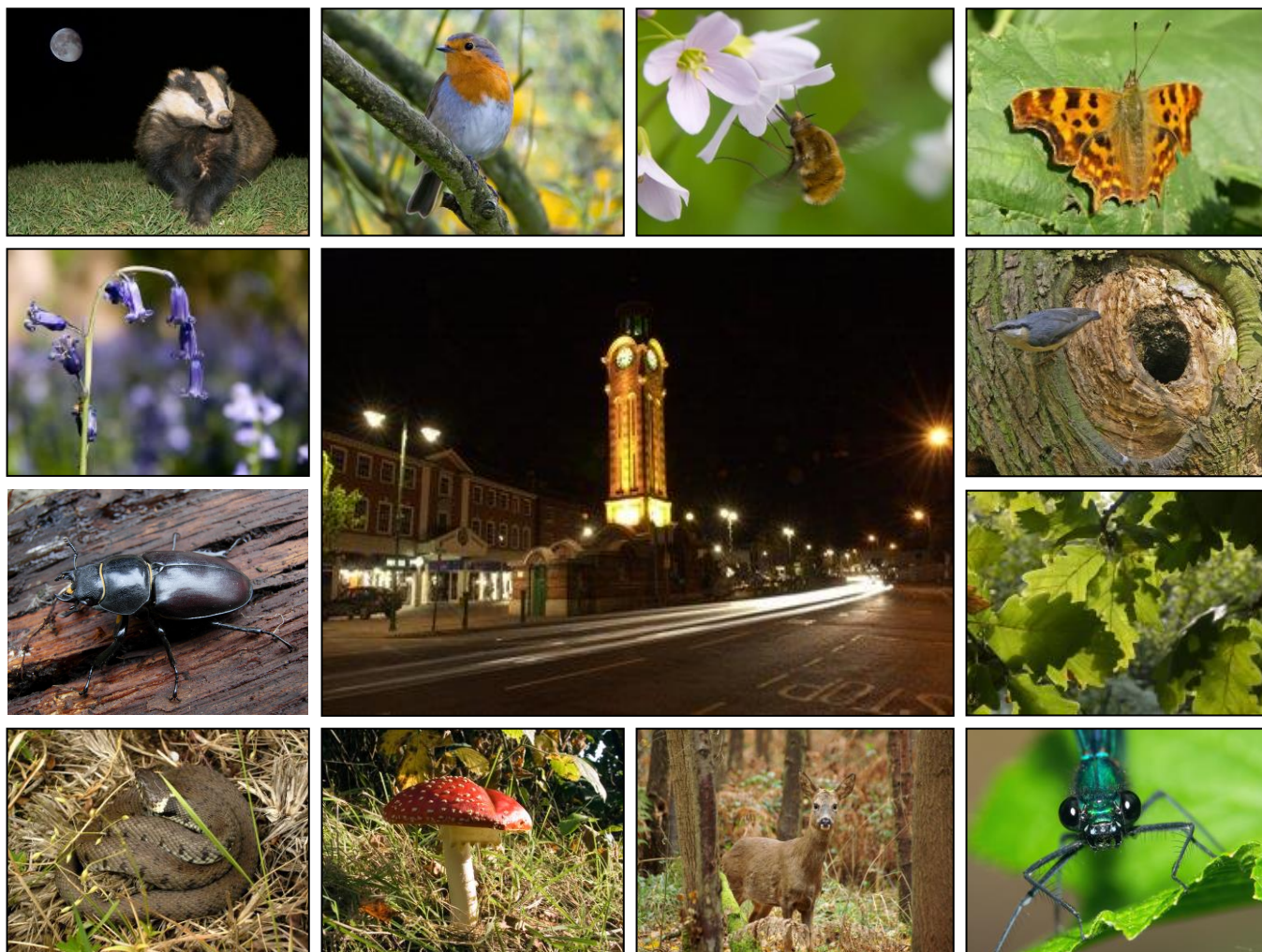




# Epsom & Ewell

## Biodiversity Action Plan 2010-20



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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 too. 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 2012

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Photographs courtesy of Stewart Cocker



*Black-tailed skimmer Dragonfly – Orthetrum cancellatum*



# 1.0 Introduction

## 1.1 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.

## 1.2 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!

## 1.3 Protecting Biodiversity - 'Act locally think globally'

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 provides 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 significantly reduce the rate of biodiversity loss by 2010. An outcome of this commitment is the target to have all Sites of Special Scientific Interest classified as in 'Favorable' condition by 2010.

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. In more recent times the view has shifted to one of also protecting biodiversity as a whole (landscape scale approach) and 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" and new agri-environment schemes now pay farmers

nation wide to enhance biodiversity across their farms.

Biodiversity action plans 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 BAP's 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 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 the their 'Biodiversity 2020 Strategy.

