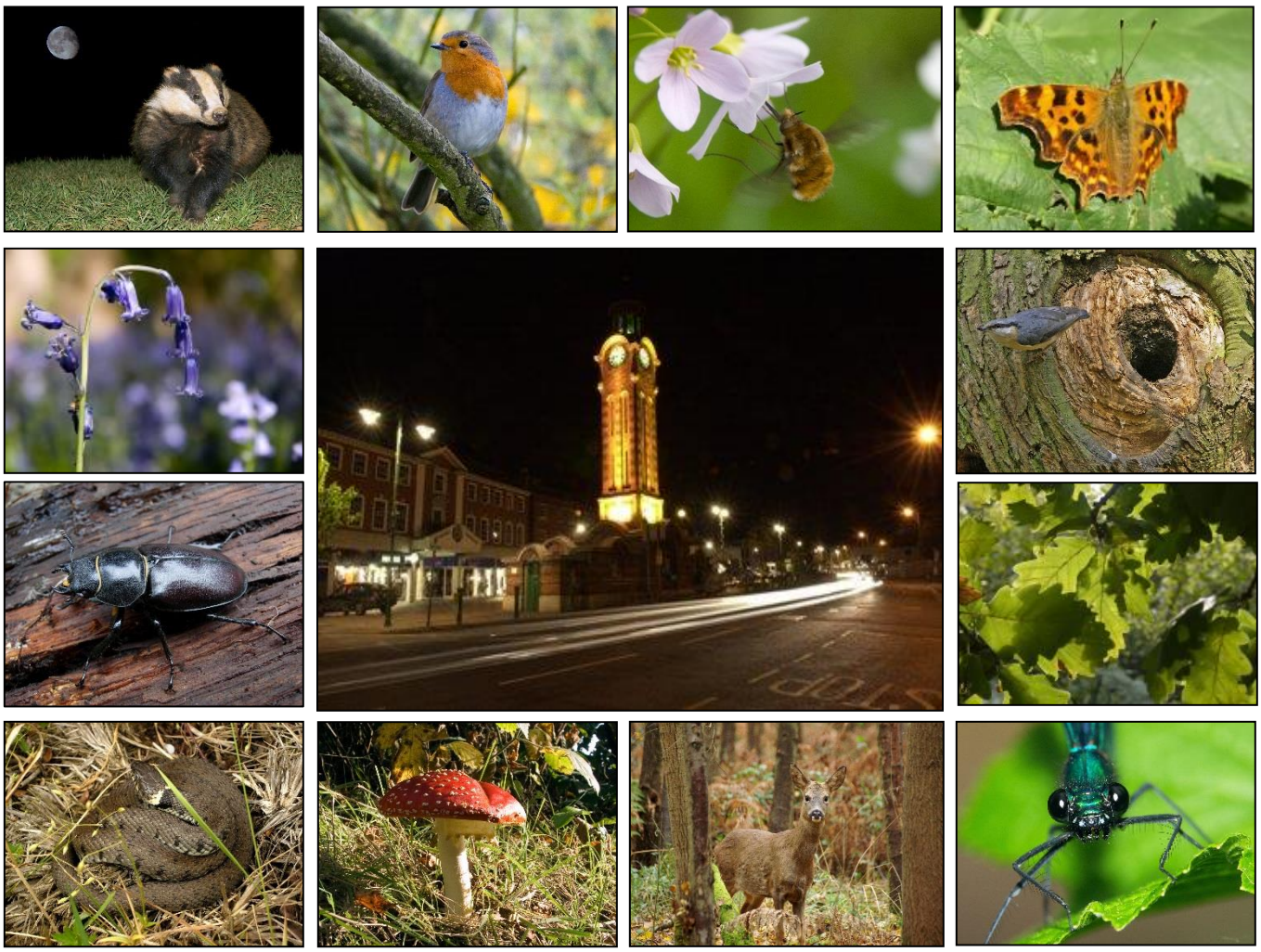
EPSOM & EWELL BOROUGH COUNCIL

Epsom & Ewell
Biodiversity Action Plan 2020-30



Reviewed and updated in 2025

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FOREWORD

When you are a kid size matters and thus the magnificent male Stag Beetles emergence was an eagerly anticipated annual event. A nearby street had some monstrous oaks and a diversion from the normal route to school would pay dividends and fill my jam jars. To be fair these creatures have lost none of their allure over the years but now it's not just their size that matters, it's their importance as a flagship species - they along with the Oaks which nourish their peculiar larvae. So I'm not surprised that you have chosen them as your local heroes to champion the Biodiversity Action Plan - and you have impressive numbers of these giants too!

In simple terms any communities' Biodiversity is a measure of its health and stability. The more niches that are filled the better the natural machine will function and prosper. Thus nationally, regionally and locally we have constructed plans which aim to protect and enhance the richness of life at these respective levels. All have their roles but local strategies are tremendously important because they are implicitly governed by those who live, work and influence that community - these are formulated, enacted and enjoyed by those 'on the ground'. They are about 'personal wildlife conservation'!

In these days where doom and gloom are a constant temptation, I remain optimistic about our abilities to make a difference because we have such a well-stocked armory of abilities to effectively conserve life. We have studied it, tested it, we know what we need to do. The introduction of grazing on Epsom Common has seen superb revivals in butterfly and plant diversity and even established a future for a population of the charismatic Yellowhammer. This has only been achieved by many years of tireless volunteer endeavor - an essential component of contemporary conservation.

And ultimately this success is good for us to. We uniquely have a conscience so we have to try to do what we know is right, but also we can enjoy a better quality of life as a result, the sight of a Stag Beetle whirring across the dusk sky or the charming song of the Yellowhammer with its 'little bit of bread but no cheese' can make your day. And that's the real key here, it will make your day and not mine, because the borough of Epsom and Ewell is yours. You mend it, restore it and protect it and you can revel, be proud of and enjoy it! Superb!

Chris Packham (Famous naturalist, broadcaster and environmental campaigner.)

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Photographs courtesy of Stewart Cocker

Black-tailed skimmer Dragonfly – Orthetrum cancellatum

1.0 INTRODUCTION

1.1 2025 Update

The original Biodiversity Action Plan 2020-30 has been updated to ensure the changes made to managing Biodiversity, enacted by the Environment Act 2021, are included and considered. The update also assesses progress made and identifies key priorities to focus on for the next 5 yrs. The main changes are found in Chapter 1, which introduces the legal changes, Chapter 6 which considers the potential improvements that could be made to managing Biodiversity and Chapter 7, which includes a progress report on current actions along with additional key priorities for the next 5 yrs. All additions/updates have been marked with a **

1.2 What is Biodiversity?

Biodiversity encompasses the whole variety of life on Earth. It includes all species of plants and animals, their genetic variation, and the complex ecosystems of which they are part. It is not restricted to rare or threatened species but includes the whole of the natural world from the commonplace to the critically endangered.

1.3 The importance of Biodiversity

The intricate network of ecosystems, habitats and species comprising Biodiversity provides the support systems that sustain human existence. It provides many of the essentials of life, our oxygen, water, food, clothing, health and relaxation. Consequently, humanity must adopt sustainable ways of living that ensure the protection of Biodiversity. Today we live in a world where the economic activities of an ever-increasing human population threaten Biodiversity, which is being lost at an ever-increasing rate. Britain alone is known to have lost 100 species during the twentieth century. There is a broad consensus around the world that we need to act now, or risk handing our children a world we would not recognise as planet Earth!

1.4 What is a local Biodiversity action plan?

A local Biodiversity action plan (BAP or LBAP) is a long-term plan aimed at protecting, maintaining and where possible enhancing Biodiversity at a local level, taking into account both local, regional, national and sometimes international priorities. A plan can focus on habitats or individual species and may contain separate habitat (HAP) and species action plans (SAP).

In particular, local BAP's can be an effective way of ensuring the protection and enhancement of 'Habitats and Species of Principle Importance' and at the same time taking local, often unique characteristics into account. For example, in Epsom and Ewell a local BAP can highlight the Stag Beetle a national priority species, which is found across the borough within both natural and urban habitats and not just on sites like Epsom Common Local Nature Reserve.

A local BAP is not a substitute for other policies and initiatives that aim to protect and enhance Biodiversity at the local level e.g. site management plans or planning law. To be successful a local BAP needs to be inclusive to ensure that local Biodiversity priorities are accurately identified and resources effectively used. Consequently, no single organisation is likely to be able to deliver a local BAP and the national guidance on local BAP's emphasises the importance of local partnerships in agreeing and implementing a local BAP.

A local BAP aims to describe the Biodiversity within the area covered by the plan, identify priorities, define objectives, set targets and implement actions. This approach enables resources to be targeted and results to be monitored all within set time limits. The former but still relevant national guidance outlines the purpose for local Biodiversity action plans as:

1. Ensure that national targets for species and habitats of principal Importance listed and covered under section 41 (England) of the Natural Environment and Rural Communities (NERC) Act 2006, are translated into effective action at the local level.
2. Identify targets for species and habitats appropriate to the local area, reflecting the values of people locally.
3. Develop effective local partnerships to ensure that programs for Biodiversity conservation are maintained in the long term.
4. Raise awareness of the need for Biodiversity conservation in the local context.
5. Ensure opportunities for conservation and enhancement of the whole Biodiversity resource are fully considered and, if possible, enacted.
6. Provide a basis for monitoring progress in Biodiversity conservation, at both local and national level.

1.5 Designing a Local Biodiversity Action Plan for Epsom & Ewell

1.5.1 Aim

This plan aims to conserve and enhance habitat types and species of principal importance within the borough of Epsom and Ewell as identified and listed under section 41 (England) of the NERC Act (2006) and coordinates with the Surrey Nature Partnership Biodiversity Working Group. In addition, the plan will seek to identify actions that will afford wider protection to Biodiversity across the borough through the use of the local authority planning process. It will also seek to create awareness that managing the Borough's Biodiversity is a key part of the infrastructure of the Borough. Just as important as roads, schools, business and housing development etc.

1.5.2 Methodology

This second BAP updates and builds on the previous plan, incorporating new legislation and guidance for example, the 25yr environment plan and the **Environment Act 2021, the latter strengthening policies laid out in the NERC Act.

1.5.3 Partnership

The Epsom and Ewell LBAP originates from a partnership between the Epsom and Ewell Environment Forum (No longer active) and Epsom and Ewell Borough Council. The Epsom & Ewell Local Biodiversity Action Plan (EELBAP) working group was formed and now meets three times a year to review all aspects of the plan and its implementation. The lead body is Epsom Ewell Borough Council, which owns and manages most of the Borough's publicly accessible green space making up a large part of the Borough's extensive Green Belt. In addition, the Borough Council is the local planning authority and responsible for controlling development within the Borough.

The 'Working Group' currently comprises the following individuals:

- Head of Place, Epsom & Ewell Borough Council
- Countryside Manager, Epsom & Ewell Borough Council
- Senior Countryside Officer, Epsom & Ewell Borough Council
- Countryside Officer (Ecologist) Epsom & Ewell Borough Council
- Tree Officer, Epsom & Ewell Borough Council
- Retired former County Ecologist
- Surrey Biological Record Centre Manager, Surrey Wildlife Trust
- Surrey Countryside Partnerships Operation Manager'
- Locally based ecologist and environmental consultant

- Lead surveying and monitoring volunteer

Over the last 15 yrs the EEBAP working group has encouraged and supported a wide cross-section of organisations and individuals working to protect and enhance Biodiversity in the borough and every effort will be made for this to continue. The Biodiversity Working Groups of Epsom and Ewell and Surrey Nature Partnership work closely with each other, which is seen as an essential part of both developing this plan as well as implementing it.

Volunteers and staff from the Epsom Common Association, Lower Mole Partnership, City of London (Ashtead Common) and Epsom & Ewell Borough Council, carrying out woodland management during Jan 2018

1.6 Protecting Biodiversity – Our Legal Obligations **

The protection of Biodiversity in Britain is by no means a new concept, some laws protecting certain habitats and species even date back to medieval times. The enactment of the 1949 'National Parks and Access to the Countryside Act' was the beginning of the modern scientific approach to protecting habitats and individual species and this has been added to over the years, for example the 1984 'Wildlife and Countryside Act'. Legislation until recently has focused on threatened habitats and species and the creation of protected Islands in the form of National Nature Reserves, Sites of Special Scientific Interest and Local Nature Reserves.

Global agreement was reached in 1992 at a conference held in Rio de Janeiro (The Earth Summit) that 150 nations would plan and implement ways of protecting and enhancing their Biodiversity by signing the Convention on Biological Diversity. The strap line ‘Act locally think globally’ came from the conference to emphasise that the complexity and value of Biodiversity is to be found everywhere on the planet and we all must play a part in protecting life on Earth.

In Britain, the signing of the convention resulted in 1994 in the creation of the UK Biodiversity Action Plan outlining plans to protect a list of priority habitats and species. The national action plan provided the context and framework for local Biodiversity action plans, which can be focused on local priorities, whilst still helping to achieve national and indeed global aims. In addition, the UK government committed itself at the 2002 Johannesburg World Summit to reduce significantly, the rate of Biodiversity loss by 2010. An outcome of this commitment was the target to have all Sites of Special Scientific Interest classified as in 'Favorable' condition by 2010.

In 2021/22 the UN Biodiversity Conference, also known as COP15, the UK government agreed a new Global Biodiversity Framework aimed at halting and reversing biodiversity loss by 2030, with 23 global targets including 30% of global land and 30% of global ocean to be protected by 2030.

Protecting Biodiversity as a whole (landscape scale approach) is now considered to be a better way forward and more recent legislation reflects this. For example, the Natural Environment and Rural Communities Act 2006 gives all public bodies "a duty to have regard to the conservation of Biodiversity in exercising their functions" The Environment Act (2021) has amended this duty so that there is an expectation on public authorities to look strategically at their policies and operations from time to time (at least every 5 years) and assess what action they can take 'to further' the conservation and enhancement of biodiversity. They must also have regard to the relevant Local Nature Recovery Strategies, Species Conservation Strategies and Protected Sites Strategies, as part of the consideration. Local authorities and local planning authorities have a duty under section 40A **to report** on the performance of this duty. This is discussed further in Chapter 6.

The Environment Act (2021) also mandates Biodiversity Net Gain (BNG), ensuring that developments (unless an exemption applies) leave Biodiversity in a measurably better state than pre-development. This has the potential to help protect the Biodiversity of Epsom and Ewell and is discussed further in Chapter 6. Alongside this, agri-environment schemes now pay farmers and landowners nationwide for the environmental benefits they provide. These schemes along with BNG can potentially provide much needed funding for the management of biodiversity.

Biodiversity action plans (BAPs) have the ability to encompass the new more extensive approach. For example, the aim of the former UK BAP of protecting habitats and species across the nation is by default an extensive and very complex task. Crucially Local BAPs are seen as making the national task more manageable. The UK BAP has been replaced by the 'UK Post-2010 Biodiversity Framework,' which is now country based i.e. England, Scotland, Wales & N. Ireland. The value of the UK BAP list of habitats and species remains but emphasis is now placed on habitats and species of principal importance for the purpose of conserving Biodiversity, listed and covered under section 41 (England) of the NERC Act (2006). Consequently, impacts on these habitats and species need to be taken into consideration by a public body when performing any of its functions. The UK government has aligned its approach to Biodiversity management with the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and this can be seen in their 'Biodiversity 2020' Strategy. Further information on how the government expect the Natural Environment to be protected can be found here

Legislation focused on Biodiversity is one aspect of the legislative approach to protecting Biodiversity, the other is that of Planning Law/Policy and its guidance on ensuring Biodiversity is part of the decision-making in the development management process. The National Planning Policy Framework (NPPF) 2024 (chapter 15) requires Biodiversity objectives to be included in local development documents.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

Key sections of the NPPF are seen below.

Extracts from NPPF, Chapter 15

187. Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing ***coherent ecological networks*** *that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;*

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

192. To protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

Biodiversity Opportunity Areas (BOAs) (discussed further in Chapter 6) are seen as a way of fulfilling the objectives in paragraph 187 and 192 in the NPPF. BOAs establish a network to manage and enhance Biodiversity on a landscape scale. Further information on BOAs is found in Chapter 6.

The Environment Act (2021) has developed the idea of BOAs and is now requiring the creation of Local Nature Recovery Strategies (LNRS) across the country. Surrey County Council has become the responsible body to create the LNRS Epsom and Ewell will be linked to. They have consulted widely with local people and stakeholders and the Boroughs and Districts have been able to play a supporting role in the creation of the LNRS for Surrey. It is hoped the first strategy will be finalised in 2025 and is discussed further in Chapter 6.

