that the transport infrastructure is made up of a network of roads, railways, airports etc. green infrastructure has its own physical components, including parks, rivers, street trees and moorland.

Green Infrastructure Study: A report which assimilates baseline information for GI for a given location e.g. local standards, initiatives and establishment of environmental character; It may also investigate deficiency and needs based on projected growth and identify opportunities.

Green Infrastructure Strategy: Builds on a GI study approach to develop a GI hierarchy and identify/prioritise and phase projects through an Action Plan or Implementation Strategy; It provides information on capital and revenue costs, management needs, funding streams and delivery partners, but may vary with the scale of the strategy. This often forms the evidence base for the SPD/AAP

Green Network: The linking together of natural, semi-natural and man-made open spaces to create an interconnected network that provides opportunities for physical activity, accessibility within settlements and to surrounding countryside while enhancing biodiversity and the quality of external environment.

Growth Point: means by which local authorities can pursue large scale, sustainable growth, in partnership with central government and other local partners. Four key principles, required are i) early delivery of housing as part of growth plans, ii) supporting local partners to achieve sustainable growth, iii) working with local partners to ensure infrastructure and service provision keep pace with growth, and iv) ensuring effective delivery.

Green Space: Classified within typology devised by Planning Policy Guidance 17 (PPG17): Planning for Open Space, Sport and Recreation.

Green Space Strategies: Evaluate publicly accessible open space provision within these typologies at the local authority scale, noting issues related to condition, quality and access, often to inform a strategy and action plan that sets out future management and regeneration policies

Green Space Supplementary Planning Document (Green Space SPD): outlines the process for determining the amount of green space that new development would need and the mechanism for calculating developer contributions to enhance existing green space if it is not possible to provide on-site green space.

Green Wedge: An area of land designated in Development Plans that restricts new built development to achieve specific purposes, e.g. retaining separation between rural communities. Green Belts are expected to offer long-term certainty, with their boundaries being altered only in exceptional circumstances.

Heat Island Effect: Surfaces that were once permeable and moist become impermeable and dry as infrastructure develops. These changes cause urban regions to become warmer than their rural surroundings, forming an "island" of higher temperatures in the landscape.

Higher Level Stewardship (HLS): A government voluntary scheme open to all farmers, land managers and tenants in England designed to deliver significant environmental benefits in high priority areas. Under review and change with Agricultural Act 2020/21

Housing Market Area (HMA): A geographical area which reflecting choice of location for a new home i.e. a large percentage of people settling in the area will have sought a house only in that area

Landcover: Combinations of land use and vegetation that cover the land surface

Landscape Analysis: Process of evaluating different components of the landscape - used in landscape ecology based studies and methodologies.

Landscape Capacity: Evaluation of landscape character type/area to accommodate change without adverse impacts. Capacity is likely to vary according to the type and nature of change being proposed.

Landscape Character: Distinct and recognisable pattern of elements that occur consistently in types of landscape, and how this is perceived by people; It reflects combinations of geology, landform, soils, vegetation, land use and human settlement. It creates the particular sense of place of different areas of the landscape.

Landscape Character Assessment (LCA): An approach to assessing and recording features and characteristics that constitutes a particular landscape as a basis for informed planning and policy decisions that respect and enhance that character and a local sense of place. Natural England has completed such an assessment across England, but does not include urban green site assessment.

Landscape Classification: Landscape sorted into different typologies using selected criteria but without attaching relative values to the different kinds of landscapes

Local Strategic Partnership (LSP): brings together organisations from public, private, community and voluntary sector in a local authority area. The key objective of the LSP is to improve the quality of life in that area.

Landscape Quality / Condition: Based on judgements about the physical state of the landscape based on intactness, from visual, functional, and ecological perspectives

Landscape Sensitivity: The extent to which a landscape can accept change of a particular type and scale without unacceptable adverse effects on its character

Leicestershire & Rutland Ornithological Society (LROS): Not-for-profit charitable organisation made up of volunteer members aimed at promoting the study, conservation and enjoyment of birds and birding in Leicestershire and Rutland

Leicestershire & Rutland Wildlife Trust (LRWT): Not-for-Profit charitable organisation – part of national Wildlife Trust, but local branch covers Leicester, Leicestershire & Rutland. Manage own nature reserves, encourages volunteers, conducts surveys, provides advice and comments on local and national nature conservation issues.