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 process in the control of development. In Epsom and Ewell for example the former Local Plan gave protection to sites designated as Sites of Nature Conservation Importance (SNCI) designated in the 1990's. Though positive this served to perpetuate the older more narrow approach to protecting biodiversity. Recent Planning Guidance e.g. 'the 2012 National Planning Policy Framework (NPPF) requires biodiversity objectives to be included by Planning Authorities in their local development documents. For example, In the NPPF under chapter 11. Conserving and enhancing the natural environment 117. To minimise impacts on biodiversity and geodiversity, planning policies

should: ●plan for biodiversity at a landscape-scale across local authority boundaries; ●identify and map components of the local 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 local partnerships for habitat restoration or creation; ● promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan.

In Epsom and Ewell the Local Development Framework (LDF), including the 'Core Strategy' refers to the role of the local BAP in guiding the future development of the LDF. The LDF for Epsom and Ewell will therefore have a more extensive approach to protecting biodiversity across the borough in comparison to the previous Local Plan. For example, coordination between the local BAP and the LDF could focus on preventing the fragmentation of habitats identified in the local BAP.

## **1.4 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 either 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

Boroughs economy and it is biodiversity in the form of plant and animal life that makes the open spaces such green and pleasant places.

Other important benefits from biodiversity in Epsom and Ewell include;

- Health benefits both physical from the opportunity for recreational pursuits such as walking, cycling, horse riding, gardening and nature watching to the more psychological/spiritual benefits of contact with nature

- Erosion control and flood defense from the retention of soil by plant roots and use of permeable surfaces.

- Micro climatic benefits such as the wind breaking effect of trees and hedges and the cooling effect from trees from both shade and transpiration.

- Environmental educational benefits for both young and old along with opportunities to volunteer and play an active role in the local community.

- Constant daily filtering of low levels of air and water pollution and some of the larger open spaces provide safe off road routes for cycling thereby reducing the number of local car journeys.

## 1.5 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 local 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 which 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 one 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, as specified in the UK Action Plan, are translated into effective action at the local level; (NB now focused on habitats and species of Principal Importance listed and covered under section 41 (England) of the NERC Act (2006))
- 2 Identify targets for species and habitats appropriate to the local area and reflecting the values

of people locally;

- 3 Develop effective local partnerships to ensure that programmes 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.

## **1.6 What benefits will an Epsom & Ewell Biodiversity Action Plan bring?**



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 not however 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 and which would also help ensure current endeavors are appropriate and effective. A local BAP will enable the effective use of the resources available in Epsom and Ewell with regard to protecting

and enhancing biodiversity over the long term.

The creation of an Epsom and Ewell Biodiversity Working Group or Partnership will ensure that the plan does not sit on a shelf gathering dust and will be 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 will safeguard one of the boroughs key assets and will play an important role in maintaining the local economy and improving the health of residents.

## **1.7 Designing a Local Biodiversity Action for Epsom & Ewell**

### **1.7.1 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 also with reference to the Surrey Biodiversity Action Plans. 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.

### **1.7.2 Methodology**

The Epsom and Ewell local BAP takes account of national guidance for local biodiversity action plans. To ensure consistency with regional and national priorities the Epsom & Ewell local BAP focuses on the habitats as defined by the Surrey BAP. As Epsom and Ewell contains all but one of the habitats identified in the Surrey BAP this approach is seen as a practical way of achieving the widest possible biodiversity benefits given the resources available and does not preclude the identification of locally important individual species and actions to conserve them. In addition this approach does not preclude actions which address the protection of biodiversity on a wider scale



and which are not specific to a particular habitat or species. For example the protection afforded through the local authority planning process.

### 1.7.3 Partnership

This plan has originated from a partnership between the Epsom and Ewell Environment Forum (No longer active) and Epsom and Ewell Borough Council. The planned formation of an Epsom & Ewell biodiversity working group or partnership linked to the Surrey Biodiversity Partnership (Changed in 2013 to the Surrey Nature Partnership Biodiversity Working Group) is seen as an essential part of both developing this plan as well as implementing it. The group or partnership will meet on a quarterly basis to review all aspects of the plan and its implementation. The lead body is Epsom Ewell Borough Council which owns and manages the majority of publically accessible open and green space making up a large part of the Borough's extensive Green Belt. In addition the Borough is the local planning authority and responsible for controlling development within the Borough. It is hoped that over time the group or partnership will develop and involve a wide cross-section of organisations and individuals working to protect and enhance biodiversity in the borough



*Volunteers and staff from the Epsom Common Association, Lower Mole Countryside Management Project, City of London (Ashted Common) and Epsom & Ewell Borough Council working to restore heathland on Epsom Common Local Nature Reserve January 2008.*

## 2.0 Biodiversity within Epsom and Ewell

### 2.1 Habitats

To ensure consistency both nationally and within Surrey this plan is focused primarily on the protection and enhancement of habitats as prioritised in the Surrey BAP, which in turn is guided by the list of priority habitats in the former UK BAP, now superseded by the habitats and species of principle importance listed and covered under section 41 (England) of the NERC Act (2006) Currently across the UK as a whole there are currently 56 habitats of 'Principal Importance'.