The coordination between the local BAP, the LNRS and the Epsom and Ewell Local Plan will ensure the protection of Biodiversity across the borough, focusing on preventing the fragmentation of areas important for wildlife.

1.7 How does Biodiversity benefit community and business in Epsom & Ewell?

Whilst globally, Biodiversity has a vital role in providing the basics for sustaining human life, we should not forget that as humans we also value Biodiversity in other ways, often at a very personal level and on a local scale. There are a wide range of benefits that Biodiversity brings to both individuals, communities and businesses within Epsom and Ewell and it is very much a part of the cultural and economic life of the borough. For example, local surveys of residents and businesses have shown repeatedly that the large areas of accessible open space in Epsom and Ewell are a key factor in people choosing to live and work in the Borough. This contributes significantly to the Borough's economy and it is Biodiversity, in the form of plant and animal life, which makes the open spaces such green and pleasant places.

Over the last 15 years, further benefits of Biodiversity and having well-functioning ecosystems have been recognised. Known as **Ecosystem Services**, there is an increasing understanding that we need to incorporate the benefits (services) provided by Biodiversity and natural processes into our economic models. The government published a watershed document, the 'UK National Ecosystem Assessment', which shows very clearly how we undervalue our natural resources and the services they provide.

The Ecosystem Services are separated into 4 categories:
Provisioning services: The products obtained from ecosystems

- Food
- Fibre
- Fresh water
- Genetic resources

Regulating services: The benefits obtained from the regulation of ecosystem processes.

- Climate regulation (wind break and cooling effects)
- Hazard regulation (flood and erosion control)
- Noise regulation
- Pollination
- Disease and pest regulation
- Regulation of water, air and soil quality (pollution filtration)

Supporting services: Ecosystem services that are necessary for the production of all other ecosystem services.

- Soil formation
- Nutrient cycling
- Water cycling
- Primary production

Cultural services: The non-material benefits people obtain from ecosystems.

- Psychological/spiritual or religious enrichment
- Cultural heritage
- Health benefits
- Environmental education benefits (all ages and opportunities to volunteer and play and active role in the local community)
- Safe off road routes for cycling, thereby reducing car journeys

The result of undervaluing our natural resources is ultimately an unsustainable future. Addressing this issue demands a long-term approach that recognises the delicate balance of the ecosystems that provide us with vital ecosystem services such as clean air, fresh water and fertile soils. This concept is as applicable to Epsom & Ewell as anywhere else on the planet.

It is undoubtedly a big and complex subject, however it is possible to identify local issues to illustrate the challenge we are facing. For example, Biodiversity on our local open spaces provides a range of vital ecosystem services and in particular a cultural ecosystem service providing residents with well-recognised and significant psychological and health benefits, highlighted during the recent Coronavirus crisis. Just 5 minutes of exercise in a green space can boost mental health. 637 deaths could be prevented per year if 100% of the Surrey population became active.

Some of our open spaces in Epsom & Ewell show signs of strain due to high visitor numbers. Woodland wildflowers and aquatic life in ponds are under pressure from constant daily disturbance. The UK Ecosystem Assessment shows clearly that sustainable management of our open spaces today not only helps protect their Biodiversity but also ensures that wider, in some cases very costly, environmental impacts are avoided.

During 2018 the Surrey Nature Partnership (SNP), to which EEBC is affiliated through the Surrey Nature Partnership Biodiversity Working Group, published a Natural Capital Investment Plan for Surrey. The project focused on developing an understanding of the value of the county's natural assets, which underpin the provision of ecosystem services, 30% of which are thought to be in decline in Surrey. It estimates £90 million as the value of the economic and social/wellbeing benefits of woodland across the county, with the majority of that value being for health and wellbeing.

More information can be found here.
https://surreynaturepartnership.files.wordpress.com/2014/09/surrey-nature-partnership-briefing-note-on-a-natural-capital-approach-for-surrey-sept-2017.pdf

There is currently a wide range of activities and initiatives carried out by organisations and individual volunteers working to protect and enhance Biodiversity within Epsom and Ewell. There is a continuous need for a plan with a vision outlining the priority actions that need to be taken to protect and enhance Biodiversity across the borough over the long term, which would also help ensure current endeavors are appropriate and effective. A local BAP enables the effective use of the resources available in Epsom and Ewell with regard to protecting and enhancing Biodiversity over the long term.

The Epsom and Ewell Biodiversity Working Group ensures that the plan does not sit on a shelf gathering dust and is subject to regular scrutiny by individuals already involved in working to protect and enhance Biodiversity.

Working to ensure the long-term sustainability of Biodiversity in Epsom and Ewell safeguards one of the borough's key assets and plays an important role in maintaining the local economy and improving the health of residents.

1.8 The impact of climate change on Biodiversity in Epsom & Ewell **

The link between climate change and Biodiversity has been known for many years, indeed historically on a planetary scale ecosystems are known to affect climate and have evolved and adjusted to changes in the Earth's climate over time. The issue with man-made (anthropogenic) climate change is the speed with which the change is occurring. The available scientific evidence points to rapid climate change resulting in an overall loss in Biodiversity.

The natural environment has an innate value that means we must protect it. Its value to us is clearer than ever, as shown above, through the ecosystem services it provides: it is fundamental to our health and wellbeing, is the foundation of a productive economy and provides us with attractive neighbourhoods and access to green spaces we can enjoy.

Despite this the natural environment faces urgent and significant challenges, with the UK being one of the most nature depleted countries in the world. By tackling the twin biodiversity and climate emergencies, we will help nature recover and, at the same time, secure health and economic benefits from an enhanced natural environment, for wildlife, for people and for our economy.

Key publications include:
The **State of Nature Report 2023** suggests there has been a 19% decline in the average abundance of wildlife in the UK since the 1970s.
The 'Bigger, Better, More and Joined-up' principles of the **Lawton Report (2010)** - 'Making Space for Nature' - should be followed to help rebuild nature. (See Chapter 6 section 6.2 for more information on how we aim to do this locally.)
The Dasgupta Review 2021 makes explicit that long term economic prosperity is dependent on a healthy natural environment.

In Epsom & Ewell there have already been examples of the effects of climate change in recent years. For example, the Brown Hairstreak butterfly used to be restricted to areas south of the North Downs, but today they can be found in Epsom & Ewell and even further north. It is a seemingly benign indicator, one that for the Borough is in a sense currently positive. However, we are also likely to see other animal and plant species either move north and leave the Borough or perish as temperatures rise.

Research does suggest that especially in largely man-made landscapes such as those found in Epsom and Ewell it would be possible to manage and mitigate for climate change to some extent. For example, a significant proportion of Epsom & Ewell's land area is managed public open space and back gardens. Through future management of existing habitats in our open spaces and also residents back gardens, Biodiversity could be maintained and, in some cases, enhanced. For example, climate change seems to be causing an increase in the intensity of rainfall leading to a greater risk of localised flooding. It is possible to

reduce flood risk by naturalising watercourses, benefiting both Biodiversity and protecting our built environment.

The Council has adopted its second Climate Change Action Plan (2025-2029) which under the theme 'Improvements to the Environment', has a target - Identify & implement opportunities to act locally where managing, protecting and enhancing Biodiversity can assist with global priorities of environmental sustainability, aligned with objective 5 of the Biodiversity Action Plan (2020-2030). This could include appropriate tree and hedgerow planting, supporting local research into climate impacts & carbon sequestration, delivery of Biodiversity Net Gain (BNG), supporting actions against climate related issues such as invasive plants, pests and diseases. A member of the Countryside Team sits on the Climate Change and Biodiversity Working Group and the Environment and Sustainability Projects Officer sits on the Biodiversity Action Plan Working Group. This is to ensure any opportunities to work cooperatively are taken.

1.9 Summary of success since the first 2010 Biodiversity Action Plan **

- The need to protect and enhance the Borough's Biodiversity was written in to local planning policy and the Epsom & Ewell Borough Council Countryside Team, with regular strategic input from the Working Group, provides in-house advice on Biodiversity to both the Planning Policy and Development Management Teams.
- The need to survey for protected species has been extended to include householder applications.
- Raising the profile of key issues e.g. damage caused by inappropriate public access, danger of flea and tick treatment on invertebrate life.
- Protecting and enhancing Biodiversity has become a Key Priority for the Borough Council.
- Increased surveying and monitoring across the Borough particularly improving our knowledge of protected habitats and species. For example, Identification of 113 NERC species.
- Better-coordinated and larger scale chalk grassland habitat restoration on Epsom Downs.
- A commitment to investigate the reintroduction of grazing at Juniper Hill on Epsom Downs.
- Improved grassland management across our Local Nature Reserves, Nonsuch Park and Epsom Downs by the purchase and use of a flail collector, enabling the cutting and removal of arisings on our grassland habitat.
- Conservation enhancement for the Small Blue butterfly in partnership with the Lower Mole Partnership and Butterfly Conservation.
- More effective engagement with the Lower Mole Partnership, South East Rivers Trust, Surrey Wildlife Trust, Woodland Trust, Butterfly Conservation, Surrey Botanical Society, Surrey Bat Group, British Dragonfly Society, Surrey Amphibian and Reptile Group, Surrey Biological Records Centre, Zoological Society of London.
- Favourable condition of Epsom Common SSSI and Stones Road SSSI.
- Significant increase in volunteers carrying out practical conservation, surveying and monitoring.
- The management of Epsom Common is seen as the national example of restoring a SSSI.
- Facilitation of the re-evaluation of the Borough's Ancient Woodland and SNCIs.
- Successful implementation and review of site management plans with the adoption of a one hundred year approach for the Borough's Local Nature Reserves.
- Management plans have enabled the capture of significant external funding enabling and aiding the management of Biodiversity in the Borough's open spaces. During the lifetime of the previous plan 2010 – 2020 over three quarters of a million pounds was secured.

- Updating of habitat management plans for Epsom Downs and Nonsuch Park.
- A significant contribution to the process of agreeing the Woodland Trust's tree planting proposals following their acquisition of Langley Vale Farm to create their World War One Centenary Woodland
- Creation of a Buffer zone including a new pond to help protect Stones Rd SSSI and creation of a new nature reserve on the site of a former allotment.
- Veteran trees are considered heritage assets in planning terms and are material considerations in planning applications.
- Support to Tree Officer in establishing the Ash-Dieback working group to work out a plan to deal with diseased trees and ensure safety of the public, whilst protecting biodiversity.
- Improved mapping and management of veteran trees across the Borough.
- Pond restoration – Field Pond in Horton Country Park Local Nature Reserve and Round Pond in Nonsuch Park.
- Three new Ponds and wetland creation in Horton Country Park Local Nature Reserve and two new ponds on Epsom Common Local Nature Reserve.
- Project to de-silt Stew Pond is underway.
- Working with the Newt Partnership as part of District Level Licensing to provide new ponds for compensation for the loss of newt habitat due to development.
- Expansion of conservation grazing on Epsom Common.
- Engagement with the South East Rivers Trust (SERT) resulting in numerous habitat improvements along the Hogsmill River.
- Completion of new wetland habitat at Chamber Mead in the Hogsmill LNR in partnership with SERT.
- Working together with The Orchard Project to manage the Traditional Orchards in Horton Country Park Local Nature Reserve.
- Increased bat surveying across the Borough
- Access improvements to protect fragile habitats.

2.0 BIODIVERSITY WITHIN EPSOM AND EWELL

2.1 Habitats

This plan is focused primarily on the protection and enhancement of habitats as prioritised by the habitats and species of principle importance listed and covered under section 41 (England) of the Natural Environment and Rural Communities Act 2006 (NERC Act 2006). Across the UK as a whole there are 56 habitats of 'Principal Importance'.

Listed below are the currently identified habitats of principal importance present within Epsom and Ewell, and also includes the more urban habitats found in the Borough, which are important to Epsom and Ewell's Green Infrastructure. Appendix 3 contains a comprehensive list of the locations of the currently identified priority habitats and urban habitats in Epsom & Ewell.

It is important to note that habitats do not generally have distinct boundaries and tend to merge into one another or be contained within other habitats. For example, Epsom Common LNR has several of the habitats listed below distributed across the site.

The table below lists the habitats of principal importance covered under section 41 of the NERC Act (2006) present within Epsom and Ewell

Habitat Type	Priority Habitat name
Arable and horticulture	Arable field margins
Boundary and linear features	Hedgerows
Freshwater	Ponds
Freshwater	Rivers
Grassland	Lowland calcareous grassland
Grassland	Lowland dry acid grassland
Grassland	Potential Lowland meadows. Currently our meadows would be classed as neutral grassland but have the potential to become classified as Lowland Meadows if the correct management continues.
Heathland	Lowland heathland
Wetland	Reedbeds
Woodland	Traditional Orchards
Woodland	Lowland mixed deciduous woodland
Woodland	Wet woodland
Woodland	Wood-pasture and parkland

2.1.1 Habitats of principal importance in Epsom and Ewell

All are listed as habitats of principal importance in England. Full habitat classifications can be found at https://jncc.gov.uk/our-work/uk-bap-priority-habitats/

Arable Field Margins

Arable field margins are herbaceous strips or blocks around arable fields that are managed specifically to provide benefits for wildlife. Examples of this habitat can be found at Langley Bottom Farm (now known as Langley Vale Memorial Woodland) and Northey Fields SNCI.

Hedgerows

A hedgerow is defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less that 20m wide. All hedgerows consisting predominantly (i.e. 80% or more cover) of at least one woody UK native species are covered by this priority habitat. There are numerous examples all over the Borough but particularly in Horton Country Park LNR, Epsom Downs SNCI, Northey Fields SNCI, Priest Hill SNCI and Langley Vale Memorial Woodland SNCI.

Ponds

Epsom and Ewell has remarkably few lakes and ponds and so those found on Epsom Common LNR and the ponds found in several parks and on Horton Country Park LNR are a very scarce and valuable habitat within the Borough.

Priority habitat ponds are defined as permanent and seasonal standing water bodies up to 2ha in extent, which meet certain criteria.
Ponds, which we know qualify, include Great Pond and Blake's Pond on Epsom Common LNR and Field Pond on Horton Country Park LNR.

Rivers

This habitat type includes a very wide range of types, encompassing all natural and near-natural running waters in the UK (i.e. with features and processes that resemble those in 'natural' systems).
These range from torrential mountain streams to meandering lowland rivers. A good example of this is the Hogsmill River and sections of its tributaries. The first section of the river is chalk stream, which is an internationally important habitat.

Lowland calcareous grassland

This consists of a mixture of grasses and herbs occurring on, well-drained, nutrient-poor soils overlaying chalk. For example, Epsom and Walton Downs SNCI. Where grazing has ceased a natural succession of more woody species has developed, which is an important habitat for many species of bird, mammal and invertebrate. However, a well-managed scrub component is essential in maintaining the highest possible levels of Biodiversity on chalk grassland. Examples of this habitat are found at Juniper Hill on Epsom and Walton Downs SNCI.

Lowland Dry Acid Grassland

This typically occurs on nutrient-poor soils with a pH ranging from 4-5.5. It is characterised by a range of plant species such as Heath bedstraw *Galium saxatile,* Sheep's fescue *Festuca ovina*, Common bent *Agrostis capillaris,* Sheep's sorrel *Rumex acetosa,* and Tormentil *Potentilla erecta.* It often has a high cover of bryophytes and can be variable in terms of species richness. Lowland acid grassland often forms a mosaic with dwarf shrub heath (see Lowland Heathland below). Good examples of this habitat can be found on Epsom Common LNR.

Lowland Meadows

The UK has seen a 97% decline of this habitat over the last 60 yrs and the creation of lowland meadows, is an objective of the England Biodiversity Strategy (Biodiversity 2020). Currently, Epsom and Ewell does not have this habitat but the hay meadows in Horton Country Park LNR are being managed as such and are gradually reaching the standard of the priority habitat classification. Indeed, there are areas within the meadows that are species-rich and they will be managed to continue this improvement.

Lowland Heathland

This is a broadly open landscape on impoverished, acidic mineral and shallow peat soil, which is characterised by the presence of plants such as heathers and dwarf gorses. Examples of this habitat lie in the remnant heathland on Epsom Common LNR.

In terms of distinguishing between lowland heathland and genuine acid grassland, less than 25% dwarf shrub cover should be assessed as grassland, over 25% as heathland.

Reedbeds

Reedbeds are designated as wetland dominated by Common Reed *Phragmites australis*, wherein the water table is at or above ground level for most of the year. Currently there is only one area in Epsom and Ewell where this is present, the recently created wetland at the southern end of Horton Country Park LNR. It is hoped that during the lifetime of this plan a wetland scheme with reedbeds incorporated, will be created on the area known as Chamber Mead on the Hogsmill LNR.