Local Biodiversity Action Plans (LBAPs): Produced by local partnerships and reflect local priorities to conserve wildlife habitats, geological features and landforms that contribute to local, regional and national biodiversity. Recognise contribution biodiversity gives to quality of life and local distinctiveness, contributing to the well-being of local communities.

Local Development Framework (LDF): Replacements for Structure and Local Plans and produced by local planning authorities and comprise a series of documents including a Core Strategy, Area Action Plans for areas of change or conservation and Supplementary Planning Documents. The Core Strategy and Area Action Plans have statutory 'development plan' status.

Local Nature Partnership (LNP): Are partnerships from a broad range of local organisations, businesses and people who aim to help bring about improvements in their local natural environment

Local Nature Reserve (LNR): Areas of land designated by a local authority under Section 21 of the National Parks and Access to the Countryside Act 1949 which provide protection for sites of special local interest for nature and offer opportunities for environmental education and community involvement. They deliver a range of benefits to local communities and to visitors.

Local Planning Authority (LPA): A local authority or council that is empowered by law to exercise statutory town planning functions for a particular area of the United Kingdom

Local Wildlife Site (LWS): Non-statutory sites of local importance for nature conservation that complement designated geological and wildlife sites

Multifunctionality: The ability to provide multiple or 'cross cutting' functions, by integrating different activities and land usage on individual sites and across a whole green infrastructure network

National Planning Policy Framework (NPPF): sets out Governments planning policies and its requirements within the planning system in England. It provides a framework for local people and their accountable councils can produce their own distinctive local and neighbourhood plans, which reflect the needs and priorities of their communities.

Office of the Deputy Prime Minister (ODPM): Created as a central government department in May 2002; It is responsible for policy on housing, planning, regional and local government and the fire service.

Planning Obligations: Legal agreements or undertakings under section 106 of the Town and Country Planning Act; they provide a means of ensuring developers contribute towards infrastructure and services to facilitate development - also known as 106 Agreements

Planning Policy Statements / Planning Policy Guidance (PPS / PPG): Government's national policies on planning applied throughout England and focus on procedural policy and process of preparing local development documents. These policies have now been superseded by the National Planning Policy Framework.

Principle Urban Areas (PUA): An urban area includes the historical core municipality, and the adjacent suburbs, but not the exurbs, which are not connected by continuous development to the urban area

Public Open Space: Open space is defined in the Town and Country Planning Act 1990 as land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground **Public Rights of Way (PROW):** Paths on which public have a legally protected right to pass and re-pass. Paths are shown on a Definitive Map as required by The Countryside & Rights of Way Act 2000

Quality of Life Assessment: A tool for maximising environmental, economic and social benefits as part of any land-use planning or management decision; it provides a systematic and transparent evaluation framework for all scales of decision making; integrates environmental, economic and social issues, and combines professional and local community views.

Revenue Costs: Costs associated with on-going management and maintenance of green infrastructure Rights of Way Improvement Plan (ROWIP): A statutory responsibility introduced by the Countryside and Rights of Way (CROW) Act 2000. Now subsumed within Local Transport Plans Sites of Special Scientific Interest (SSSIs): Sites designated under the Wildlife & Countryside Act (1981), as amended, for their outstanding interest in respect of flora, fauna, geology and/or limnology Strategic Environmental Assessment (SEA): An assessment of potential impacts of policies and proposals on the environment and mitigation of impacts.

Stepping Stones: The Stepping Stones Project which ran from 1992 – 2014 which represented partnership working in the parishes surrounding Leicester that aimed to improve green space and make high quality Green Infrastructure available to all.