Listed below are the currently identified semi natural and urban habitats present within Epsom and Ewell, derived from the currently published Surrey HAPs and Surrey Urban BAP which has four habitat types. It should be noted that a very significant proportion of the land that comprises the Borough of Epsom and Ewell is made up of the habitats in the Surrey BAP and therefore includes the majority of the Boroughs biodiversity. Indeed only one Surrey HAP (Floodplain grazing marsh) is not thought to be present within the Borough. Appendix 3.1 and 3.2 contains a comprehensive list of the locations of the currently identified semi natural 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.

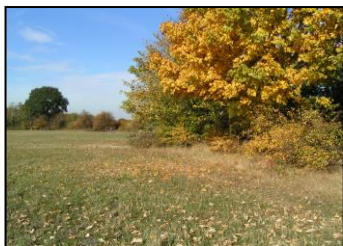
The Surrey HAP's and Urban BAP can be viewed at <http://www.surreybiodiversitypartnership.org/> NEED NEW LINK waiting to hear from JE

#### **Semi Natural habitats: (All are listed as habitats of principal importance in England)**



biodiversity on chalk grassland. For example Juniper Hill on Walton Downs

**Lowland calcareous grassland (Including chalk scrub)** This consists of a mixture of indigenous grasses and herbs occurring on, well-drained, nutrient-poor soils overlaying chalk. For example, Epsom and Walton Downs. 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. A scrub component to chalk grassland is seen as essential in maintaining the highest possible levels of



**Farmland:** This includes species rich/ancient hedgerows and cereal field margins In addition it includes habitats noted either of broad importance or local importance. These are improved grassland, land given over to arable/horticulture, for example, Langley Bottom Farm, Northey Fields and Horton Country Park Local Nature Reserve (LNR).



**Lowland Heathland (Including Acid Grassland and Bog):** Open landscape generally occurring on poor, acidic sandy soils, characterised by dwarf shrubs of the heather family; ling (*Calluna vulgaris*), bell heather (*Erica cinerea*) and cross-leaved heather (*Erica tetralix*). It also includes acidic grassland, scattered trees and open water. For example, the



remnant heathland areas on Epsom Common LNR.



**Lowland Meadows:** This includes Lowland Unimproved Neutral & Dry Acid Grassland. Unimproved grassland is where land has seen little if any intensive farming and has been relatively undisturbed over many hundreds of years. Neutral grassland refers to the pH value of the soils which will be neither too wet nor too dry. Outside of farmland and public open space these can be found in recreational sites, churchyards and road verges for example. Dry acid grassland occurs on sandy or acidic clay soils, often found on heathland and along woodland edges and rides. Examples of these habitats within Epsom and Ewell can be found in Nonsuch Park, the Hogsmill, Epsom Common and Horton Country Park Local Nature Reserves.



**Standing Open Water & Large Reedbeds:**

Includes all Lakes, ponds (including seasonal) and their associated wetland areas and adjoining reedbeds. Epsom and Ewell has remarkably few lakes and ponds and so Great Pond on Epsom Common and the ponds found in several parks and on Horton Country Park are

a very scarce and valuable habitat within the Borough.



**Wetland:** The component habitats under the wetland heading includes streams and their tributaries with their associated reed beds of emergent vegetation, including common reed and sedge opposite open water or not more than 1m wide, and mire. The streams running through Horton Country Park LNR are a good example within the borough.

**Woodland:** In Epsom Yew woodland and wet dominated by trees distinct though as a successional and Ewell contains particularly large. be found across the within Horton Country Park LNR. Woodland can be found on other large open space areas such as Epsom Downs and Nonsuch Park. Wet woodland can be found on Epsom Common and Horton Country Park LNR's



& Ewell this includes Broadleaved mixed and woodland. Woodland is defined as vegetation more than 5m high when mature, forming a sometimes open canopy. Orchards and scrub, stage of woodland, are also included. Epsom several areas of woodland although none is Ancient woodland (existed before 1600 AD) can Borough although the majority (6 of 13) is



**Wood Pasture & Parkland:** This habitat is characterised by a history of grazing amongst trees. The habitat is made up of trees, grazed grass land scrub and sometimes heathland The trees are often large, some of great age, some pollarded; with partially open canopy, and dead wood on the ground. Epsom Common LNR is the boroughs best example of this kind of habitat with potential on Epsom Common and sites such as Nonsuch Park to restore this habitat.

**Urban habitats: All can contain listed habitats of principal importance in England)**





**Managed Greenspace:** This encompasses areas managed primarily for recreation or amenity. It includes orchards, town parks, playing fields and open spaces, green corridors, golf courses, allotments, cemeteries, and churchyards, school and hospital grounds, roadside, corporate grounds, street trees, and private gardens. Within this category also, must be included greenspace managed by local authorities or local communities, sometimes statutory Local Nature Reserves, which may include some semi-natural habitat but which owe

more of their wildlife interest to new planting.



**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, canal side, abandoned allotments, neglected gardens, demolition sites, and other

vacant plots. 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 also 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.