Lowland Mixed Deciduous Woodland

Woodland is defined as vegetation dominated by trees more than 5m high when mature, forming a distinct though sometimes open canopy, with canopy cover more than 25%. Lowland mixed deciduous woodland includes woodland growing on the full range of soil conditions, from very acidic to base-rich, and takes in most semi-natural woodland in southern and eastern England. It occurs largely within enclosed landscapes, usually on sites with well-defined boundaries, at relatively low altitudes, although altitude is not a defining feature.

Epsom and Ewell contains several areas of woodland although none is particularly large. Ancient woodlands (existed before 1600 AD) can be found across the Borough, although the majority (6 of 13) are within Horton Country Park LNR. Woodland can be found on the other large open space areas such as Epsom Downs, Nonsuch Park and Epsom Common LNR.

Traditional Orchards

Traditional orchards are defined, for priority habitat purposes, as groups of fruit and nut trees planted on vigorous rootstocks at low densities in permanent grassland; and managed in a low intensity way. We have two examples of traditional orchards in Epsom and Ewell, both found in Horton Country Park LNR. Orchards are hotspots for Biodiversity supporting a wide range of wildlife.

Wet woodland

This habitat occurs on poorly drained or seasonally wet soils, usually with alder, birch and willows as the predominant tree species, but sometimes including ash, oak, pine and beech on the drier riparian areas. In Epsom and Ewell there are small areas of this type of woodland found on the margins of Great Pond on Epsom Common LNR.

Wood-pasture and parkland

This habitat is a mosaic of habitats valued for their trees, especially veteran and ancient trees, and the plants and animals that they support. Grazing animals are fundamental to the existence of this habitat. Specialised and varied habitats within wood-pasture and parkland provide a home for a wide range of species, many of which occur only in these habitats, particularly insects, lichens and fungi, which depend on dead and decaying wood. Individual trees, some of which may be of great size and age, are key elements of the habitat and many sites are also important historic landscapes. In Epsom and Ewell this habitat is found on Epsom Common LNR.

2.1.2 Urban habitats Important to Epsom and Ewell's green infrastructure and habitat connectivity

Managed Greenspace: This encompasses a huge variety of areas managed primarily for recreation or amenity. It includes residents' gardens, town parks, playing fields and open spaces, green corridors, golf courses, allotments, cemeteries and churchyards, school and hospital grounds, roadside verges, street trees and corporate grounds. Within this category the greenspace might be private or managed by local authorities or local communities. It is an aim of this plan to investigate the possibility of managing our urban greenspaces in a more biodiverse way. In Epsom and Ewell, a change in grassland management has significant potential to increase the Biodiversity of the Borough. To achieve this, it will require changes to the management of roadside verges, along with larger areas of grassland within our parks and open spaces. It is also an aim of this plan to communicate with our residents as to how they can assist with improving the Biodiversity of the Borough. Back gardens can provide key links to ensure good connectivity between habitats. Those residents living on chalk soil in particular could be advised on how to manage the high Biodiversity potential within their gardens.

Regenerating Habitats: Human induced or naturally regenerating habitats occur on all types of disturbed ground. There is a process to some extent dependent on local conditions by which land is successively dominated, first by annual plants and then tall herbs or "ruderal" species. Left to its own devices such an area will after 12 years or so, become scrub and ultimately woodland. Examples include industrial land, railway sidings and embankments abandoned allotments, neglected gardens, demolition sites, and other vacant plots. In Epsom and Ewell, these areas are particularly important for reptiles and amphibians, which are protected species and can support other important plant and animal species. Related habitats include "hard surfaces" such as buildings, roofs, walls and gravestones, all of which can be colonised by plants; and tunnels, which are frequently used by bats as roosting sites. Churchyards can be especially valuable for mosses and lichens and may have species-rich grassland communities.

Areas of urban semi-natural habitat: These persist in the urban areas from a more rural past: e.g. various unimproved grasslands, heathland, ancient species-rich hedgerows and woodland. These areas can support a varied range of plant and animal life, some of which may be protected.

Urban wetlands: Rivers, brooks, ponds, and springs, canals, flooded mineral workings, reservoirs, artificial lakes and sewage treatment works. Epsom and Ewell contains much of the catchment of the Hogsmill River including several tributaries and associated ponds. As mentioned in the priority habitat section, ponds are a rare resource in Epsom and Ewell so garden ponds also make up a vital contribution to this habitat within the Borough.

2.2 Species of principal importance

Under section 41 of the NERC Act 943 species of principal importance are listed in the following groups:
-Birds
-Fish (excluding purely marine species)
-Fungi (including lichens)
-Herptiles (amphibians and reptiles)
-Marine species
-Non-vascular plants
-Terrestrial invertebrates
-Terrestrial Mammals
-Vascular plants

Within the habitats listed above live a wide range of plant and animal species. 113 species of principal importance are currently (2020) recorded within Epsom and Ewell (See Appendix 4) however this may well be an underestimate and there is a need to improve the available data and to constantly monitor and research the Borough's Biodiversity. Species of principal importance can be conserved by protecting the habitat in which they are found. Importantly, the monitoring of these species can be used as an indicator of success with regard to managing the habitat and the species itself. Guided by the NERC act, species of principal importance will be identified and targeted as resources permit and more data and knowledge is gained about the species present in Epsom and Ewell. Separate species action plans may well be produced in the future for species of principal importance within the Borough.

For the purpose of highlighting and publicising the importance of conserving Biodiversity in Epsom and Ewell, the previous plan used the Stag Beetle as a totemic species, due to it being a national priority species with a stronghold in Epsom and Ewell. We will continue to use the Stag Beetle for this purpose along with the Oak Tree due to its importance for supporting Biodiversity with the Borough.

Stag Beetle - Lucanus cervus

Oak Tree – Quercus robur
on the Hogsmill Local Nature Reserve

3.0 CURRENT STATUS AND DISTRIBUTION OF BIODIVERISTY WITHIN EPSOM AND EWELL

The Borough of Epsom and Ewell covers an area of 3,411 hectares and with a population of approx. 80,000, is the smallest most densely populated District in the County of Surrey. Yet within its borders, the Borough has 12 out of the 19 priority habitats and is almost a microcosm of Surrey.

The wide variety of habitats is a consequence of two main factors. Firstly, the borough's geology which is characterised by a North/South divide with the chalk of 'Epsom Downs' in the South and to the North the London Clay of the Thames basin which begins at the foot of the Downs. Secondly, 42% of the borough is 'Green Belt' much of which is publicly accessible and currently managed to both protect and enhance Biodiversity.

Fungi on Epsom Common Local Nature Reserve

3.1 Protected sites in Epsom & Ewell

Within Epsom and Ewell there are sites designated for their Biodiversity value (See Map 1 below) and which currently help to protect some of the habitats identified in Chapter Two. The Borough has **13 Sites of Nature Conservation Importance (SNCI)**.

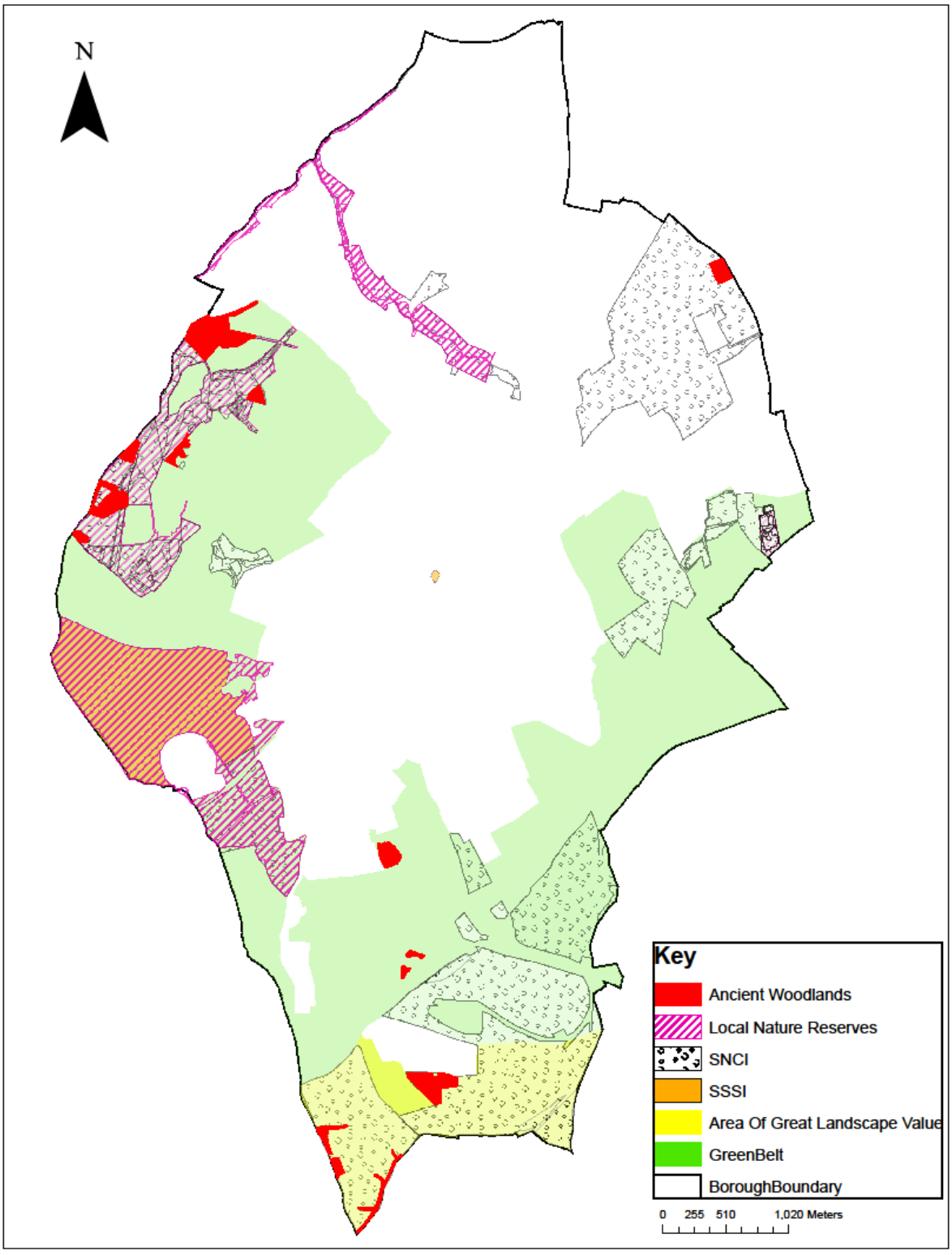
Included within these are:
2 Sites of Special Scientific Interest (SSSI), most of Epsom Common and Stones Road Pond. A SSSI is a nationally important site and affords a very high degree of protection.
4 Local Nature Reserves (LNR), including Epsom Common which is Surrey's largest LNR. The other LNRs are Horton Country Park LNR, The Hogsmill LNR and Howell Hill LNR.
13 Ancient Woodlands (currently identified 2011), the majority of which can be found in Horton Country Park LNR.
2 Surrey Wildlife Trust Reserves, Howell Hill LNR and Priest Hill.
2 Woodland Trust Reserves, Warren Farm and Langley Vale Memorial Woodland

SNCIs without any other designation include the very large areas of semi-natural managed open space Epsom and Walton Downs, Epsom Downs Golf Course, Nonsuch Park and Northey Fields and some smaller sites including Livingstone Park, the Thames Water covered reservoir and Epsom Cemetery.

Sites of Nature Conservation Importance were designated in the 1990's by the Local Sites Partnership and reviewed in 2013. Whilst SNCI is not a statutory designation they arose from national guidance on planning policy. Incorporated into the Epsom and Ewell 'Local Plan' they have helped protect Biodiversity by guiding planning decisions.
Along with national legislation protecting wildlife, for example the 'Wildlife and Countryside Act, there are also protective designations such as 'Green Belt', 'Ancient Woodland', 'Protected Hedgerows, 'Tree Preservation Orders' and areas identified as 'Strategic Open Space.' EEBC also affords Biodiversity some protection by limiting and controlling development. In addition, some land in the borough is owned by trusts, which aim to protect and enhance Biodiversity. For example, Priest Hill, owned by Surrey wildlife Trust and Langley Vale Memorial Woodland, owned by the Woodland Trust.

Please Note:- Appendix 3 lists by site all the currently known priority habitats and urban habitats in Epsom and Ewell. In addition this plan has set as a 'Target' - Target 2.1: Map all priority habitats in Epsom & Ewell.

Thames Water covered reservoir SNCI



Map 1
Sites designated for their biodiversity value
in Epsom & Ewell 2015

4.0 CURRENT ACTION

4.1 Existing Biodiversity initiatives and delivery mechanisms in Epsom & Ewell

A local BAP is not intended to be a substitute for existing Biodiversity initiatives. It is vital that during the drafting of a BAP other Biodiversity initiatives within Epsom and Ewell and neighboring authorities are taken in to account. The local BAP needs to aid and support other activities and the people or organisations delivering them. The table below shows all the known (2020) activities either conserving, enhancing or monitoring Biodiversity in Epsom and Ewell, along with the delivery organisations.

Activity	**Delivery**
Epsom & Ewell Green Spaces Strategy	Epsom & Ewell Borough Council
Epsom & Ewell Sustainability Statement	Epsom & Ewell Borough Council and Environment Agency
Protection of Sites of Nature Conservation Importance in Epsom and Ewell	Epsom and Ewell Borough Council, Natural England, Surrey County Council, Surrey Wildlife Trust, Environment Agency,
Epsom Common Local Nature Reserve Management Plan 2016-2116.	Epsom & Ewell Borough Council, Natural England, Epsom Common Association, Lower Mole Partnership
Application underway for Countryside Stewardship Funding for Epsom Common and Horton Country Park LNRs. Investigating if Hogsmill LNR will be eligible. Next round of applications open in summer 2025.	Epsom & Ewell Borough Council, Natural England, Forestry Commission and Epsom Common Association
Epsom Common and Horton Country Park Local Nature Reserves Basic Payment Scheme. Payments are gradually being reduced and will end in 2027.	Epsom & Ewell Borough Council and Natural England
Epsom and Walton Downs and Epsom Golf Course Management Plans	Epsom & Ewell Borough Council, Epsom Downs Conservators, Lower Mole Partnership, Butterfly Conservation
Horton Country Park Local Nature Reserve Management Plan 2017-2117	Epsom & Ewell Borough Council, Friends of Horton Country Park, Lower Mole Partnership, Natural England
Hogsmill Local Nature Reserve 2017-2117	Epsom & Ewell Borough Council, Friends of the Hogsmill, Lower Mole Partnership
Nonsuch Park Management Plan. Due to Scheduled Ancient Monument Status, a Countryside Stewardship Agreement may need to be set up.	Joint Management Committee, Epsom & Ewell Borough Council, London Borough of Sutton, Surrey County Council, Natural England, Historic England
Howell Hill and Priest Hill Nature Reserves	Surrey Wildlife Trust
Northey Fields	Surrey County Council
Warren Farm and Langley Vale Memorial Woodland	Woodland Trust

Stones Road Pond Site of Special Scientific Interest	Surrey County Council, Epsom and Ewell Borough Council, Natural England, Herpetological Conservation Trust, Lower Mole Partnership
Park's management plans including Livingstone Park SNCI	Epsom & Ewell Borough Council
Monitoring and protection of birds	Epsom & Ewell Borough Council, Natural England, Surbiton and District Bird Watchers, RSPB, Surrey Biological Information Centre, Epsom Common Association,
Monitoring and protection of mammals	Epsom & Ewell Borough Council, Natural England, East Surrey Badger Group, Surrey Bat Group, Surrey Mammal Group, Surrey Biological Information Centre, Epsom Common Association
Monitoring and protection of invertebrates	Epsom & Ewell Borough Council, Natural England, Surrey Biological Information Centre, City of London, Epsom Common Association,
Monitoring and protection of herptiles and fish	Epsom & Ewell Borough Council, Natural England Epsom Common Association, Environment Agency, South East Rivers Trust, Herpetological Conservation Trust, Surrey Amphibian and Reptile Group, Surrey Biological Information Centre
Monitoring and protection of plants	Epsom & Ewell Borough Council, Natural England, Surrey Biological Information Centre, Epsom Common Association, Forestry Commission, Surrey Botanical Society
Schools wildlife gardens	Epsom & Ewell Borough Council, Surrey County Council
Gardens	Residents

5.0 FACTORS AFFECTING BIODIVERSITY IN EPSOM AND EWELL

Historically the greatest impact on Biodiversity in the borough has been the scale of human settlement. For many centuries Epsom and Ewell were small rural settlements surrounded by land that was either arable field, pasture, woodland or common waste. The impact on Biodiversity was likely to have been neutral perhaps even positive. Indeed many of the older farming practices actually promote Biodiversity and increase the diversity of flora and fauna. With the arrival of the railway in the mid nineteenth century, the scale of human settlement increased dramatically until the present day, where much of the land has been built upon. Luckily, a significant proportion of land in the Borough is in public ownership and managed as public open space helping to protect Biodiversity. There is little doubt however that Biodiversity has been harmed by the urbanisation of the Borough and today the threat to Biodiversity continues with pressures to keep on building more property. Conversely, it should also be noted that development should not always be seen as negative and may in fact offer considerable opportunities for enhancing Biodiversity within the Borough. Additionally in recent years, it has been recognised that man's global impact on the environment is threatening to cause a significant change in climate, which may have a profound and possibly negative impact on the Borough's Biodiversity (as mentioned previously in section 1.7.)