Swift Partnership Project: Partnership of local authority ecologists, Wildlife Trust, LROS, Severn Trent Water, Environment Agency aimed at conservation and awareness of Swifts in Leicestershire and Rutland Supplementary Planning Document (SPD): Expands or supplements policy in development plan documents, for example design guidance, site development guidance, parking standards etc.

Surface Water Management Plan (SWMP): outlines the preferred surface water management strategy in a given location. Surface water flooding describes flooding from sewers, drains, groundwater, and runoff from land, small watercourses and ditches that occurs as a result of heavy rainfall.

Sustainability Appraisal (SA): An appraisal of impacts of policies and proposals on economic, social and environmental issues; this can also cover the issues required by Strategic Environmental Assessment. Sustainable Urban Drainage Schemes (SUDS): An approach to managing rainfall and run off in developments, with a view to replicating natural drainage; SUDS also aim to control pollution, re-charge ground water, control flooding, and often provide landscape and environmental enhancement

SUDS Approval Body (SAB): an organisation within County Councils and Unitary Authorities specifically established to deal with the design, approval and adoption of sustainable urban drainage systems (SUDS) within any new development consisting of two or more properties. The SAB is required to approve the SUDS prior to construction commencing; it will produce tis own design guidance document and approval/adoption procedures. Statutory consultees of the SAB include Environment Agency, Internal Drainage Board, Canal & River Trust, Highway Authorities and Water Companies.

Wild Places: Sites identified on NatureSpot website as the best places to see wildlife in Leicestershire and Rutland https://www.naturespot.org.uk/wild_places



Chapter 8.0 Useful References



8.0 Useful References

6Cs Growth Points (a) (2010) Green Infrastructure Strategy Volume 1: Sub-Regional Strategic Framework. Available at

https://pdfkiwi.com/documents/green-infrastructure-strategy-nottingham-derby-leicester-5eb32d50577d5

6Cs Growth Points (b) (2010) Volume 5: Strategic GI Network for the Leicester Principal Urban Area and Sub-Regional Centres Available at

https://webarchive.nationalarchives.gov.uk/20110606124859/http://www.emgin.co.uk/images/PDF_Files/6Cs/Strategy/11109009R_Volume%205_Final_06-10.pdf

25 Year plan to improve the environment. (HM Government, 2018) **www.gov.uk/government/publications/25-year-environment-plan**

Biodiversity Challenge: an Action Plan for Leicester, Leicestershire and Rutland. LLRBAP working Group (Jeeves et al 1998)

Biodiversity Net Gain: updating planning requirements. Consultation outcome. www.gov.uk/government/consultations/biodiversity-net-gain-updating-planning-requirements

Birds Jeeves, M.B. (1993):.Leicestershire and Rutland Trust for Nature Conservation Lott, D (1995): Beetles. Leicestershire Museums, Arts and Records Service

Bryophytes Ballard, D & Fletcher, A (1997) Leicestershire Museums, Arts and Records Service

BS42020: 2013 - British standard for Biodiversity – Code of Practice for Planning and development. (BSI, 2013)

Building with Nature – benchmark for people and nature (Gloucestershire Wildlife Trust and University of the West of England, 2017)

www.buildingwithnature.org.uk

Conservation of Habitats and Species Regulations (HM Government, 2017) www.legislation.gov.uk/uksi/2017/1012/contents/made

Defra (2015) The Great Britain Invasive Non-native Species Strategy Available at:

https://www.gov.uk/government/publications/the-great-britain-invasive-non-native-species-strategy

Delivering better water management through the planning system (C787) https://www.susdrain.org/news/articles/guidance_delivering_better_water_management_planning_system c787.html

Environmental (Principles and Governance) Bill (2019/2020) (England and Wales)

Guidance on Biodiversity Net Gain (CIRIA / CIEEM / IEMA, 2016 & 2019) www.ciria.org/Resources/Biodiversity_Net_Gain.aspx

Guidelines for the selection of Local Wildlife Sites in Leicester, Leicestershire and Rutland https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2016/8/22/Guidelines_LWS.pdf