**Urban wetlands:** Rivers, brooks, ponds, and springs, canals, flooded mineral workings, reservoirs, artificial lakes and sewage treatment works.

## 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. 54 species of principal importance are currently (2015) recorded as having been found within Epsom and Ewell, however this may well be an underestimate or overestimate and there is a need to improve the available data and to constantly monitor and search (See Appendix 4) . The process of species of principal importance will be guided by each of the Surrey HAP's which identify key species. Often endangered, these species 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 Surrey HAP's, 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 use of either a single or perhaps several species as Totemic species for the borough is a possibility. For example, the Stag Beetle is a national priority species with a stronghold in Epsom and Ewell.



*Stag Beetle Lucanus cervus*



### 3.0 Current Status and Distribution of biodiversity in Epsom and Ewell

The Borough of Epsom and Ewell covers an area of 3,411 hectares and with a population of approx. 70,000 is the smallest most densely populated District in the County of Surrey. Yet within its borders the Borough has 8 out of the 9 natural habitats and all 4/5 urban habitats covered by the Surrey BAP habitat action plans (all except Floodplain Grazing Marsh) 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. The Borough has 13 'Sites of Nature Conservation Importance'. Included within these are 2 sites of special scientific interest, 3 local nature reserves, 17 Ancient Woods (currently identified 2011), 2 Surrey Wildlife Trust Reserves in addition to very large areas of semi-natural managed open space such as Epsom Downs and Nonsuch Park.

**Please Note:-** Appendix 3 lists by site all the currently known semi natural and urban habitats in Epsom and Ewell. In addition this plan has set as an 'Action' - *Action 5.1.1: Map all priority habitats in Epsom & Ewell*



*Fungi on Epsom Common Local Nature Reserve*



## 4.0 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 mans 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

The following tables serve to illustrate the broad range of environmental factors which can both positively and negatively affect biodiversity across Epsom and Ewell today.

### 4.1 Factors affecting all priority habitats

The following table (Table 1) shows factors which currently apply to all the habitats of principal importance in the Borough. 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.

**Table 1**

Factor	Positive	Negative	Positive Or Negative
Land use change			√
Habitat fragmentation		√	
Land management regime			√
Natural succession			√
Invasive species		√	
Recreational Pressure		√	
Pollution (atmosphereic, water,light)		√	
Climate Change			√
Public awareness			√
Financial Resources			√

## 4.2 Factors affecting semi natural habitats

As a further example the following table (Table 2) shows examples of factors affecting semi natural habitats within the Borough. The list 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.

**Table 2**

<b>Habitats</b>	<b>Factors affecting habitats</b>
<b>Chalk Grassland</b>	Grazing
	Scrub encroachment
	Nutrient enrichment
	Erosion
	Climate change
<b>Farmland</b>	Agri-environment schemes
	Development pressure
	Hedgerow management
	Pollution
	Soil erosion
	Intensive cultivation, fertilisers & pesticides, herbicides
	Climate change
<b>Lowland Heath</b>	Scrub encroachment
	Bracken infestation
	Grazing
	Climate change
<b>Meadows (including lowland unimproved neutral &amp; dry acid grassland)</b>	Scrub encroachment
	Grazing
	Recreational pressure
	Nutrient enrichment
	Climate Change
<b>Open Water &amp; Large Reedbeds</b>	Nutrient enrichment (eutrophication)
	Invasive species
	Silting up/loss of margins
	Fisheries management
	Pollution
	Climate Change
<b>Wetland</b>	Flow management/bank profile

	Pollution
	Invasive species
	Silting up
	Lowering of water table
	Climate change
<b>Woodland</b>	Lack of management
	Invasive species
	Recreational pressure
	Lowering of water table
	Climate change
<b>Wood Pasture &amp; Parkland</b>	Loss of ancient trees/lack of younger trees
	Grazing
	Recreational pressure
	Scrub encroachment
	Climate change

#### 4. 3 Factors affecting urban habitats

The following table (Table 3) shows examples of factors affecting urban habitats within the Borough.

**Table 3**

<b>Habitats</b>	<b>Factors affecting habitats</b>
<b>Managed Greenspace</b>	Lack of/poor management
	Recreational pressures
	Use of pesticides
	Nutrient enrichment
	Invasive species
	Loss of ancient trees and hedges
	Development pressure
	Erosion
	Vandalism
<b>Regenerating habitats</b>	Development pressure
	Use of pesticides
	Invasive species
	Pollution
	Vandalism
<b>Semi natural habitats</b>	Lack of/poor management
	Recreational pressures
	Invasive species
	Development pressure
	Loss of ancient trees and hedges



	Erosion
	Pollution
<b>Urban wetland</b>	Lack of/poor management
	Ponds silting up
	Invasive species
	Pollution
	Development pressure
	Recreational pressure

## 5.0 Potential

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

The methodology behind this plan relies very heavily on being closely integrated with the Surrey HAP's. Consequently with much of the land in Epsom and Ewell falling into the habitats of principal importance included in this plan there is a great deal of potential for not only protecting biodiversity more effectively but also enhancing it, through implementing actions within the Surrey HAP's.