5.1 Factors affecting priority and urban habitats

The list in the table below is not intended to be exhaustive but serves to illustrate the breadth of factors that this plan needs to assess and prioritise with a view to deciding what actions to take. Interestingly there appear to be few if any wholly positive factors, with a number having the ability to be positive or negative. This highlights the Importance of managing such factors to ensure they have a positive or at worst neutral Impact.

Factor	Positive	Negative	Positive Or Negative
Land use change			√
Habitat fragmentation		√	
Land/habitat featuremanagement regime			√
Natural succession e.g. scrub encroachment			√
Invasive species		√	
Recreational Pressure		√	
Pollution (atmosphereic, water,light)		√	
Climate Change			√
Public awareness			√
Financial Resources			√

Development pressure			√
Lowering of the water table		√	
Use of pesticides			√
Use of fertilisers		√	
Soil erosion		√	
Nutrient enrichment		√	
Loss of ancient trees or hedgerows/lack of younger trees		√	
Vandalism		√	

6.0 POTENTIAL

Identifying how Biodiversity can be protected and enhanced through setting objectives and targets is the key aim of this plan. Before moving on to that stage it is important to identify the main areas where the potential for improvement lies and any limiting factors.

The recognition of Biodiversity as a key decision-making factor in Local Authority Planning Policy and Development Control roles makes a very significant contribution to ensuring the long-term protection and enhancement of Biodiversity across the borough. Potential is further enhanced by legislation making public bodies statutorily responsible for incorporating the protection and enhancement of Biodiversity into their business models and policies.

We can also tie in with findings from the publication written in 2018 by the Surrey Nature Partnership via Surrey Wildlife Trust, The State of Surrey's Nature. It provides a current stock-take of the county's Biodiversity. The report aims to quantify Surrey's most threatened wildlife but also celebrates why Surrey's Biodiversity is so special. This will help clarify responsibilities at the County level and serve to further inform our priorities at the local level. It will also be a baseline from which to measure future Biodiversity trends and changes.

6.1 Legislation and Policies **

The Environment Act 2021 has made it mandatory that all planning permissions granted in England (unless exemptions apply) will have to deliver at least 10% Biodiversity Net Gain (BNG). BNG will be measured using Defra's biodiversity metric and all off-site and significant on-site habitats will need to be secured for at least 30 years. This sits alongside:

- a strengthened legal duty for public bodies to conserve and enhance biodiversity,
- new biodiversity reporting requirements for local authorities, and
- mandatory spatial strategies for nature: Local Nature Recovery Strategies or 'LNRS'.

6.1.1 Biodiversity Net Gain **

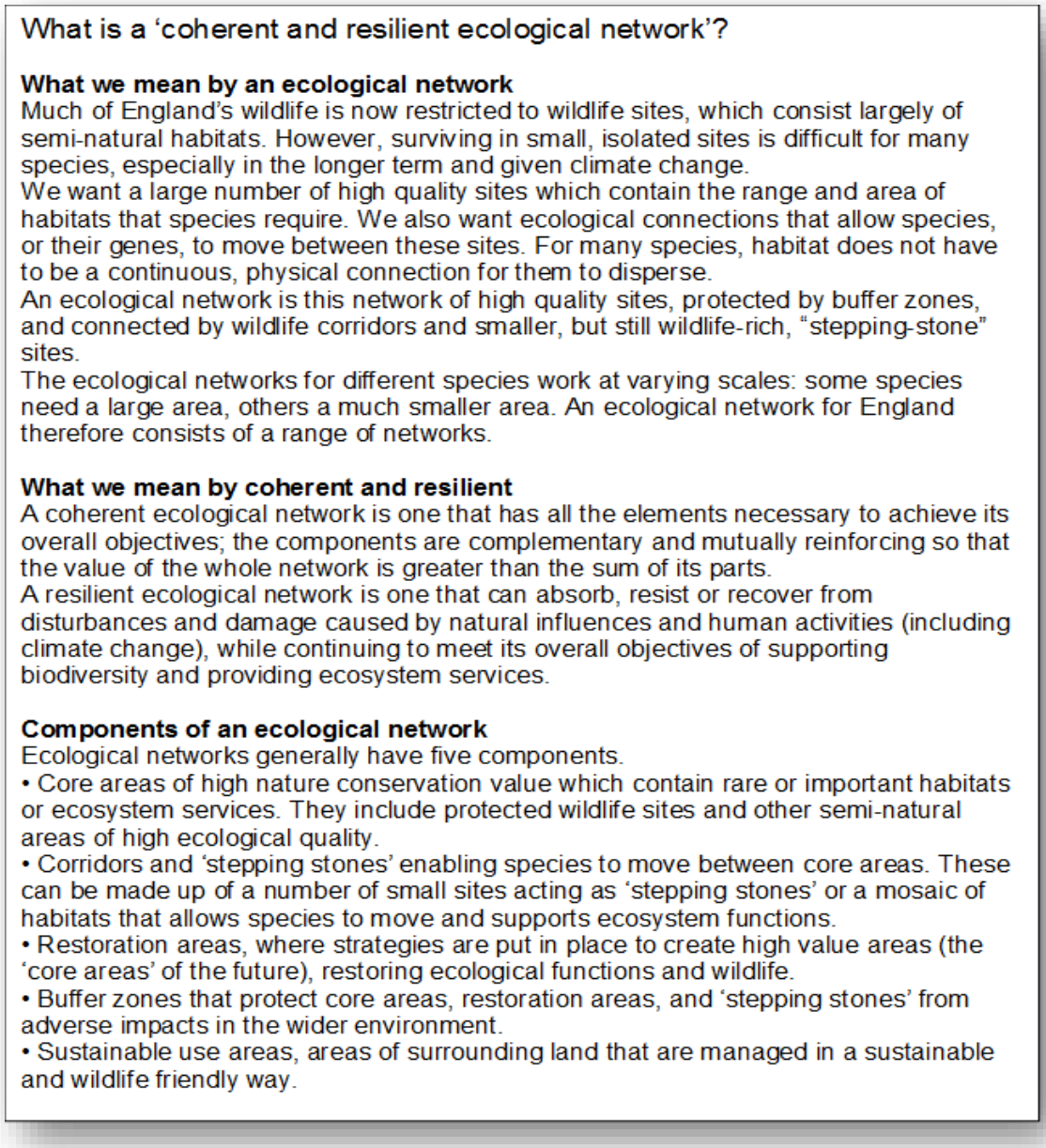
Biodiversity net gain requires development to ensure habitats for wildlife are enhanced and left in a measurably better state than they were in pre-development. The condition of habitats must be assessed before submitting plans, which demonstrate how they will improve Biodiversity – such as through improved habitats, the creation of green corridors, planting more trees, or forming local nature spaces. Biodiversity net gain can be achieved on-site, off-site or through a combination of on-site and off-site measures. Biodiversity improvements on site will be encouraged, but where they are not possible, developers will need to pay a levy for habitat creation/improvement elsewhere.

The sites that can benefit from BNG funds should be identified across the borough to ensure a strategic approach that aims to maintain good habitat connectivity as the key priority, as well as enhancing biodiversity within sites. These sites should then be registered as habitat banks on the national register.

6.1.2 Green Infrastructure

Epsom and Ewell should aim to provide a network of wherever possible, publicly accessible interconnected green spaces to facilitate the dispersal of species across the Borough, a 'coherent and resilient ecological network'. Taking on the principles laid out in the Lawton Report (2010), Bigger, Better and more joined up.

In Epsom and Ewell, it is vital to prevent our larger open spaces and nature reserves, where the majority of priority habitats lie, from becoming islands of wildlife importance surrounded by an urban sea. Effective management of our green infrastructure can ensure our green space fulfills a variety of important functions including provision for biodiversity, but crucially also vital green spaces that deliver health, recreational and cultural benefits on a very significant scale.
The government has set out these principles as ones to follow in the NPPF and their Biodiversity 2020: A strategy for England's wildlife and ecosystem services, a section of which is seen below:



What is a 'coherent and resilient ecological network'?

What we mean by an ecological network
Much of England's wildlife is now restricted to wildlife sites, which consist largely of semi-natural habitats. However, surviving in small, isolated sites is difficult for many species, especially in the longer term and given climate change.
We want a large number of high quality sites which contain the range and area of habitats that species require. We also want ecological connections that allow species, or their genes, to move between these sites. For many species, habitat does not have to be a continuous, physical connection for them to disperse.
An ecological network is this network of high quality sites, protected by buffer zones, and connected by wildlife corridors and smaller, but still wildlife-rich, "stepping-stone" sites.
The ecological networks for different species work at varying scales: some species need a large area, others a much smaller area. An ecological network for England therefore consists of a range of networks.

What we mean by coherent and resilient
A coherent ecological network is one that has all the elements necessary to achieve its overall objectives; the components are complementary and mutually reinforcing so that the value of the whole network is greater than the sum of its parts.
A resilient ecological network is one that can absorb, resist or recover from disturbances and damage caused by natural influences and human activities (including climate change), while continuing to meet its overall objectives of supporting biodiversity and providing ecosystem services.

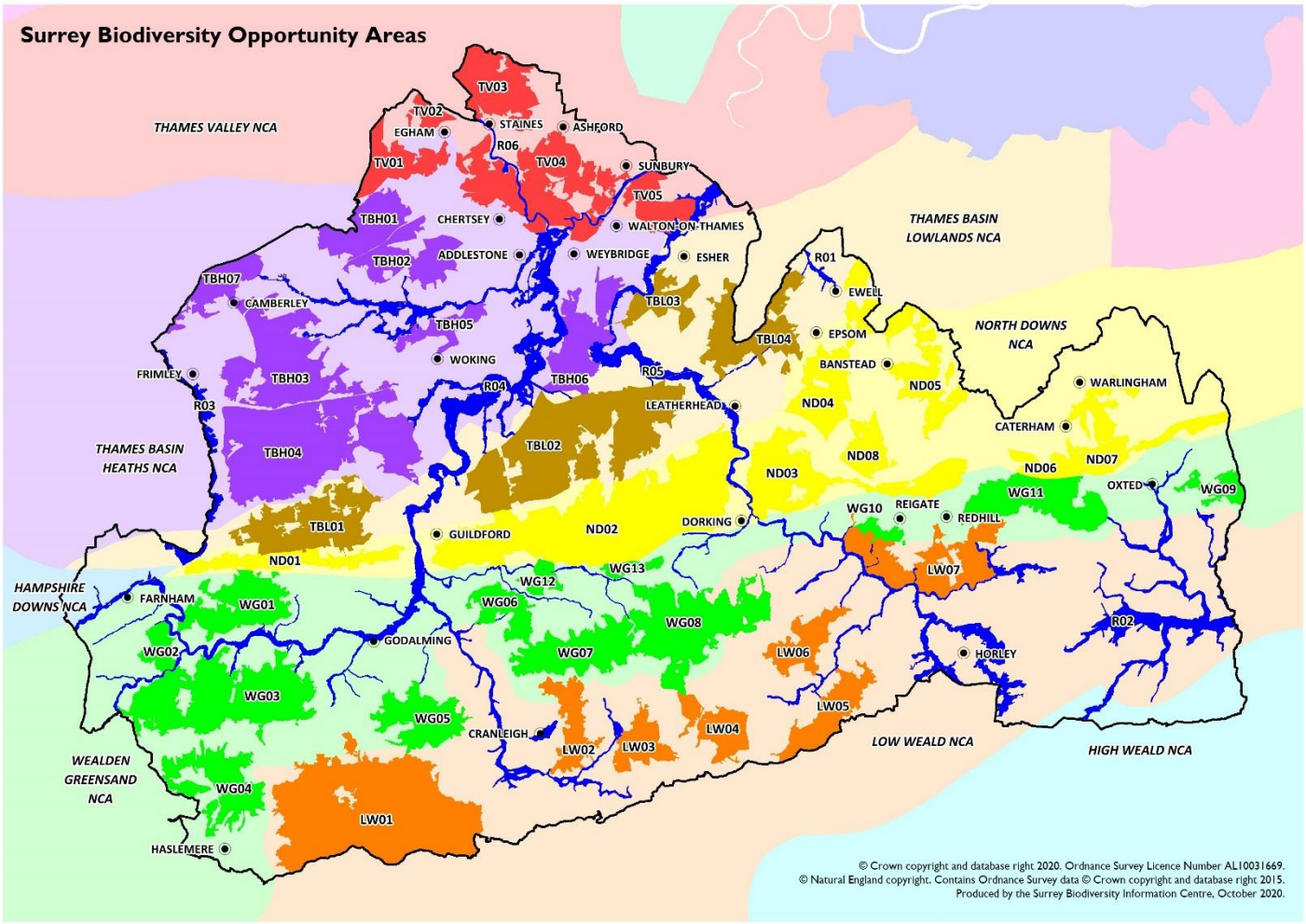
Components of an ecological network
Ecological networks generally have five components.
• Core areas of high nature conservation value which contain rare or important habitats or ecosystem services. They include protected wildlife sites and other semi-natural areas of high ecological quality.
• Corridors and 'stepping stones' enabling species to move between core areas. These can be made up of a number of small sites acting as 'stepping stones' or a mosaic of habitats that allows species to move and supports ecosystem functions.
• Restoration areas, where strategies are put in place to create high value areas (the 'core areas' of the future), restoring ecological functions and wildlife.
• Buffer zones that protect core areas, restoration areas, and 'stepping stones' from adverse impacts in the wider environment.
• Sustainable use areas, areas of surrounding land that are managed in a sustainable and wildlife friendly way.

In Epsom and Ewell, our core areas are our designated sites, SSSIs, LNRs and SNCIs. Our corridors and stepping stones include back gardens, railway embankments, parks and open spaces, hedgerows etc. It is the aim of this plan to highlight the importance of such areas and designate restoration areas, buffer zones and sustainable use areas to protect the Borough's Biodiversity.

6.1.3 Biodiversity Opportunity Areas

The Surrey Nature Partnership's Biodiversity Working Group have identified areas called Biodiversity Opportunity Areas (BOAs) based on broad habitat types with the aim of protecting and enhancing the county's Biodiversity on a landscape scale. They identify the most important areas for wildlife conservation remaining in Surrey and each include a variety of habitats, providing for an 'ecosystem approach' to nature conservation across and beyond the county boundaries. Improved habitat management in these areas, as well as efforts to restore and re-create Priority Habitats, will be most effective in enhancing connectivity to benefit recovery of Priority Species in a fragmented landscape. It is seen therefore as the way to achieve a "coherent and resilient ecological network" in Surrey. BOAs are protected under Epsom and Ewell's Local Plan and are material considerations in planning applications.

Epsom and Ewell falls in to three Surrey BOAs; **Thames Basin Lowlands (TBL04)**, **North Downs (ND04) and River Biodiversity Opportunity Area (R01).** More detail can be found in Appendix 5.



6.1.4 Local Nature Recovery Strategies **

Developing the idea of Biodiversity Opportunity Areas, Local Nature Recovery Strategies (LNRS), which have been introduced by the Environment Act 2021, are a spatial or mapped strategy that identify the key location for actions that will benefit habitats and species and drive nature's recovery, while also seeking to deliver wider environmental benefits such as flood mitigation and access to green space.

All strategic planning must have regard for the LNRS in plan making and decisions. It should be noted that 'Have Regard' will change to **'Take Account'** once the relevant section of the Levelling up and Regeneration Act is Enacted. It is expected to be enacted later in 2025, when broader planning reform is introduced – guidance will be renewed at that point.