Homes for People and Nature: How to build housing in a nature friendly way (The Wildlife Trusts, 2018) www.wildlifetrusts.org/sites/default/files/2018- 05/homes_for_people_and_wildlife_lr_-_spreads.pdf

Landscape and Urban Design for Bats and Biodiversity (Kelly Gunnell, Gary Grant, Carol Williams, 2012) www.bats.org.uk/our-work/landscapes-for-bats/landscape-and-urban-design

Leicester City Council Leicester's Pollinator Strategy 2020-2025 Available at: https://www.leicester.gov.uk/planning-and-building/conservation/nature-and-biodiversity/promoting-biodiversity/

Leicester City Council (2019) Climate Change Emergency Available at: https://www.leicester.gov.uk/your-council/policies-plans-and-strategies/environment-and-sustainability/climate-emergency/

Leicester City Council Tree Strategy 2018-2023 (2018) Available at: https://www.leicester.gov.uk/media/185470/trees-strategy-2018-23-v2.pdf

Leicester City Council Tree Strategy Supporting Document 2018-2023 (2018) Available at: https://www.leicester.gov.uk/media/185475/tree-strategy-supporting-document-2018-2023.pdf

Leicester City Council Open Space, Sport and Recreation Study (2017) Available at: https://www.leicester.gov.uk/media/183590/open-space-sport-and-recreation-study-report.pdf

Leicester Green Infrastructure Strategy 2015-2025 (2015) Available at: https://www.leicester.gov.uk/media/183734/leicesters-green-infrastructure-strategy-2015-2025.pdf

Leicester City Council (2015) Local Flood Risk Management Strategy Available at: https://www.leicester.gov.uk/media/178225/master-lfrms-web-lo-res-mar-2015.pdf

Leicester City Council (2014) Leicester's Food Plan 2014-2016 Available at: https://www.leicester.gov.uk/media/178765/leicesters-food-plan-2014-16.pdf

Leicester City Council Surface Water Management Plan (2012) Available at: https://www.leicester.gov.uk/media/183598/surface-water-management-plan-report.pdf

Leicester City Council Level 2 Strategic Flood Risk Assessment (2012) Available at: https://www.leicester.gov.uk/media/178231/leicester-I2-sfra-final-report-2012.pdf

Leicester City Council (2011) Leicester Biodiversity Action Plan 2011-2021 Available at: http://www.leicester.gov.uk/your-council-services/ep/planning/conservation/biodiversity/biodiversity-actionplan/

Leicester City Council (2011) Leicester Local Transport Plan 2011-2026 and Local Transport Asset Management Plan 2011-2015 Available at:

https://www.leicester.gov.uk/media/183591/local-transport-plan-2011-2026-part-a-the-transport-strategy.pdf

Leicester City Council (2008) Parks Green Space Strategy 2009-2015 Available at: https://www.leicester.gov.uk/media/178493/greenspace-strategy.pdf

Local Action Project – Leicester Ecosystem Benefits in Urban Water Environments Available at: https://www.leicester.gov.uk/media/183735/leicesters-local-action-project.pdf

Making Space for Nature: Leicester, Leicestershire and Rutland Biodiversity Action Plan 2016 – 2026 (Timms, S (2016)

https://www.leicestershire.gov.uk/sites/default/files/field/pdf/2017/1/25/LLR_BAP_Space_for_Wildlife_2 016-26_part_1.pdf

Mammals, Reptiles, Amphibians and Fish Dawson, J & Heaton, A. (1997). Leicestershire Museums, Arts and Records Service

Managing Grassland Road Verges: Best practice guidance (Plantlife, 2019)

https://www.plantlife.org.uk/uk/our-work/publications/road-verge-management-guide

McPhail, J. & Morris, D. (1997): Butterflies and Moths. Leicestershire Museums, Arts and Records Service

National Standards for Sustainable Drainage (SusDrain)

https://www.susdrain.org/delivering-suds/using-suds/legislation-and-regulation/national-standards-for-sustainable-drainage.html

Natural Environment and Rural Communities (NERC) Act (2006) www.legislation.gov.uk/ukpga/2006/16/contents