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

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

- An active Epsom and Ewell Biodiversity Working Group or Partnership.
- 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.
- Greater integration of biodiversity in to Planning Policy
- More active involvement of local residents, schools and local businesses in protecting and enhancing biodiversity.

### 5.1 Limiting Factors

Chapter 4 (tables 1 to 3) lists examples of limiting factors which can negatively impact on habitats. In addition and as listed in this chapter above there are broad areas of positive potential for improving and enhancing biodiversity across the borough. Conversely however failure to take up these opportunities will act as a significant limiting factor in this plan's success.

## 6.0 Current Action

### 6.1 Existing biodiversity initiatives and delivery mechanisms in Epsom & Ewell

As described in 1.5 above, 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. Table 4 below shows all the known (2015) activities either conserving, enhancing or monitoring biodiversity in Epsom and Ewell, along with the delivery organisations.

**Table 4**

Activity	Delivery
*Surrey Habitat Action Plans (as listed above)	Surrey Nature Partnership
Epsom & Ewell Green Spaces Strategy	Epsom & Ewell Borough Council
Epsom & Ewell Sustainability Statement	Epsom & Ewell Borough Council, Environment Agency and Epsom & Ewell Environment Forum
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 2005-2015. (NB. succeeded by 2016-2116 plan)	Epsom & Ewell Borough Council, Natural England, Epsom Common Association, Lower Mole Countryside Management Project
Epsom Common Environmental Stewardship Higher Level Scheme 2010 - 2020	Epsom & Ewell Borough Council, Natural England, Forestry Commission and Epsom Common Association
Epsom Common and Horton Country Park Local Nature Reserves European Single Farm Payment Scheme (Basic Payment Scheme from 2015	Epsom & Ewell Borough Council and Natural England
Epsom Downs Management Plan	Epsom & Ewell Borough Council, Surrey Wildlife Trust, Downs Conservators, Lower Mole Countryside Management Project
Horton Country Park Local Nature Reserve Management Plan 2006-2016	Epsom & Ewell Borough Council, Friends of Horton Country Park, Lower Mole Countryside Management Project, Natural England
Hogsmill Local Nature Reserve 2006-2016	Epsom & Ewell Borough Council, Friends of the Hogsmill, Lower Mole Countryside Management Project
Nonsuch Park Management Park	Joint Management Committee, Epsom & Ewell Borough Council, London Borough of Sutton, Surrey County Council, Surrey Wildlife Trust and Nonsuch Watch.
Howell Hill and Priest Hill Nature Reserves	Surrey Wildlife Trust
Stones Road Pond Site of Special Scientific Interest	Surrey County Council, Epsom and Ewell Borough Council, Natural England, Herpetological Conservation Trust, Lower Mole Countryside Management Project
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 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, Herpetological Conservation Trust, Surrey Biological Information Centre
Monitoring and protection of plants	Epsom & Ewell Borough Council, Natural England, Surrey Biological Information Centre, Epsom Common Association, Forestry Commission
Schools wildlife gardens	EEBC, Surrey County Council
Gardens	Residents

\*In the Urban BAP, Surrey Country Council undertake to identify sites which could be vulnerable to development (Action Point B – protection & Designation), and protect them.