The current guidance can be found in the Natural Environment section of planning practice guidance on GOV.UK which explains how local planning authorities (LPAs) should interpret their legal duty to "have regard" to LNRSs and how LNRSs should be used to help meet existing national planning policy on protecting and enhancing biodiversity. Some of the key points to highlight from the guidance include:

- **For local plan development:** "Local planning authorities should be aware of those areas mapped and identified in the relevant Local Nature Recovery Strategy and the measures proposed in them and consider how these should be reflected in their local plan. In doing so, they should consider what safeguarding would be appropriate to enable the proposed actions to be delivered, noting the potential to target stronger safeguarding in areas the local planning authority considers to be of greater importance. This will enable local planning authorities to support the best opportunities to create or improve habitat to conserve and enhance biodiversity, including where this may enable development in other locations.''

- **For planning decisions**: "The Local Nature Recovery Strategy is an evidence base which contains information that may be a 'material consideration' in the planning system, especially where development plan documents for an area pre-date Local Nature Recovery Strategy publication. It is for the decision-maker to determine what is a relevant material consideration based on the individual circumstances of the case. In cases where there is a draft Local Nature Recovery Strategy that has been consulted upon but not yet finalised and published, the draft strategy may contain useful evidential information that can support appropriate decision making."

As mentioned in section 1.6, Surrey Country Council is the responsible body tasked with creating the LNRS for Surrey, to which Epsom and Ewell will have to take account of. They have consulted widely with local people and stakeholders and the Boroughs and Districts have been able to play a supporting role in the creation of the LNRS for Surrey. It is hoped the first strategy will be finalised in 2025. Further guidance for Local Authorities on how to interpret the LNRS will be made available once they are published.

6.1.5 Statutory Duty to Report on Biodiversity **

Local authorities and local planning authorities must write and publish a biodiversity report. For local authorities and local planning authorities, the end date of our first reporting period should be no later than 1 January 2026. After this, the end date of each reporting period must be within 5 years of the end date of the previous reporting period.
The report is a chance to communicate how our organisation is helping to improve the environment and show the positive change we are making.

By law, our report must include:

- a summary of the action we have taken to comply with the biodiversity duty
- how we plan to comply with the biodiversity duty in the next reporting period
- any other information we consider appropriate

Reports from local planning authorities must also include:

- the actions we have carried out to meet biodiversity net gain obligations
- details of biodiversity net gains resulting, or expected to result, from biodiversity gain plans you've approved
- how we plan to meet biodiversity net gain obligations in the next reporting period

Epsom & Ewell was required to make clear what actions we propose to take by 1st January 2024. This Biodiversity Action Plan provides us with this information and will be a helpful guide to providing the information we need to report on, by January 2026.

6.1.6 Planning and Infrastructure Bill **

The Planning and Infrastructure Bill is central to the government's plan to deliver economic growth and will include fast tracking planning applications. It will be a key priority for the Council to understand the implications if and when it becomes an Act of parliament and ensure local policies are put in place to mitigate any negative impacts.

6.2 Delivery **

Having access to a workforce which is expert and knowledgeable about the habitats and wildlife we have in Epsom & Ewell is vital. Over the years we have built up good relationships with key contractors, ecologists and volunteer and wildlife interest groups, such as the Epsom Common Association and their volunteer group the EcoVols and our own Countryside Team Volunteers. It will be important to foster these relationships and our current partnerships and maximise any new opportunities that may arise.

Support for the Lower Mole Partnership should be prioritised due to the funding provided by EEBC and the long standing and productive relationship with the partnership, now in its fifth decade. They have been helping to manage the Borough's biodiversity since 1983 and have offered invaluable advice and assistance to the Council. They were and remain instrumental in helping to reintroduce and manage grazing on Epsom Common, carry out woodland management in Horton Country Park, improving public access to our open spaces and restore chalk grassland on Epsom Downs. These are just a few examples of where they have made a positive difference to Biodiversity, along with the health and well-being of their volunteers and our visitors.

They are funded by and work in partnership with Epsom & Ewell Borough Council, Elmbridge Borough Council, Mole Valley District Council, Royal Borough of Kingston Upon Thames and Surrey County Council. The work of the partnership is coordinated and led by paid staff with volunteers delivering significant improvements on the ground.

The Partnership has built up a large and enthusiastic, dedicated volunteer group which carries out a wide range of practical conservation tasks to improve and maintain the local countryside, three days a week throughout the year.

The Partnership has a high standard and broad spectrum of skills for carrying out targeted specialist local countryside management work including landscape enhancements, woodland management and pond restoration as well as access initiatives such as the Thames Down Link footpath.

In addition to practical work, the Partnership gives advice to private and public landowners and closely supports many local countryside Friends groups.

6.3 Further opportunities

The following list identifies further opportunities for protecting and enhancing Biodiversity across the borough, which will aid in deciding upon this plan's objectives, targets and actions.

-An active Epsom and Ewell Biodiversity Working Group
-More comprehensive use of GIS mapping to record the extent of Biodiversity.
-Production and implementation of management plans for habitats of principal importance.
-More comprehensive recording and monitoring of habitats and enhancement initiatives.
-Implementation of the Local Plan
-More active involvement of residents, schools and local businesses in protecting and enhancing Biodiversity. Focus on using social media to raise awareness.

6.4 Costs

It should be noted that managing (conserving and enhancing) the Borough's Biodiversity and on-going initiatives require adequate resourcing. Over the lifetime of the previous plan, progress was made in managing the Borough's Biodiversity, mainly using externally sourced funding, with volunteers playing an increasingly significant role. In chapter 7 under objective 4, this plan sets out ways we can investigate potential future funding streams which is key to ensuring adequate resources are provided.

It is an objective of this plan to continue securing income streams and to highlight that investing in our local Biodiversity is a long-term investment in the future of our planet and its ability to support human lives.

7.0 OBJECTIVES AND TARGETS **

The objectives have been developed through an assessment of the information outlined in the preceding chapters of this report and have been set by the Biodiversity Action Plan Working Group.

Targets are the broad measures for achieving the objectives. The criteria for targets is that they should preferably be:
Specific (but not site specific)
Measurable (as well as achievable and relevant)
Time bound (within the next 50 years)

Objective 1: Raise awareness and engagement in Biodiversity and develop partnerships to ensure that the conservation and enhancement of Biodiversity in Epsom and Ewell maintained in the long term.

Target	Progress
1.1: EELBAP working group to continue to meet regularly and maintain a presence at the meetings of the Surrey Nature Partnership Biodiversity Working Group.	- Working group continues to meet three times a year. - Surrey Nature Partnership meetings also attended. - Membership of Association of Local Government Ecologists and Surrey Ecologist Group.
Target 1.2: Continue to encourage and support active groups and volunteers involved in efforts to conserve and enhance Biodiversity in Epsom and Ewell.	- The Countryside Team leads their own practical conservation volunteers who meet every Thursday. - They also lead a team of surveying and monitoring volunteers and support others e.g. Butterfly Conservation. - Local community groups associated with the nature reserves are also supported along with the Lower Mole Partnership.
Target 1.3: Set up a Forum that meets annually, to discuss key issues regarding the status of Biodiversity in Epsom and Ewell. To include groups active in Epsom and Ewell, such as Surrey Wildlife Trust, Woodland Trust, Surrey Botanical Society, Butterfly Conservation, Dragonfly Society, South East Rivers Trust, Surrey Amphibian Reptile Group, Lower Mole Partnership, Surbiton and District Bird Watching Society, East Surrey badger group etc.	- Rather than setting up a forum, a regular Recorder Day is organised with many of the organisations mentioned being invited. - Regular contact is maintained with the Surrey Nature Partnership Biodiversity Working Group. - Members of the group attend the Surrey Recorder Day organised by Surrey Biological Information Centre (SBIC).
Target 1.4: Encourage and support awareness raising initiatives and partnerships that improve Biodiversity awareness amongst private landowners and businesses.	- Corporate groups attend to carry out volunteer work on site, largely coordinated by the Lower Mole Partnership.
Target 1.5: Raise awareness and engagement in Biodiversity by improved use of social media;	- Annual recorder Day since 2022.

organise events such as a BioBlitz; organise talks throughout the year on key issues/successes. Key messages could include: • Celebrating success • What species to look out for • Promote citizen science e.g. recording species via iRecord/iSpot • Importance of key habitats e.g. Chalk Streams and Chalk Grasslands • Pests/non-natives and diseases to look out for • Responsible dog walking • Pressure to ensure positive management • Wildlife gardening and danger of using pesticides • Promote Stag Beetle and Oak as totemic species and highlight the drastic global reduction in the population of insects as a totemic issue • The wider benefits to the community of improving Biodiversity such as: - Promote the economic benefits of conserving and enhancing Biodiversity through working with partners to disseminate the results of Natural Capital and Ecosystem Services research. - Promote the health and wellbeing benefits of having good access to nature and raise awareness of the opportunities to access nature in Epsom and Ewell, through local parks and open spaces and through green infrastructure. - Encourage local schools to have nature friendly grounds and promote pupil contact with their local green spaces.	- Improved social media coverage in conjunction with EEBC comms team to educate residents on key messages/campaigns. - Environmental education sessions with local schools and youth groups. - New walking trail set up in Horton Country Park using Bloomberg App, in partnership with the Culture and Heritage team. - New sculptures installed in Horton Country Park with a view to setting up a wildlife trail. - Independent wildlife walk provider supported to set up a programme of walks on the Nature Reserves. - Epsom Common Association supported to provide a programme of guided walks. - Local environmental events attended e.g. EcoFair. - The Countryside Team provides a programme of walks and events and provides talks to local groups.

Objective 2: Ensure the conservation and enhancement of protected sites*, plus habitats and species of principal importance**

*Protected sites include Sites of Special Scientific Interest (SSSIs), Sites of Nature Conservation Importance (SNCIs), Local Nature Reserves (LNRs), Ancient Woodlands, Biodiversity Opportunity Areas (BOAs)

**Habitats and Species of principal importance as listed in the Natural Environment and Rural Communities Act 2006 (NERC), Habitats and Species protected under the Wildlife and Countryside Act 1981 and Conservation of Habitats and Species Regulations 2018 as amended.

Target	Progress
Target 2.1: Map all priority habitats and species across the Borough. Regularly review their management and promote the use of management plans and positive Biodiversity management techniques e.g. timing hedgerow cutting correctly, cutting and clearing grassland, encouraging appropriate public access. Ensure actions to conserve Biodiversity across the Borough are recorded.	- Priority habitats are mapped within the Nature Reserves and SNCIs, the majority of which have management plans which are reviewed every 5 or 10 yrs. The mapping of the wider borough was something that was being carried out by the Surrey Biological Information Centre (SBIC). More recently, as part of the creation of the LNRS, the whole of Surrey's priority habitats and designated sites have been mapped. - A key improvement has been to purchase our own flail collector enabling the cutting and clearing of grassland across not only Epsom Common and Horton Country Park but also the Hogsmill Local Nature Reserve, Epsom and Walton Downs, Epsom Downs Golf Club and Nonsuch Park. - A feasibility study is being written, investigating the possibility of reintroducing grazing to an important area of chalk grassland on Epsom and Walton Downs. In the meantime, more volunteer effort has gone in to manage the habitat by Countryside Team, Lower Mole Partnership and Butterfly Conservation. - Lower Mole Partnership and Countryside Team Vols working at Stones Rd SSSI and buffer zone to maintain habitat. Medium population of Great Crested Newts confirmed.
Target 2.2: Work with partners to identify a Nature Recovery Network, which will include sites for habitat restoration/creation/designation or species reintroductions when opportunities arise.	- Full engagement in the creation of Surrey's Local Nature Recovery Network and previous to that the management and biological surveying across the Biodiversity Opportunity Areas. - A key success is the creation of Chamber Mead Wetland on the Hogsmill Local Nature Reserve to which Water Voles are due to be reintroduced in July 2025. - Working with the Newt Partnership as part of the District Level Licensing approach to dealing

	with planning applications concerning Great Crested Newts, to create new ponds on Horton Country Park and Epsom Common.
Target 2.3: Identify, enhance and protect green infrastructure and fragmented habitats. Promote positive Biodiversity management techniques in these areas and ensure actions are recorded.	- Manor Park Open Space has been highlighted as a key habitat connection between Horton Country Park and Epsom Common LNRs. Work has taken place to survey the site and propose it as a candidate SNCI. Tree planting has been carried out around the southern boundary.
Target 2.4: Ensure the planning process protects and enhances areas currently recognised for their nature conservation value or potential, for example SSSIs SNCIs BOAs, LNRs	- Guidance was given to the Planning Policy Team in writing the biodiversity section of the Local Plan. The Countryside Officer Ecologist provides advice to the planning team to mitigate any negative impact on designated sites.
Target 2.5: The Council and its partners will aim to monitor condition/status of the designated sites, habitats and species of principal importance, at least every 10 yrs. Share records with relevant groups and organisations. Promote the use of iRecord/iSpot.	- Continuous surveying takes place across the Nature Reserves. Records are shared with SBIC and other organisations. - New criteria for the selection of SNCIs was introduced in 2024 to which our SNCIS will now be reassessed.

Objective 3: In line with the Local Plan, ensure EEBC identifies and realises new opportunities for nature and maximizes the Biodiversity resource across the Borough.

Target	Progress
Target 3.1: Take every opportunity to enhance Biodiversity and green infrastructure by embedding a Biodiversity net gain principle at the design stage for all development, in line with the Local Plan and the government's decision to mandate the Biodiversity Net Gain principle through the planning process. This should include and emphasis on maintaining habitat connectivity throughout the borough via the implementation of a green infrastructure policy.	- BNG is now mandatory in most planning applications. In line with the Local Plan, opportunities to recover nature within the Borough will be prioritised. - A new target will be to register Epsom & Ewell owned land to be habitat banks to realise much needed funding to assist with habitat management.
Target 3.2: Retain and develop in-house ecological advice to the Council to assist in implementing the Local Plan, ensuring development in the Borough achieves measurable net gains for Biodiversity.	- Ecologist role has been reassessed recently and is a key part of the place development team in providing ecological advice. Following the implementation of BNG, many more applications will need to be assessed, which may lead to further resource requirements.
Target 3.3: Establish a Borough wide way of recording and monitoring the Biodiversity losses and gains due to development.	- This will be part of the process in delivering BNG and information will need to be recorded when providing our Biodiversity report every 5 yrs.

Target 3.4: Data gathered regarding Biodiversity from the ecological reports needed to determine planning permission to be made available and shared with Surrey Biological Records Centre and other partners, to enable better decision making.	- Bat records are stored on the EEBC database. Future progress still to be made on sharing data, subject to privacy concerns.
Target 3.5: In line with the Epsom and Ewell Local Plan, NPPF and British Standard, the EEBC Planning Team will protect Biodiversity by: • Planning conditions affecting Biodiversity should be discharged and implemented as agreed. Seek to find officer time to check compliance with planning conditions. • Ensure that no planning application is validated until all necessary ecological surveys have been completed, to help ensure planning applications are delivered within the required period. • Encourage the use of sustainable long-term mitigation techniques e.g. bat boxes/bird boxes made out of long lasting materials and agreements to carry out necessary management techniques in perpetuity. • Ensure the mitigation hierarchy is followed; avoid, minimize, restore, offset. (Ensure that receptor sites are identified and agreed within our planning policies).	- Validation criteria have been amended along with householder applications now being required to carry out surveys they were previously exempt from, e.g preliminary bat surveys. - A map has been created using current known locations of bat roosts to indicate when bat surveys are needed. This map will need to be continually reviewed and updated when new information emerges.

Objective 4: Seek to secure sustainable funding available for the long-term conservation, enhancement and monitoring of Biodiversity in Epsom and Ewell.

Target	Progress
Target 4.1: As appropriate, identify both the costs associated with delivering the Biodiversity Action Plan's objectives and potential funding streams: For example, Community Infrastructure Levy (CIL), government agri-environment schemes (e.g Basic Payments, Countryside Stewardship), land fill tax grants, health and wellbeing grants and other appropriate grant schemes.	- Applications are underway for the new agri-environment scheme. For EEBC sites, Countryside Stewardship will be most applicable. Basic payments are slowly being reduced and will not exist past 2027. - For individual projects, CIL funding has been very useful and will continue to be applied for. - Dependent on the project, other grant schemes will be looked in to.
Target 4.2: Underpinned by the mitigation hierarchy, create an open spaces 'Green Infrastructure Enhancement Fund' via developer contributions to help reduce the impact on Biodiversity of the development itself and	- Biodiversity Net Gain Habitat banking has superseded this concept and will be progressed.

increased use/visitor numbers caused by development.	
Target 4.3 Propose a system that sees businesses using our open spaces paying an appropriate annual license fee, to help in maintaining the Borough's Green Infrastructure. For example, commercial dog walking and personal training businesses.	- A pilot scheme at Nonsuch Park started in April 2025, following consultation from visitors, to introduce an annual charge to professional dog walkers. This will be assessed and rolled out across the other parks and open spaces in the Borough if successful. Impact on other sites from increased dog walking should be monitored.
Target 4.4 With reference to the Council's Biodiversity Duties promote the ecological and financial benefits of a long-term approach to managing Biodiversity. Create a funding safety net, provided by the Council to ensure the continued delivery of Biodiversity management within the Borough as directed by Council Policy (agreed management plans).	No progress so far.