Space for Wildlife: Leicester, Leicestershire and Rutland Biodiversity Action Plan 2010 – 2015. LLRBAP Working Group (LRWT 2011)

The Flora of Leicestershire and Rutland: Checklist and Rare Plant Register. Leicestershire & Rutland Wildlife Trust (Jeeves M 2011)

Trees Species selection for Green Infrastructure, (Trees and Design Action Group, 2018) http://www.tdag.org.uk/species-selection-for-green-infrastructure.html

Vascular Plants Jeeves, M.B. (1993): Leicestershire and Rutland Trust for Nature Conservation



Appendix 1 – Local Wildlife sites



Appendix 1 – Local Wildlife sites

Site	Site Name	Area	Land-Use	Species and Habitats
2	Castle Hill - Gorse Hill	6.29	Managed open space - park Relic of rural landscape - ancient hedge	Species-rich neutral grasslands and species-rich hedgerow
3	King William's bridge	0.01	Relic of rural landscape – stone bridge (also a scheduled	Lichen species assemblage
4	4 Red Hill and	11.11	Managed open space – allotments, cemetery	Species-rich neutral grasslands, scrub
	Belgrave Cemetery		Post industrial - former railway	Pyramidal Orchids, badgers
5 River Soar and Grand Union Cana	Divar Coored	52.03	Remnant natural system – River Soar	Aquatic habitats, marshland and species-rich neutral grassland, veteran trees (willows and poplars)
	Grand Union Canal		Most is part of the Grand Union/River Soar navigation	Daubenton's bat roost, lichens, kingfisher, badger, little grebe
			Adjacent land within corridor has a variety of uses	
I h i	Watermead Country	nead Country 40.67	Managed open space – LNR	Aquatic habitats and open water, neutral grasslands, willow carr and marshland, reedbed. Waterfowl.
	Park		Remnant natural system –	Crow Garlic and Golden Dock
			Post industrial – former gravel	
7	Birstall Meadows	15.05	Relic of rural landscape – grazing fields	Species-rich neutral grasslands and flood meadow
8	Melton Brook	3.84	Post-industrial and storm	Marshland and early successional
9	Hamilton meadows	8.67	Relic of rural landscape -	Species-rich neutral grasslands
11	Quakesick Spinney	0.89	Relic of rural landscape -	Lichens
12	Gypsy Lane Claypit SSSI	11.5	Post-industrial – former brick pit (includes a geological SSSI)	Early successional habitats; wetland
13	Anstey Lane and Goss Meadows	11.8	Relic of rural landscape – grassland, spinney, ancient	Species-rich neutral grasslands, ponds, marshland, ancient hedgerow
Goss Meadows	Goss Meadows		Managed open space - LNR	maismand, andent nedgerow
14	The Orchards	5.97	Managed open space – LNR	Scrub woodland
15	Stokeswood Park	12.95	Managed open space - park	Species-rich neutral grasslands, scrub
	Western Golf-course and adjacent sites	43.16	Managed open space – golf-	Ponds and spinneys, hedges
16			Relic of rural landscape –	Great Crested Newts
17	Kirby Frith	1.88	Relic of rural landscape –	Species-rich neutral grassland
			Managed open space - LNR	Use by communities