## 6.2 Protected sites in Epsom & Ewell

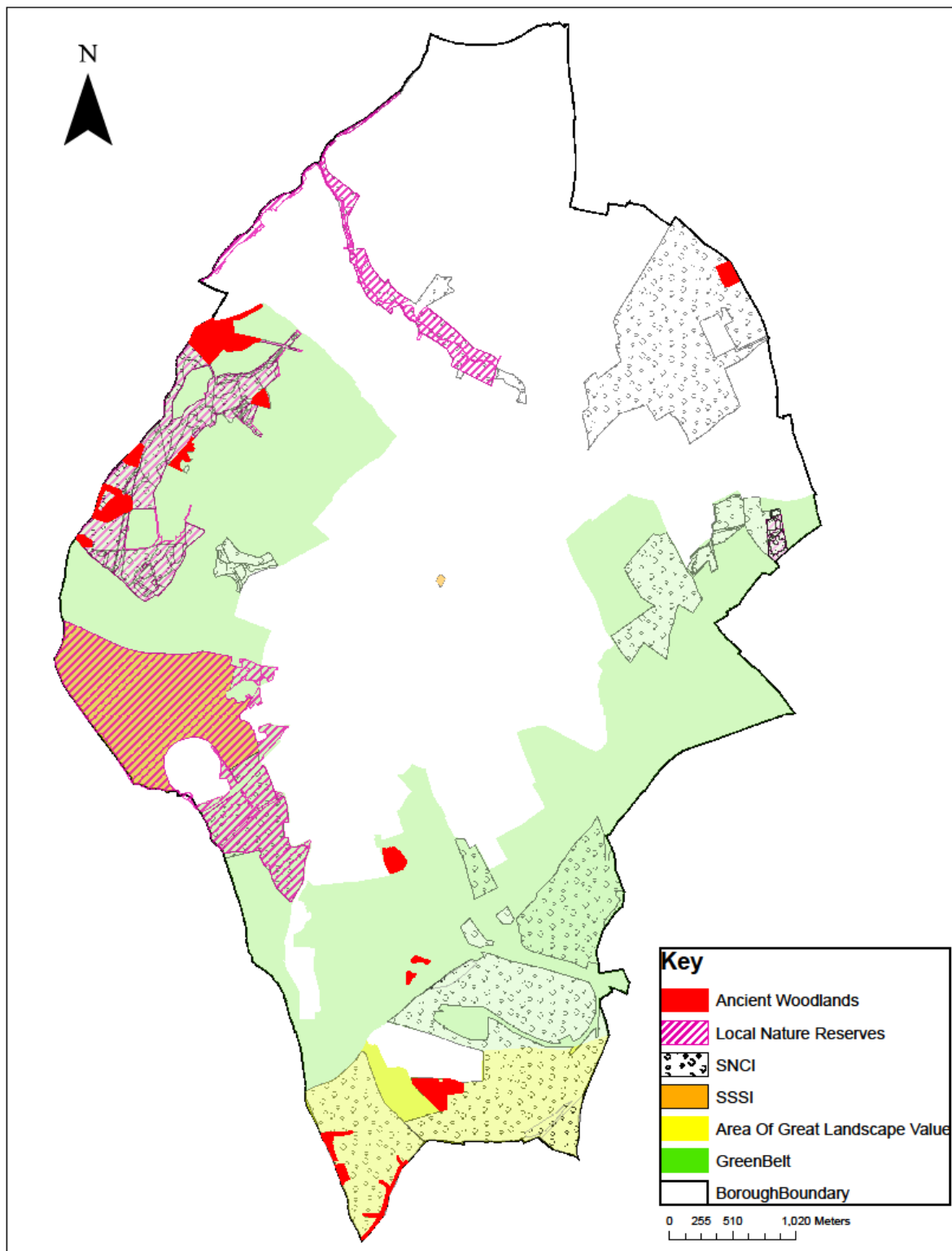
Within Epsom and Ewell there are sites designated for their biodiversity value (See Map 1) and which currently help to protect some of the habitats identified in Chapter Two. The Borough has two Sites of Special Scientific Interest (SSSI) Part of Epsom Common and Stones Road Pond). A SSSI is a nationally important site and affords a very high degree of protection. There are four Local Nature Reserves (LNR) in the Borough including Epsom Common which is Surrey's largest LNR. The other LNR's are Horton Country Park LNR, The Hogsmill LNR and Howell Hill LNR.

Sites of Nature Conservation Importance were designated in the 1990's by Surrey Wildlife Trust and reviewed in 2013. Whilst SNCI are 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 and SNCI now inform the Epsom and Ewell 'Local Development Framework'. There are a total of 13 in the borough including the two SSSI and the four LNR's

Along with national legislation protecting wildlife, for example the 'Wildlife and Countryside Act, the 'Greenbelt', 'Ancient Woodland', 'Protected Hedgerows, 'Tree Preservation Orders' and areas identified as 'Strategic Open Space' in Epsom and Ewell also afford 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, the National Trust (Hatch Furlong) and The Woodland Trust (Warren Farm).



*An Adder on Epsom Common Local Nature Reserve and Site of Special Scientific Interest*



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

## 7.0 Objectives and Targets

The objectives have been developed through an assessment of the information outlined in the preceding chapters of this report.

Targets are the broad measures for achieving the objectives and linking them to Actions. The Surrey BAP 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)

**Please Note:-** In the tables below each *Action* is assigned to a lead organization/individual and where appropriate there are assisting partners organizations/individuals. The 2015 review has enabled some target and actions to be labelled as Achieved, In progress, Void in addition to Ongoing.

**Objective 1:**     **Develop partnerships to ensure that the conservation and enhancement of biodiversity in Epsom and Ewell is maintained in the long term.**

**Target 1.1:**   **Formation of an Epsom and Ewell Biodiversity Working Group or Partnership to implement, monitor and review the Local BAP, 2010**

*Action 1.1.1: Create a constitution for the Epsom & Ewell Biodiversity partnership.*  
**Void**

**Target 1.2:**   **Develop strong links with the Surrey Biodiversity Partnership by 2010. (Now Surrey Nature Partnership Biodiversity Working Group)**

*Action 1.2.1: Ensure a member/s of the EEBAAP partnership attends the Surrey BAP partnership meetings.* **Achieved**

**Target 1.3:**   **Identify and contact active groups involved in efforts to conserve and enhance biodiversity in Epsom and Ewell. Ongoing.**

*Action 1.3.1: Encourage and support active groups.*

**Target 1.4:**   **Create partnerships with private landowners and businesses. Ongoing**

*Action 1.4.1: Encourage improvements to biodiversity by working with the 'Epsom Business Partnership and private landowners.*