Objective 5: Identify further opportunities to act locally where managing Biodiversity can assist with global priorities of environmental sustainability.

Target	Progress
Target 5.1. Assist the Borough in implementing its Climate Change Action Plan.	- The Climate Change officers' working group became the Climate Change and Biodiversity officers' Working Group. A member of the Countryside Team attends these meetings and any opportunities to cooperate are taken. - A new Green Your Home Guide (GYHG) has been jointly created to encourage residents to reduce their emissions and do what they can to encourage biodiversity in their gardens.
Target 5.2. Investigate how much carbon dioxide the Borough's tree cover absorbs.	Completed and the exercise emphasised that even if the Borough was completely forested, it would not come close to absorbing the c2016 government figures for Epsom and Ewell's emissions, which was 250,000 tonnes of CO2 a year annually.
Target 5.3. Support and promote appropriate locations for street tree planting (right tree, right place, and right reason), natural regeneration of woodland and other plant-based measures (e.g. green roof) that help tackle climate change issues.	- Support was provided in writing the tree management plan. - Treescape fund application successfully secured £73,000 to plant 2610 trees, coordinated by the Tree Officer in 24/25. - Within the Tree Management Plan we have committed to plant (including through natural regeneration) 6,000 new trees by 2030. We are roughly half way there, so just under 3,000 additional trees needed.

Target 5.4. Work with partners in the Hogsmill Catchment Partnership to address the climate change induced issues of water quantity and quality in the globally important Hogsmill River, one of only 200 chalk streams on the planet.	- Support was provided to the South East Rivers Trust (SERT) in the creation of the new wetland at Chamber Mead. - A member of the Countryside Team attends the Hogsmill Catchment Partnership meetings.
Target 5.5. Work with partners to maximize the Biodiversity benefits that can be gained from tackling flood threats, both within the Borough and neighbouring districts.	- Our larger open spaces can act as sponges to slow down water flow and alleviate floods downstream. Where opportunities arise to allow areas of the nature reserves/larger SNCIs to flood/create ponds or wetlands, they will be investigated.
Target 5.6. Promote the Biodiversity benefits of 'Sustainable Urban Drainage' (SUDS) by encouraging residents and businesses to retain/invest in gardens, flower beds, trees and water butts.	- The new GYHG provides advice on this for residents. Social media campaigns will also assist in getting the message out and educating our residents.
Target 5.7. Work with partners to control the spread of non-native and invasive species, pests and diseases ensuring bio-security.	- Coordination on removal of Himalayan Balsam occurs between EEBC, SERT and the Lower Mole Partnership.

Additional Targets for the next 5 yrs **

A key priority which doesn't fit into the current objectives is that Epsom and Ewell Borough Council, as part of their involvement in the Local Government Re-organisation, need to emphasise the importance of having the guidance, structure and support of a Biodiversity Action Plan. It is desirable that the objectives contained within this Biodiversity Action Plan continue to be implemented and adopted by any new authority created following Local Government Re-organisation.

Objective 1: **Raise awareness and engagement in Biodiversity and develop partnerships to ensure that the conservation and enhancement of Biodiversity in Epsom and Ewell are maintained in the long term.**				
Target	**Who**	**When**	**How**	**Outcome**
Raise awareness and engagement.	Countryside Team and Communications Team and Local Wildlife Groups	On-going	- Giving illustrated talks to local groups. - Publish Green Your Home Guide - BioBlitz/Recorder Day events - Highlight how people can get involved through social media. - Continue programme of guided walks and events. - Environmental education to schools and youth groups	- Increased citizen science. - Annual Recorder Day - Monthly social media posts on campaign themes.
Objective 2: **Ensure the conservation and enhancement of protected sites, plus habitats and species of principal importance.**				
Target	**Who**	**When**	**How**	**Outcome**
Work with Surrey CC to confirm LNRS.	Place Development	2025	Following consultation, final draft and mapping to be reviewed within 28 days from 23rd June 2025	Final Local Nature Recovery Strategy outcome to be agreed and published in October 2025 to align with the views of EEBC.
Submit application for Manor Open Space to be designated SNCI.	Countryside Team and Local Sites Partnership	Sept 2025	Complete survey and write up report.	New SNCI for EEBC if criteria is met.

Target	Who	When	How	Outcome
Re-survey SNCIs with updated criteria.	Countryside Team	2026	Liaise with the Local Sites Partnership re timings and capacity of number of sites possible to review each year.	All SNCIs in Epsom & Ewell reviewed to new criteria.
Encourage linkage of Priest Hill and Howell Hill Surrey Wildlife Trust Reserves with Northey Fields. Management of Northey Fields should be reinstated.	EEBAP Working group and Surrey County Council	On-going	Keep in touch with Land Management Agent at Surrey to understand how Northey Fields is being managed. Continue to liaise with Surrey Wildlife Trust.	Joined up management of important area of biodiversity.
Work with SBIC/LNRS team to ensure the whole of the Borough's priority habitats are mapped to help inform management of Biodiversity across the Borough.	Countryside Team and SBIC	2030	Work with GIS officer and SBIC's GIS team to share mapping locations.	New layer on EEBC GIS layer for use by Council staff.
Improved management of chalk grassland on Epsom & Walton Downs and Epsom Downs golf course, with significant further scrub clearance and subsequent 'cut and clear' annual grass cutting regime/grazing where appropriate.	Countryside Team and Operational Services	On-going	Use of the flail collector across the Downs and monitor results. Liaise with Jockey Club to ensure the correct cutting of Derby Stables Grassland. Implement grazing where it is deemed feasible, e.g. Juniper Hill.	Improved condition of grassland habitat across the Downs.
Continue improved grassland management at Nonsuch Park with the introduction of an annual cut and clear regime.	Countryside Team and Operational Services	On-going	Continue use of flail collector to carry out grassland management in rotationally cut meadow. Continue control of ragwort in 3 meadows to enable hay cut.	Improved condition of grassland habitat, shown by surveying and monitoring the sward and invertebrate life.

Target	Who	When	How	Outcome
Extend use of flail collector to all suitable areas of grassland.	Countryside Team and Operational Services	On-going	If capacity allows, cut further areas with flail collector e.g. some verges and recreational parks.	Improved grassland habitat management.
Pond restoration/creation with emphasis on ponds associated with Great Crested Newt populations, for example, in Horton Country Park, Epsom Common and Nonsuch park	Countryside Team and Operational Services and Epsom Common Association and Newt Conservation Partnership	On-going	In line with the management plans, manage ponds on site with assistance from volunteers. Where possible facilitate the creation of new ponds, particularly in cooperation with the Newt Conservation Partnership.	Improved condition of ponds and creation of new. Continued presence of Great Crested Newts where already present.
Work with SERT and Citizen Zoo to manage the Chamber Mead Wetland and habitat along the Hogsmill river to be suitable for Water Voles, following their reintroduction.	Countryside Team and Operational Services	On-going	Ensure bankside vegetation is suitable for water voles	Water voles provided with the best chance of survival.
Continued and enhanced biological monitoring effort to help inform management of Biodiversity across the Borough.	Countryside Team and volunteers	On-going	Continue programme of surveying and monitoring across the Borough with continued support and recruitment of volunteers	Improved knowledge of biodiversity across the Borough.
Continue funded support for the Lower Mole Partnership.	EEBC	On-going	Continue to appoint an officer to the Lower Mole Officers' Working Group.	Vital input in managing and enhancing our public open spaces continues.

Target	Who	When	How	Outcome
Continued support of practical conservation volunteer groups.	Countryside Team, Operational Services and Volunteers	On-going	Continuing programme of practical conservation tasks led by the Countryside Team and support other local groups such as the Lower Mole Partnership, Epsom Common Association - EcoVols, South East Rivers Trust, Butterfly Conservation, Surrey Amphibian and Reptile Group, Ashtead Common Volunteers.	Continued strong public involvement in the practical management of the important habitats found across Epsom and Ewell.
Continuation of grazing on Epsom Common LNR	Countryside Team, CT vols, Operational Services and Epsom Common Association Volunteers and Local Farmer	Annually for approx. five months of the year	Maintenance of three grazing areas with temporary fencing. Grazed roughly from May to September every year. Checked daily by a combination of trained staff and volunteers on a rota, coordinated by the Epsom Common Association, overseen by the Countryside Team.	Wood Pasture and Parkland priority habitat maintained and enhanced.

Target	Who	When	How	Outcome
Continuation of veteran tree management and recording throughout the Borough	Countryside Team, Tree Officer, Planning Team, Volunteers	On-going	Continue to implement and update the veteran tree management within the nature reserves according to the management plans. Continue to support/train volunteers to locate and assess veteran trees across the rest of the Borough. Coordinate management with tree officer	Improved knowledge or the location of veteran trees across the Borough along with their improved management to prolong their longevity.
Continuation of support to manage the problem of Ash-Dieback within the Borough to ensure public safety while protecting biodiversity.	Countryside Team, Tree Officer, Planning Team	On-going	Support the Ash-dieback working group. Manage woodlands and woodland edge with Ash management in mind. Apply for felling licenses and seek additional resource to safely manage Ash dieback risks and provide tree population enrichment to enhance biodiversity in woodland situations (on the Councils landholding and co-managed sites).	A well-managed ash resource, without a detrimental effect on safety or biodiversity.

Target	Who	When	How	Outcome
Continuation of hay meadow management at Horton Country Park LNR	Countryside Team	On-going	Continue coordination of hay cut with Equus Equestrian Centre.	Continuing improvement of condition of hay meadow habitat.
Continuation of woodland management in Horton Country Park LNR	Countryside Team	On-going	Find resources to continue annual woodland management programme.	Enhancement of woodland priority habitat.
Continuation with implementing the management plans of the Borough's major open spaces and designated sites.	Countryside Team and Operational Services	On-going	Ensure on-going resource to implement management plans.	Successful management of key habitats and vital components of the Borough's Green Infrastructure.
Objective 3: **In line with the Local Plan, ensure EEBC identifies and realises new opportunities for nature and maximizes the Biodiversity resource across the Borough.**				
Target	**Who**	**When**	**How**	**Outcome**
BNG - Register Epsom & Ewell owned land to offer up as habitat banks. - Calculate unit costs for those habitat banks - Assess resource needed to assess planning applications with BNG assessments and habitat management plans	Place Development and Legal and Estates	2026	Coordinate plans for funding Borough's open spaces through a combination of BNG funding and Countryside Stewardship (CS). Prioritise areas not appropriate for CS towards BNG funding e.g. woodland within the Nature Reserves and Manor open Space. Note that developer contributions should be calculated to cover costs incurred to EEBC for any extra planning work associated with assessing habitat management plans	Funded management of the Borough's priority habitats and key areas of green infrastructure.

			and their implementation, and any extra legal work associated with the developments.	
Target	**Who**	**When**	**How**	**Outcome**
Establish what resources will be needed to create our Biodiversity Report to comply with the Biodiversity Duty	Planning Policy, Development Control and Countryside Team	2026	Assess requirements following government guidance and experience with how BNG is being implemented.	Correct capacity to comply with our statutory duty.
To comply with the new Biodiversity Duty, amend all committee reports to include a section on potential impact on Biodiversity.	Countryside Team, Democratic Services and Senior Leadership Team	Sept 2025	Approach Senior Leadership Team to implement	Whole council takes account of the Borough's Biodiversity.
Highlight problem of increased visitor pressure due to development.	Countryside Team	On-going	E.g impact on Horton Country Park and its ability to alleviate visitor pressure on the Epsom and Ashtead Commons Site of Special Scientific Interest.	Proper assessment of impact of development on Biodiversity.
More comprehensive bat surveying throughout the Borough to better inform planning decisions and prioritising habitat management/enhancements	Countryside Team	On-going	Record findings from bat surveys required as a result of planning applications. Liaise with Surrey Bat Group to maintain up to date records. Use static bat detector in key locations around the Borough. Carry out evening bat surveys in key locations.	Comprehensive knowledge of suitable bat roosting opportunities and location of current bat roosts.

Objective 4: **Seek to secure sustainable funding available for the long-term conservation, enhancement and monitoring of Biodiversity in Epsom and Ewell.**				
Target	**Who**	**When**	**How**	**Outcome**
Apply for Countryside Stewardship for the three Local Nature reserves	Countryside Team	Summer 2025	Work with Natural England to set up agreements. Application round opens in summer 2025.	Secure funding in place for vital habitat management.
Assess if it would be possible to extend license fee for dog walking/business use across the Borough.	Countryside Team and Operational Services	2026/27	Assess trial in Nonsuch and encourage roll out if successful.	Improved funding for vital habitat management.
Objective 5: **Identify further opportunities to act locally where managing Biodiversity can assist with global priorities of environmental sustainability.**				
Target	**Who**	**When**	**How**	**Outcome**
Continue to follow the science and educate residents about the danger of flea and tick treatments.	Countryside Team and Communications Team	On-going	Follow scientific studies and promote findings and responsible dog walking and cat ownership.	Protection of vulnerable wildlife.
Continue to implement the tree management plan	Tree Officer, Environment and Sustainability Officer, and Countryside Team	2030	We have committed to plant (including through natural regeneration) 6,000 new trees by 2030. We are roughly halfway there, so just under 3,000 additional trees.	New areas of woodland created along with areas allowed to succeed to natural regeneration.
Follow management guidance to ensure successful management of wetland at Chamber Mead.	Countryside Team and Operational Services	On-going	Manage bank side vegetation to promote a good diversity of plants. Monitor silt deposition to ensure proper functioning of the wetland in improving water quality entering the river Hogsmill.	Globally rare chalk stream protected and improved biodiversity within the Hogsmill LNR.

Target	Who	When	How	Outcome
Continue to attend Hogsmill Catchment Partnership meetings	Countryside Team	On-going	Attend meetings and work in partnership with members.	Well managed river catchment
Continue to assess storm tanks and liaise with partners over improvements to ensure reduced amount of sewage polluting the River Hogsmill. Highlight the impact of new development on the already overstretched capacity of the existing storm overflow tanks, which regularly discharge raw sewage into the River Hogsmill, a chalk stream.	EEBC	On-going	Maintain membership of Hogsmill Catchment Partnership. Ensure planning applications consider the impact of new development on the River Hogsmill, a chalk stream, in line with our Biodiversity Duty.	Improved water quality in the River Hogsmill and its tributaries.

APPENDIX 1 - REFERENCES

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2	'Biodiversity by Design' A TCPA ' 2004 By Design' Guide Town & Country Planning Association
3	Chalk Grassland (including Chalk Scrub) HAP, 1999, CG HAP Working Group
4	DEFRA (2002) Working With The Grain Of Nature: a Biodiversity strategy for England
5	EEBC District-wide Local Plan, 2000
6	EEBC Green Spaces Strategy, undated
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32	Naturally Richer – A Natural Capital Investment Strategy for Surrey - Surrey Nature Partnership

33	Biodiversity Opportunity Areas: The basis for realising Surrey's ecological network - Surrey Nature Partnership
34	UK National Ecosystem Assessment
35	Climate Change Affects Biodiversity Anup Shah 2014 Globalissues.org
36	NERC Report card 15 Biodiversity Climate Change Impacts
37	Epsom & Ewell BC Climate Change Action Plan
38	The State of Surrey's Nature Report – Surrey Wildlife Trust
39	https://www.gov.uk/guidance/natural-environment
40	https://www.local.gov.uk/pas/pas-planning-and-environment
41	State of Nature Report 2023
42	Lawton Report (2010) - 'Making Space for Nature'
43	The Dasgupta Review 2021

APPENDIX 2 - ABREVIATIONS

AGLV	Area of Great Landscape Value
AW	Ancient Woodland
BAP	Biodiversity Action Plan
CA	Conservation Area
EEBC	Epsom & Ewell Borough Council
HAP	Habitat Action Plan
LNR	Local Nature Reserve
NNR	National Nature Reserve
SAP	Species Action Plan
SCC	Surrey County Council
SNCI	Site of Nature Conservation Importance
SNPBWG	Surrey Nature Partnership Biodiversity Working Group
SSSI	Site of Special Scientific Interest

APPENDIX 3 – LOCATIONS OF HABITATS WITHIN EPSOM AND EWELL

Priority Habitats

Notes: Areas in hectares are from various sources and are intended to convey the order of size of a site rather than being precise. Sites often contain more than one habitat

Arable Field Margins and Hedgerows	
Location/ Name	Area (H) If known
Downs Farm	45 (Calcareous grassland?)
Horton Country Park	(Hay Meadows & rough grassland)
Horton Farm	35
Horton Park Farm (Hobbledown)	9
Langley Bottom Farm	73 (Notable arable plants)
Northey Fields	18 (Notable arable plants)
North Looe Farm	63 (Calcareous grassland?)
Land either side of Rifle Butts Alley	20 (Calcareous grassland?)