19	Ratby Lane	2.69	Relic of rural landscape – ancient hedge	Hedgerow and spinney
20	Highway Spinney/Meynell's	7.89	Relic of rural landscape - spinney	Spinneys
1 21 1	Braunstone Park	2.92	Relic of rural landscape – grassland	Species-rich neutral grassland
	meadow		Managed open space - park	Use by communities
			Managed open space – park	Species-rich neutral grassland,
22	Willowbrook 6.29		Remnant natural system - stream	marshland, pond and brook. Last record for Water vole in Leicester
23	Ethel Road verge	1.08	Managed open space - park	Species-rich calcareous and neutral
23	Ether Road verge			Pyramidal and Bee Orchids
24	Evington Park pond	0.44	Managed open space - park	Pond with amphibian populations
	Leicestershire golf- course,		Managed open space – golf- course, park, churchyard	Species-rich neutral grasslands, lichens, brook
25	St Denys' churchyard,	76.8	Relic of rural landscape – ancient hedge, grassland	Adder's tongue fern, Badger
20	Shady lane and	70.0	Remnant natural system –	
	Piggy's Hollow		Evington Brook Also includes a scheduled	
			ancient monument	
			Active and disused railways	Species-rich neutral and calcareous
	Ivanhoe/Mainline railway and adjacent sites	17.18	and post industrial land, road	grasslands, scrub, early successional
26			Part (Great Central Way) is now a cycle route	Blue Fleabane, Silvery Hair-grass, Kidney Vetch, Heather, Common Cudweed, Dropwort, Purging Flax, Small toadflax, Early Hair-grass,
				Great Central Way used by
27	Welford Rd. Cemetery	12.39	Managed open space - cemetery	Species-rich neutral grasslands and veteran trees
	Grand Union canal	16.92	Managed open space - canal	Aquatic habitat and open water
28				Grass-wrack pondweed and White-
	Aylestone Meadows (N)	60.19	Relic of rural landscape – grazing fields	Species-rich neutral grasslands, small river and aquatic habitats, ponds,
29			Managed open space – LNR	Badger, Kingfisher, Reed Bunting
			Remnant natural system – River Biam	Use by communities
30	Aylestone Meadows (C)	46.62	Relic of rural landscape – grazing fields	Species-rich neutral grasslands, small river and aquatic habitats, ponds,
			Managed open space – LNR	Badger, Kingfisher, Reed bunting, Marsh Arrow-grass, Meadow Saxifrage, Lesser Spearwort, Meadow-rue, Tubular water-dropwort, Round-fruited
			Also with Packhorse Bridge scheduled ancient monument	

31	Aylestone Meadows (S)	3.55	Relic of rural landscape – grazing fields	Species-rich neutral grasslands, small river and aquatic habitats, ponds, veteran trees
32	Knighton Spinney	2.89	Relic of rural landscape – spinney	Spinney
			Managed open space - LNR	
33	Braunstone Park:	32.44	Relic of rural landscape – veteran trees	Veteran trees
	mature trees	32.44	Managed open space – parkland	votoran troos
34	Ashton Green	10.46	Rural landscape with relic grassland, established mature hedgerows, field ponds and veteran trees	Species-rich neutral grasslands, ponds, veteran trees, hedgerows
36	Saffron Lane Brook	0.08	Remnant natural system	Stream with natural meanders, pools, riffles and sand bars
39	Wash Brook Nature Reserve	3.6	Relic rural landscape and brownfield site	Species-rich neutral grassland, small brook, pond, scrub
42	Appleton Park and Peebles Way Nature Reserve	1.7	Relic rural landscape and brownfield site	Species-rich neutral grassland, woodland pond, scrub
43	Sonning Way Open Space Hedgerow		Relic rural landscape - mature hedgerow	Hedgerow, veteran trees
45	Evington Park Field Ponds	0.22	Managed open space - park	Ponds
46	King's Lock Fields, Aylestone		Relic rural landscape	Species-rich neutral grassland
48	Knighton (Attenborough) Arboretum Pond	0.13	Managed open space	Pond
49	Anstey Lane Hedgerow	590m	Relic rural landscape - mature hedgerow	Hedgerow, veteran trees
50	Sturdee Road Hedgerow	360m	Relic rural landscape - mature hedgerow	Hedgerow, veteran trees
51	Hinckley Road Hedgerow	298m	Relic rural landscape - mature hedgerow	Hedgerow, veteran trees
52	Western Park Hedgerow and Pond	0.02	Relic rural landscape - mature hedgerow	Hedgerow, field pond
53	Knighton Park Hedgerows	190m	Relic rural landscape - mature hedgerow	Hedgerow, veteran trees
54	Waterside Centre, Anstey Lane	0.56	Covered reservoir	Species-rich neutral grassland













