**Target 1.5:**   **Establish a working relationship with the Epsom & Ewell Local Strategic Partnership (EELSP), 2010.**

*Action 1.5.1: Ensure a member/s of the EEBAAP partnership attends the EELSP.*  
**Achieved**

ACTION	LEAD	PARTNERS
1.1.1	Epsom & Ewell Biodiversity Partnership (EEBP)	
1.2.1	EEBP	



1.3.1	EEBP	
1.4.1	EEBP	
1.5.1	EEBP	

**Objective 2: Ensure the conservation and enhancement of habitats and species, as specified nationally and in the Surrey Habitat Action Plans.**

**Target 2.1: Identify and prioritise a set of actions for each habitat over a 50 year period.**

*Action 2.1.1: Identify the priority habitats within Epsom & Ewell. **In progress***

*Action 2.1.2: Engage with environmental groups with relevant local knowledge. **Ongoing***

*Action 2.1.3: Assist and support ongoing biodiversity initiatives, for example the 2009/11 Ancient Woodland survey. **Ongoing***

*Action 2.1.4: Identify sites for habitat restoration and creation. **Ongoing.***

**Target 2.2: Ensure all actions to conserve or enhance priority habitats are recorded. **Ongoing.****

*Action 2.2.1: Record actions on the Biodiversity Action Reporting System.*

*Action 2.2.2: Establish a method for recording local biodiversity losses and gains to inform the Local Development Framework and the Annual Monitoring report.*

**Target 2.3: Promote the wider use of positive biodiversity management techniques,-on going.**

*Action 2.3.1: Support existing and develop new (where necessary) conservation grazing projects.*

*Action 2.3.2: Support best practice tree management with respect to biodiversity.*

*Action 2.3.3: Encourage appropriate public access to protect fragile habitats and sensitive species.*

**Target 2.4: Ensure that species with statutory protection and local importance are conserved with necessary habitat protection and management.**

*2.4.1: Seek deferment of hedgerow cutting to mid/late winter to retain berries as food source for birds. **In progress***

*2.4.2: Ensure that information on the location of invasive species is passed to the Surrey Biological Records Centre. **Achieved/Ongoing***

*2.4.3: Identify fragmented habitats and opportunities to address the issue. **In progress***

<b>ACTION</b>	<b>LEAD</b>	<b>PARTNERS</b>
2.1.1	Epsom & Ewell Borough Council (EEBC)	Surrey Biological Records Centre (SBRC)
2.1.2	Lower Mole Partnership (LMP)	EEBC
2.1.3	Epsom & Ewell Biodiversity Partnership (EEBP)	
2.1.4	EEBC	SBRC, EEBP
2.2.1	EEBP	
2.2.2	EEBC	SBRC
2.3.1	EEBP	LMP
2.3.2	EEBC	EEBP, LMP
2.3.3	EEBP	
2.4.1	EEBP	
2.4.2	EEBP	SBRC
2.4.3	EEBC	SBRC

**Objective 3: Ensure opportunities for the conservation and enhancement of the whole biodiversity resource in Epsom and Ewell are identified considered and acted upon.**

**Target 3.1: Ensure conservation and/or enhancement of biodiversity become a key part of the decision making process within the Planning function of Epsom and Ewell Borough Council by 2011.**

*Action 3.1.1: Ensure that all elements of the Local Development Framework contain policies and guidance which aim to conserve and enhance biodiversity reflecting government guidance in the 2012 National Planning Policy Framework. **Achieved***

*Action 3.1.2: Production of a biodiversity supplementary planning document by 2011. **Achieved***

**Target 3.2: Aim to ensure all publically and privately owned Surrey BAP semi natural and urban habitats are covered by management plans by 2015.**

*Action 3.2.1: Prioritise the writing of management plans for those sites considered most valuable and practical. **In progress/Ongoing***

*Action 3.2.2: Encourage landowners of identified priority sites to produce management plans for the conservation and enhancement of biodiversity by 2015. **In progress/On going***

**Target 3.3: Implement a review of existing and potential Sites of Nature Conservation Importance (SNCI) across Epsom and Ewell by 2015.**

*Action 3.3.1: Carry out a review of the extent of SNCIs. **Achieved***

*Action 3.3.2: Identify potential new areas of SNCI. **Achieved***

*Action 3.3.3: Implement a review of the management of SNCIs. **In progress***

**Target 3.4: Work to ensure all Sites of Special Scientific Interest (SSSI) are in favorable condition .**

*Action 3.4.1: Ensure the continuing implementation of Epsom Common's management plan. **Achieved/Ongoing***

*Action 3.4.2: Ensure the completion and implementation of a management plan for Stones Road Pond SSSI. **Achieved/Ongoing***

*Action 3.4.3: Work with Natural England to ensure favorable condition is achieved on the SSSI's in Epsom & Ewell. **Achieved/Ongoing***