Ponds	
Location/ Name	Area (H) If known
Epsom Common – 6 ponds	
Horton Country Park - 12 ponds	
Stones Road – 2 ponds	

Rivers	
Location/ Name	Area (H) If known
River Hogsmill	
Tributaries from Epsom Common	
Tributaries from Horton Country Park	

Lowland Calcareous Grassland	
Location/ Name	Area (H) If known
Howell Hill	4.80
Juniper Hill	8.2
Howell Hill Farmyard?	
Chalk Lane & Durdans Fields	37.5
Epsom Cemetery	8.2
Epsom and Walton Downs	186
Epsom Downs Golf Course	55

Langley Bottom Farm	73
North Looe Farm	63
Priest Hill	30

Lowland Dry Acid Grassland and Heathland	
Location/ Name	Area (H) If known
Epsom Common Bramble Heath	0.3
Epsom Common Castle Heath	0.35
Epsom Common Horton Heath	0.5

Reedbeds	
Location/ Name	Area (H) If known
Horton Country Park wetland	
Hogsmill LNR	

Traditional Orchards	
Location/ Name	Area (H) If known
Horton Country Park Lambert's Orchard	
Horton Country Park Long grove Orchard	

Lowland Mixed Deciduous Woodland	
Location/ Name	Area (H) If known
Epsom Common	
Ashley Road Woods	
Epsom Downs	
Juniper Hill	
Durdans	
Headley Road	
Warren Farm	
Cuddington Golf Course	
Epsom Common	
Langley Bottom Wood	
Langley Vale Woodland	
Burnham's Grove	
Butcher's Grove (AW)	

Four Acre Wood (AW)	
Godbold's Copse	
Great Wood (AW)	(2)
Hendon Grove	
Hollymore Grove	
Long Grove Wood	
Pond Wood (AW)	(6)
Porters Grove	
Sherwood Grove	
Stone's Copse	
Tobin's Copse	
Lamberts Orchard	
The Manor Woods	

Wet Woodland	
Location/ Name	Area (H) If known
Epsom Common (to the south west of Great Pond)	

Wood Pasture and Parkland	
Location/ Name	Area (H) If known
Epsom Common	
Nonsuch Park Open Space	(137)

Urban Habitats

Notes: Areas in hectares are from various sources and are intended to convey the order of size of a site rather than being precise. Sites often contain more than one habitat with some being semi natural habitats. If known the semi natural habitats are noted in the table below.

Managed Green Space (86 sites)		
Location/ Name	Semi natural habitats (If Known)	Area (H) If known
Private Gardens across the Borough		
Railway embankments		
Road side verges		
Epsom Golf Course	Chalk grassland & Scrub	(63)
Epsom Cemetery	Chalk grassland & Scrub	(7.2)
St Mary's Cemetery Meadow	Chalk grassland & Scrub	
Woodcote Park	Chalk grassland & Scrub	(108)
Alexandra Recreation Ground		(6.38)
Auriol Recreation Ground		(5.80)
Banqueting Site	Woodland	
Chessington Road Recreation Ground (Baker's Field)		(1.83)
Court Recreation Ground	NB Veteran Trees	(8.00)
Gibraltar Recreation Ground		(3.95)
London Road Recreation Ground		(2.43)
Poole Road Recreation Ground	NB Veteran Trees	(6.39)
Mounthill Gardens		(2.43)
Nonsuch Park		(137)
Shadbolt Park		(3.10)
Bourne Hall Park		(2.71)
Elizabeth Welchman Gdns		(1.17)
Ewell Court Park		(5.48)
Rosebery park		(4.50)
Cherry Orchard Farm		
Warren Farm		
Christchurch Churchyard		
Clay Hill Green		
Ewell By Pass, adj Nonsuch		
Fair Green		
Gadesden Road Open Space		
Glyn House Grounds		
Green Lanes Open Space		
Hatch Furlong		
Hambledon Copse	Woodland	
R/O Kings Church		
Longmead Contours		
Nonsuch Ind.Est.Landscaping		
Park Avenue West Open Space		

Royal Avenue Open Space	Nb Veteran Trees	
St. Margaret Churchyard		
St. Martin's Churchyard	NB Veteran trees	
St. Mary's Churchyard	NB bats	
The Dell	Woodland	
The Grove		
Timbercroft Island		
Upper Mill		
Woodcote Green	Woodland	
Macks Land		
Ebbisham Sports Club		
Epsom Bowling Club		
Epsom Lawn Tennis Club		
Epsom Sports Club		
Ewell Tennis Club		
Lintons Centre Playing Field		
London Fire Brigade Playing Field		
Old Haileyburian Rugby Playing Field		
Old Salesian Club Playing Field		
Sutton & Epsom Rugby Playing Field		
Sutton Cricket Club Playing Field		
Wandgas Athletic Playing Field		
Auriol Middle School		
Blenheim School		
Cuddington Junior School		
Danetree Middle School		
Epsom & Ewell High School		
Epsom Junior & Middle School		
Ewell Castle School		
Epsom College	Chalk grassland & Scrub	
Glyn, Kingsway School		
Glyn, Reigate Road School		
Kingswood House School		
Nonsuch High School		
Nescot College	Chalk grassland & Scrub	
Riverview Junior School		
Rosebery School		
St. Joseph's School		
Stoneleigh Junior & Middle School		
The Mead, Junior School		
Wallace Fields Junior/Middle School		
West Ewell County Junior School		
Alexandra Road Allotment		
Barn Elms Allotment		
Epsom Common Allotment		
Hessle Grove Allotment		

Kingston Road Allotment		
Lane End Allotment		
Park Avenue West Allotment		
Stones Road Allotment		
West Ewell Allotment		

Urban Semi-Natural Habitat (5 sites)		
Location/ Name	Semi natural habitats (If Known)	Area (H) If known
Hogsmill Local Nature Reserve	Meadows, Woodland, Wetland	38.3
Dancer Dick Wood	Woodland	
Grafton Road SCC land		
Lower Mill	Woodland	
Nonsuch Park	Woodland: Meadows	

Urban Wetlands		
Location/ Name	Semi natural habitat (If known)	Area (H) If known
Bourne Hall Pond		
Ewell Court Lake		
The Horse Pond (Bourne Hall)		
Upper Mill Pond		
Lower Mill Pond		
Hogsmill tributaries x3		
Hogsmill LNR -1 pond		
Hogsmill River		
Nonsuch Park – 4 ponds		
Stones Road Pond (SSSI)	(0.25)	
Woodcote Park Lake		
Shadbolt Park Pond		
Rosebery Park Pond		
Woodcote Green Pond		

APPENDIX 4 – SPECIES OF PRINCIPAL IMPORTANCE FOUND WITHIN EPSOM AND EWELL

The following list contains the species of principal importance found within the Borough of Epsom & Ewell. Please note the list is under constant review, some species may no longer be present, and some species may not have been recorded to date. The list is as defined by Section 41 of the Natural Environment and rural Communities Act 2006.

Key – x = recorded between 2010 and 2019, x = an older record, recorded between 1990 and 2009, ex = extinct, s = records from Surrey Nature Partnership's Biodiversity and Planning in Surrey document appendix 2		
Species	Group	Status of record
Common Toad	Amphibian	×
Great Crested Newt	Amphibian	×
Brown Long-eared Bat	Bat	×
Noctule Bat	Bat	×
Soprano Pipistrelle	Bat	×
Red-shanked carder bee	Bee	s
Bull finch	Bird	×
Cuckoo	Bird	×
Curlew	Bird	×
Dunnock	Bird	×
Grasshopper Warbler	Bird	×
Grey Partridge	bird	×
Herring Gull	Bird	×
House Sparrow	Bird	×
Lapwing	Bird	×
Lesser Redpoll	Bird	×
Lesser spotted woodpecker	Bird	×
Linnet	Bird	×
Reed Bunting	Bird	×
Sky lark	Bird	×
Song thrush	Bird	×
Spotted Flycatcher	Bird	×
Starling	Bird	×
Tree Pipit	Bird	×
Turtle Dove	Bird	×
Wood Warbler	Bird	×
Yellowhammer	Bird	×
Brown Hairstreak	Butterfly	×
Dingy skipper	Butterfly	×
Grizzled skipper	Butterfly	×
Small Blue	Butterfly	×
Small Heath	Butterfly	×

White Admiral	Butterfly	×
White-letter Hairstreak	Butterfly	×
Altantic Eel	Fish	×
Bearded tooth	Fungi	×
Orchard tooth	Fungi	x
Stag Beetle	Insect	×
European Water Vole	Mammal	ex
Harvest Mouse	Mammal	×
Hazel Dormouse	Mammal	×
West European Hedgehog	Mammal	×
Autumnal rustic	Moth	s
Beaded chestnut	Moth	s
Blood vein	Moth	×
Brindled beauty	Moth	s
Broom moth	Moth	s
Brown-spot pinion	Moth	s
Buff Ermine	Moth	×
Centre-barred sallow	Moth	s
Cinnabar	Moth	x
Crescent	Moth	s
Dark spinach	Moth	S
Dark-barred twin-spot carpet	Moth	s
Deep-brown dart	Moth	S
Dot Moth	Moth	×
Double dart	Moth	s
Dusky brocade	Moth	s
Dusky thorn	Moth	s
Dusky-lemon sallow	Moth	s
Ear moth	Moth	s
Feathered gothic	Moth	s
Figure of eight	Moth	x
Flounced chestnut	Moth	s
Garden dart	Moth	s
Garden tiger	Moth	x
Green-brindled crescent	Moth	s
Grey Dagger	Moth	×
Heart moth	Moth	s
Hedge rustic	Moth	s
Knot grass	Moth	s
Lackey	Moth	S
Large nutmeg	Moth	s
Latticed heath	Moth	s
Mellet's downy-back	Beetle	s
Minor shoulder-knot	Moth	s
Mottled rustic	Moth	s

Mouse moth	Moth	s
Oak Hook-tip	Moth	×
Oak lutestring	Moth	s
Powdered quaker	Moth	s
Pretty chalk carpet	Moth	s
Rosy minor	Moth	s
Rosy rustic	Moth	s
Rustic	Moth	×
Sallow	Moth	s
September Thorn	Moth	×
Shaded Broad-Bar	Moth	×
Shoulder-striped wainscot	Moth	s
Small emerald	Moth	s
Small phoenix	Moth	s
Small Square-spot	Moth	×
Spinach	Moth	s
Sprawler	moth	×
Streak	Moth	s
White Ermine	Moth	×
Basil thyme	Plant	s
Chalk eye-bright	Plant	×
Chamomile	Plant	×
Ground pine	Plant	s
Juniper	Plant	×
Man Orchid	Plant	×
Penny royal	Plant	×
Red Hemp Nettle	Plant	×
White helleborine	Plant	s
Adder	Reptile	×
Common Lizard	Reptile	×
Grass Snake	Reptile	×
Slow-worm	Reptile	×

APPENDIX 5 – EPSOM AND EWELL BIODIVERSITY OPPORTUNITY AREA INFORMATION

Thames Basin Lowlands TBL04 – Ashtead and Epsom Woodland, Prince's Coverts and Horton Country Park

- https://surreynaturepartnership.files.wordpress.com/2019/10/appendix-5_thames-basin-lowlands-Biodiversity-opportunity-area-policy-statements.pdf

NB habitats and species in bold are found in Epsom and Ewell.

Habitats of Principal Importance (Priority habitats):
Mixed deciduous woodland, Wet woodland, Wood pasture & parkland, Heathland, Acid grassland, Hedgerows, Ponds

Species of Principal Importance (Priority species):
Plants: Glandular eyebright*, Green hound's-tongue
Fungi/Lichens: Oak polypore, Zoned rosette, Orchard tooth (all fungi); Parmelina carporrhizans (=quercina)*, Sclerophora pallida* (both lichens)
Invertebrates: **Brown hairstreak**, **Dingy skipper, Grizzled skipper, Small heath, White admiral, Whiteletter hairstreak**, Clay fan-foot, Heart moth, Necklace ground-beetle*, New Forest mud beetle*, **Stag beetle**, Shining guest ant, Phantom hoverfly, Small mesh-weaver (a spider), Silky gallows-spider, Thin weblet* (a spider), Triangle hammock-spider, Horehound long-horn (a micro-moth)
Vertebrates: **Bullfinch, Cuckoo, Dunnock, Grasshopper warbler***, Grey partridge, **Lesser spotted woodpecker, Linnet**, Marsh tit, Nightjar, Reed bunting, **Skylark, Song thrush**, Spotted flycatcher, Tree pipit, Woodlark, Wood warbler*, Yellowhammer; **Adder, Grass snake, Slow-worm, Common lizard, Common toad, Great crested newt**; Bechstein's bat, **Brown long-eared bat, Common dormouse, Harvest mouse, Hedgehog, Noctule bat, Soprano pipistrelle bat**

Further important species interest: **Corky-fruited water-dropwort**, Greater bladderwort, Greater yellow-rattle, Lesser pondweed, Marsh speedwell, Meadow-thistle, Needle spike-rush, Pale sedge, Purple willow, Round-leaved crowfoot, Saw-wort, Wood small-reed; **Purple emperor**, Bibloporus minutus, Procraerus tibialis, **Rhizophagus oblongicollis** (all beetles), Ctenophora bimaculata, Oedalea apicalis (both flies); Barn owl, **Kingfisher**
*Probably extinct in BOA

Key ecosystem services
Agricultural production; Timber production; Carbon sequestration; Flooding regulation; Pollination services; Recreational (walking, equestrian, angling, golf)

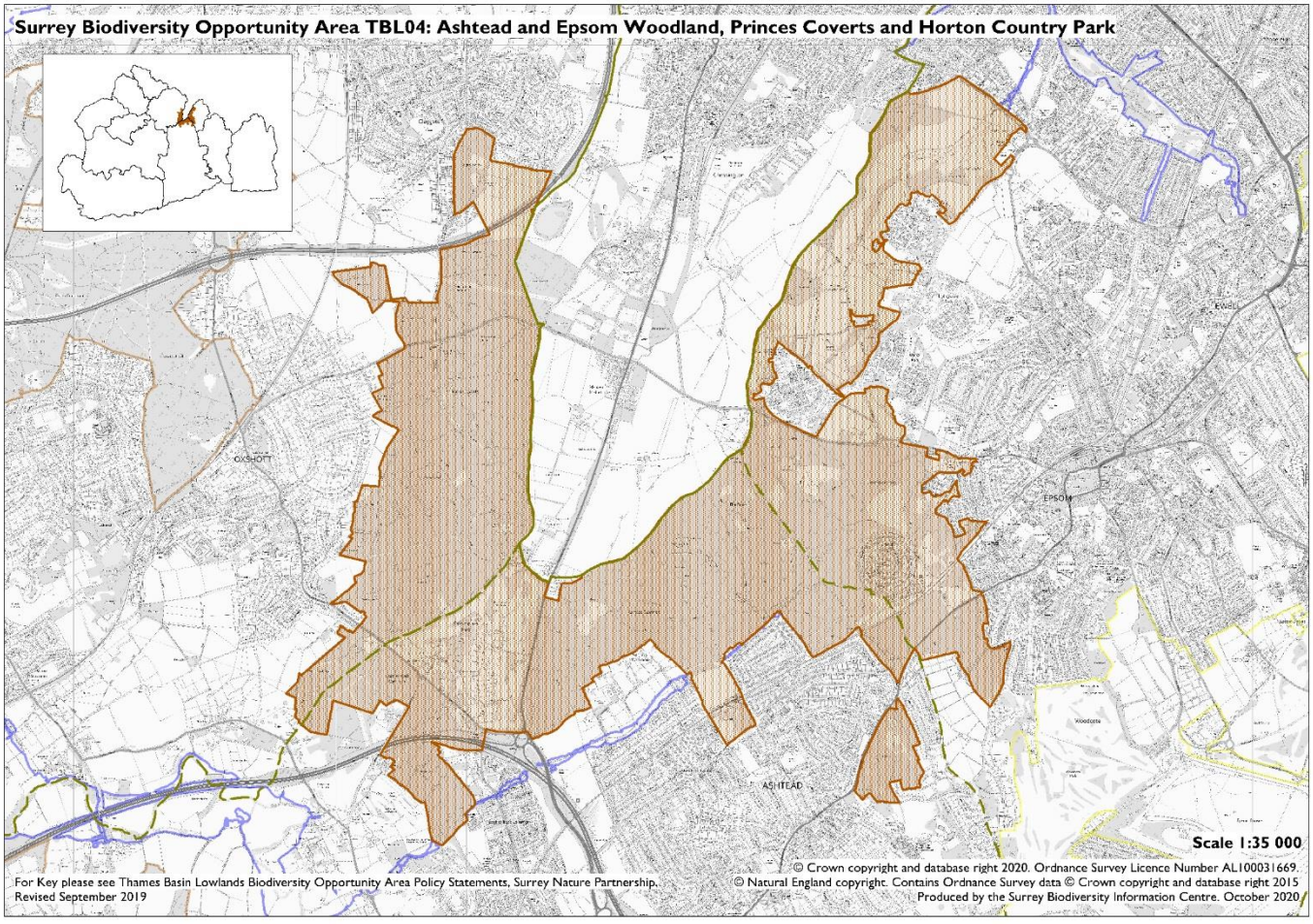
Socio-Economic
Employment profile: Leisure & tourism sector (esp. equestrian, golf & visitor attractions); Equine livery & services

LEP: Coast-to-Capital

Objectives & Targets
TBL04/O1: SSSI units to achieve favourable condition. T1: 95% by 2020 (by area)

TBL04/O2: SNCI protected by planning policy & in positive management. T2: All by 2020
TBL04/O3: Priority habitat restoration & creation:
 Mixed deciduous woodland(restoration only; Ancient woodland prioritised)/T3a: 75% by area
 Wet woodland/T3b : 1.5 by 2020
 Wood pasture & parkland/T3c: 6 ha by 2020
 Heathland/T3d: 8.25 ha by 2020
 Acid grassland T3e: 7.75 ha by 2020
 Hedgerows/T3f: 1.7 km by 2020

TBL04/O4: Priority species recovery.
 T4: By 2020, evidence of at least stabilisation & preferably recovery in the local populations of listed Priority species: White-letter hairstreak, Heart moth, Adder, Harvest mouse



North Downs ND04 – Epsom Downs to Nonsuch Park:
https://surreynaturepartnership.files.wordpress.com/2019/10/appendix-6_north-downs-Biodiversity-opportunity-area-policy-statements.pdf

Important Arable Plant Area: Langley Vale Farm (Plantlife)

Habitats of Principal Importance (Priority habitats):
Calcareous grassland, Mixed deciduous woodland, Beech & Yew woodland, **Arable field margins, Hedgerows**

Species of Principal Importance (Priority species):
Plants: Basil thyme, **Broad-leaved cudweed, Chalk eyebright**, Glandular eyebright*, Ground-pine, **Juniper, Man orchid**, Red hemp-nettle, White helleborine
Invertebrates: **Brown hairstreak, Grizzled skipper, Small blue, Small heath, White-letter hairstreak**, Chalk carpet*, **Stag beetle**, Red-shanked carder bee
Vertebrates: **Bullfinch, Dunnock, Lapwing, Linnet**, Marsh tit, **Skylark, Song thrush**, Spotted flycatcher, Tree sparrow*, Yellowhammer; **Adder, Common lizard, Slow-worm, Common toad, Great crested newt; Brown long-eared bat, Common dormouse, Harvest mouse, Hedgehog, Noctule bat, Soprano pipistrelle**
* probably extinct in BOA

Further important species interest: **Autumn lady's-tresses, Bastard-toadflax**, Cat-mint, Chalk fragrant-orchid, **Corky-fruited water-dropwort**, Corn gromwell, Dense-flowered fumitory, Green hellebore, Harsh downy-rose, Meadow clary, Narrow-fruited cornsalad, Night-flowering catchfly, Prickly poppy, Rough poppy, **Round-headed rampion**, Short-styled field-rose, Tall broomrape, Venus' looking-glass

Key ecosystem services
Agricultural production; Water provision and storage (aquifer); Pollination services; Recreation (competitive equestrian, walking, golf, cycling, model aviation)

Socio-Economic
Employment profile: Agriculture sector; Equine livery & services; Leisure & tourism sector (equestrian, golf, hospitality)

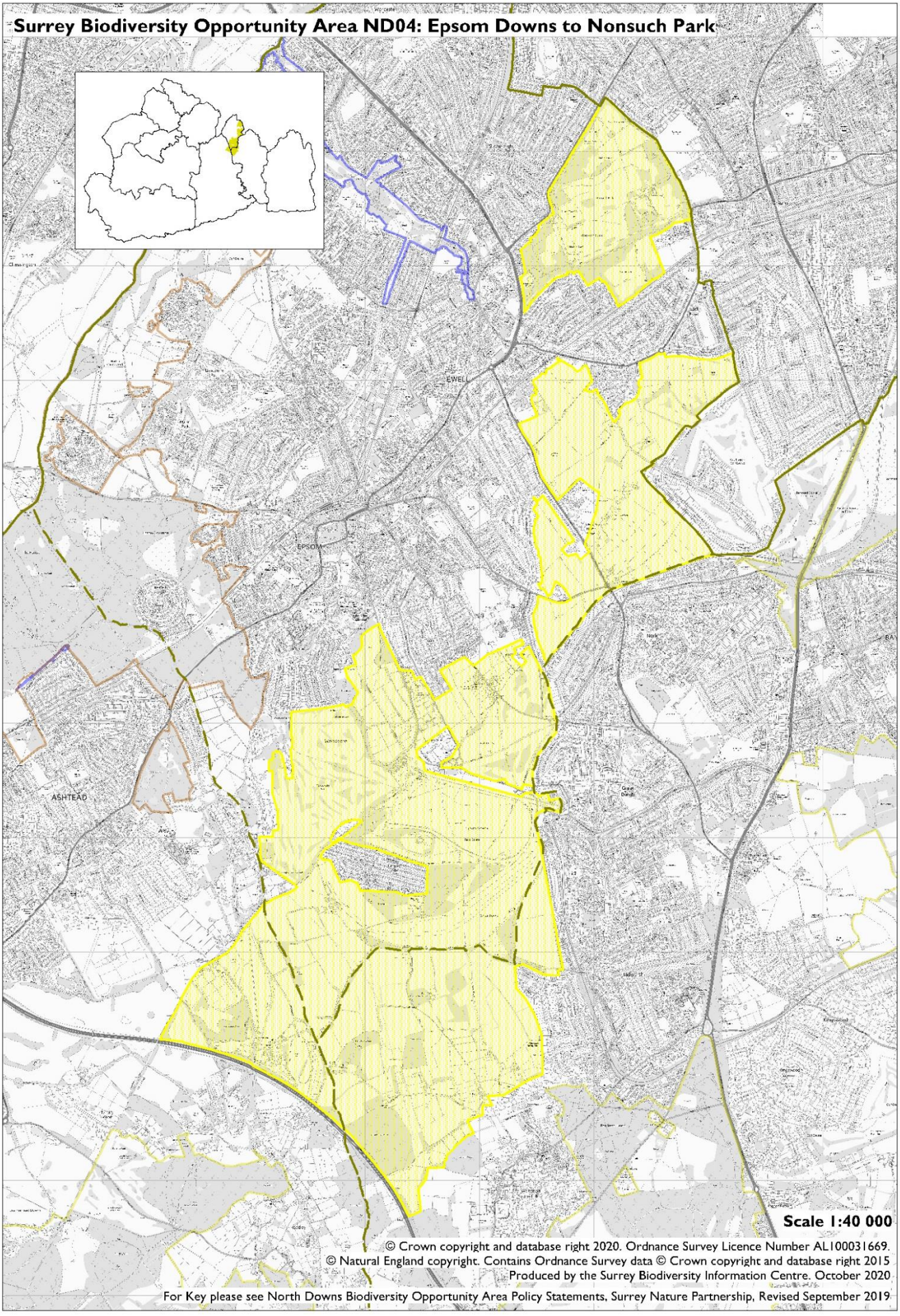
LEP: Coast-to-Capital

Objectives & Targets
ND04/O1: SNCI protected by planning policy & in positive management. T1: All by 2020
ND04/O2: Priority habitat restoration & creation:
- Calcareous grassland/T2a: 9.25 ha by 2020
- Beech & Yew woodland/T2b: 1.75 ha by 2020
- Mixed deciduous woodland (restoration only; Ancient woodland prioritised)/T2c: 75% by area
- Hedgerows/T2d: 1.9 km by 2020

ND04/O3: Priority species recovery.
 T3: By 2020, evidence of at least stabilisation & preferably recovery in the local populations of listed Priority species: Broad-leaved cudweed, Basil thyme, Red hemp-nettle, Small blue, Adder, Skylark

A success story within the North Downs BOA in Epsom and Ewell has been the creation of Priest Hill Nature Reserve, managed by Surrey Wildlife Trust. The site was formerly playing fields and associated sports facilities, which lay derelict for many years. The creation of the reserve and its infrastructure including a warden's house, paths and fenced fields to allow grazing was all funded by a developer, as planning gain in advance of a modest development of 15 houses in the Green Belt. Significant calcareous grassland restoration is ongoing, hedge lines and further habitat features have been re-established, providing a very important green infrastructure link within the Borough. Habitat re-creation on previously developed land has already attracted the Small blue butterfly to the reserve, while the reintroduction of priority wildflowers Broad-leaved cudweed and Basil thyme is ongoing. Chalk grassland restoration is benefitting breeding Skylark and Linnet and conservation grazing has further enhanced the site for wildlife.

Surrey Biodiversity Opportunity Area ND04: Epsom Downs to Nonsuch Park



Scale 1:40 000

Produced by the Surrey Biodiversity Information Centre. October 2020

For Key please see North Downs Biodiversity Opportunity Area Policy Statements, Surrey Nature Partnership, Revised September 2019

River Biodiversity Opportunity Area R01: Hogsmill River
https://surreynaturepartnership.files.wordpress.com/2019/10/appendix-9_river-Biodiversity-opportunity-area-policy-statements.pdf

This Biodiversity Opportunity Area includes the Hogsmill River, several tributaries and its Flood Zone, from central Ewell to the county boundary at Tolworth Court Bridge, where it is contiguous with similarly-identified opportunity land in Greater London. Much of the original floodplain was developed with the growth of outer London, although the modern river corridor occupies a chain of public open spaces of mixed formal and semi-natural character. Area: 52.5 ha

Habitats of Principal Importance (Priority habitats):
Rivers, Floodplain grazing marsh, Wet woodland, Meadows, **Ponds, Hedgerows**

Species of Principal Importance (Priority species):
Invertebrates: **White-letter hairstreak, Stag beetle**
Vertebrates: **Bullfinch, Dunnock, Lesser spotted woodpecker, Linnet**, Skylark, **Song thrush**, Spotted flycatcher; **Grass snake, Slow-worm, Common toad; Brown long-eared bat, Hedgehog, Noctule bat, Soprano pipistrelle bat, Water vole*; Brown trout, European eel**

Further important species interest: Black poplar, Horned pondweed; **Grey wagtail, Kingfisher**

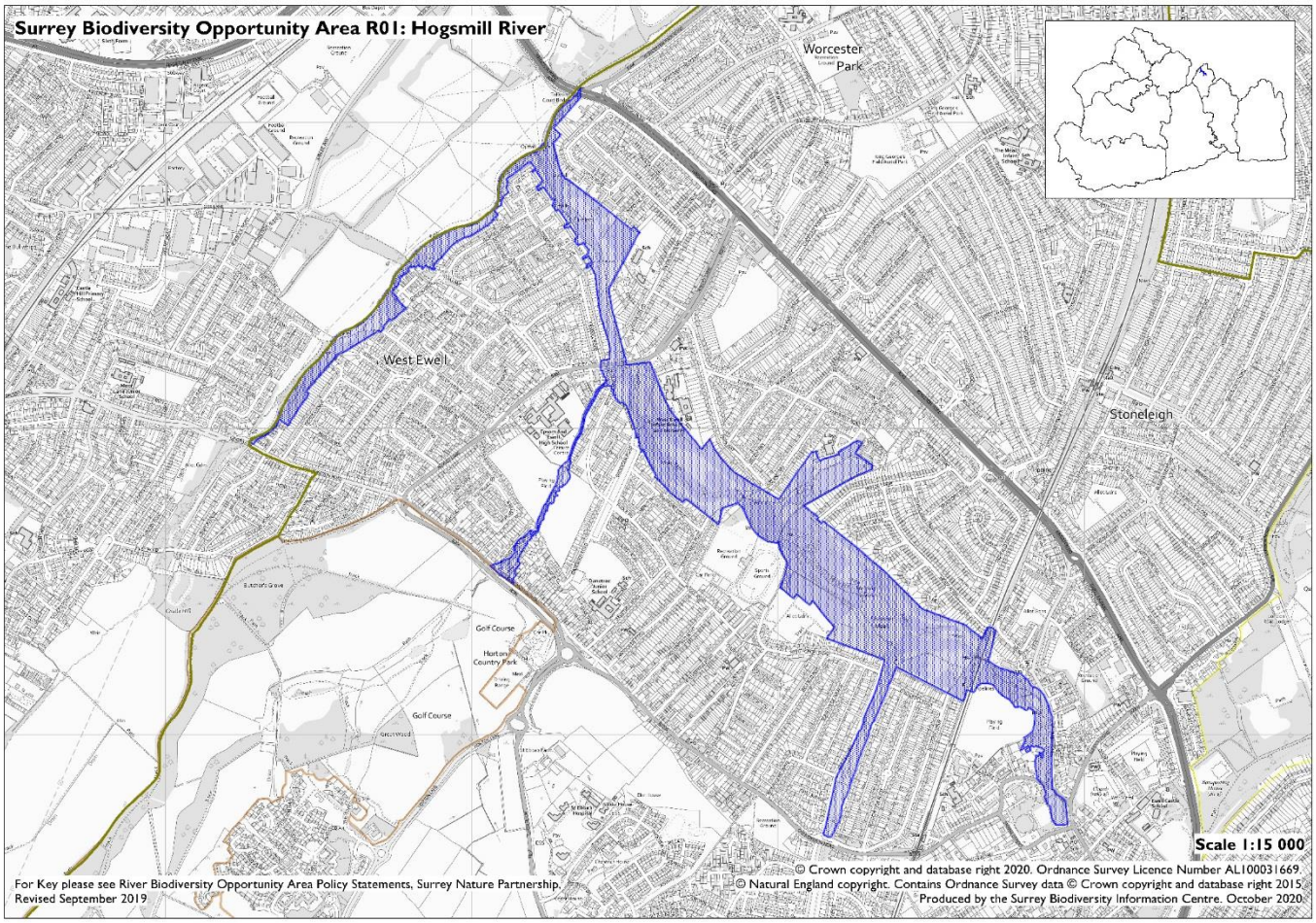
Key Ecosystem services
Water provision (abstraction and waste); Flooding regulation; Pollination services; Recreation (walking, equestrian, cycling, angling, nature observation)

Socio-Economic
Employment profile: multiple

LEP: Coast-to-Capital

Objectives & Targets
R01/O1: SNCI protected by planning policy & in positive management. T1: All by 2020
R01/O2: Priority habitat restoration & creation.
 Rivers (in-channel/bankside habitat creation)/T2a: 0.5 km by 2020
 Floodplain grazing marsh/T2b: 0.75 ha by 2020
 Meadows/T2c: 0.25 ha by 2020
 Wet woodland/T2d: 0.25 ha by 2020

R01/O3: Priority species recovery.
 T3: By 2020, evidence of at least stabilisation & preferably recovery in the local populations of listed Priority species: Water vole Brown trout European eel


Surrey Biodiversity Opportunity Area R01: Hogsmill River
Worcester Park
West Ewell
Stoneleigh
Golf Course
Horton Country Park
Golf Course
Scale 1:15 000
For Key please see River Biodiversity Opportunity Area Policy Statements, Surrey Nature Partnership. Revised September 2019
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