<b>ACTION</b>	<b>LEAD</b>	<b>PARTNERS</b>
3.1.1	Epsom & Ewell Borough Council (EEBC)	
3.1.2	EEBC	
3.2.1	Epsom & Ewell Biodiversity Partnership (EEBP)	
3.2.2	EEBP	
3.3.1	EEBC	Surrey Wildlife Trust (SWT)
3.3.2	SWT	EEBC
3.3.3	SWT	EEBC
3.4.1	EEBC	Lower Mole Partnership
3.4.2	Surrey County Council	EEBC, Surrey Amphibian & Reptile Group

3.4.3	EEBC	Natural England
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**Objective 4: Raise awareness, appreciation and involvement in the conservation and enhancement of biodiversity in Epsom and Ewell**

**Target 4.1: Identify and implement ways of making sure current and future activities to conserve and enhance biodiversity are publicised in Epsom and Ewell by 2010**

*Action 4.1.1: Create an Epsom & Ewell LBAP webpage. **Achieved***

*Action 4.1.2: Produce topical material e.g. articles, leaflets, posters, displays etc. **In progress/Ongoing***

**Target 4.2: Identify ways of encouraging greater community involvement in conserving and enhancing biodiversity in Epsom and Ewell**

*Action 4.2.1: Support the national annual 'Biodiversity Week'*

*Action 4.2.2: Produce an annual programme of community involvement initiatives in Epsom & Ewell. **In progress/Ongoing***

*Action 4.2.3: Promote a gardening for wildlife campaign.*

*Action 4.2.4: Promote the Stag Beetle (*Lucanus cervus* Lucanidae) and Oak Tree (*Quercus Robur*) as totemic species for Epsom & Ewell. **Ongoing***

**Target 4.3: Improve awareness of enhancing biodiversity to local businesses and private landowners.**

*Action 4.3.1: Promote the existing national 'Business and Biodiversity Campaign' to 'local businesses and private landowners in Epsom & Ewell.*

<b>ACTION</b>	<b>LEAD</b>	<b>PARTNERS</b>
4.1.1	Epsom & Ewell Borough Council (EEBC)	Surrey Biological Records Centre (SBRC)
4.1.2	Epsom & Ewell Biodiversity Partnership (EEBP)	
4.2.1	EEBP	
4.2.2	EEBP	
4.2.3	EEBP	EEBC, Surrey Wildlife Trust
4.2.4	EEBP	
4.3.1	EEBP	Surrey County Council

**Objective 5: Provide on going monitoring of biodiversity in Epsom and Ewell.**

**Target 5.1: Identify priority habitat distribution in Epsom and Ewell by 2020**

*Action 5.1.1: Map all priority habitats in Epsom & Ewell. In progress*

*Action 5.1.2: Publicise the map locally.*

**Target 5.2: Review monitoring for SNCI's by 2015.**

*Action 5.2.1: Establish with SBIC a baseline for the condition of SNCIs. **Achieved***

*Action 5.2.2: Establish with SBIC, a system for condition monitoring for SNCIs. **In progress***

**Target 5.3: Identify the Surrey species of principal importance within Epsom & Ewell by 2010**

*Action 5.3.1: Monitor the Surrey priority species within Epsom & Ewell. **In progress/Ongoing***

**Target 5.4: Ensure all biological records for Epsom & Ewell are collated, **accessible** and stored by 2012**

*Action 5.4.1: Ensure all biological records including those submitted in support of planning applications are sent to SBIC. **Achieved/Ongoing***

*Action 5.4.2: Ensure all known actions to conserve biodiversity in Epsom & Ewell are recorded on BARS. **Achieved/Ongoing***

**Target 5.5: Put in place mechanisms to monitor the protection and enhancement of biodiversity on development sites.**

*Action 5.5.1: Put in place a role within the planning function at EEBC to implement target 5.5. **In progress***

<b>ACTION</b>	<b>LEAD</b>	<b>PARTNERS</b>
5.1.1	Epsom & Ewell Borough Council (EEBC)	Surrey Biological Record Centre (SBRC)
5.1.2	EEBC	Epsom & Ewell Biodiversity Partnership (EEBP)
5.2.1	Surrey Wildlife Trust (SWT)	EEBC
5.2.2	SWT	EEBC
5.3.1	EEBC	SBRC
5.4.1	EEBC	SBRC
5.4.2	EEBP	
5.5.1	EEBC	

**Objective 6: Seek to increase the funding available for the long term conservation, enhancement and monitoring of biodiversity in Epsom and Ewell.**

**Target 6.1: Identify the costs associated with delivering Objectives 1 to 5 by 2020.**

*Action 6.1.1: Cost the delivery of the following:-*

*Objectives - 4 & 5*

*Target - 3*

*Actions – 3.2.1, 3.3.1, 3.4.1 & 3.4.2*

*Action 6.1.2: Identify funding sources that could be used to deliver Action 6.1.1*

<b>ACTION</b>	<b>LEAD</b>	<b>PARTNERS</b>
6.1.1	Epsom & Ewell Biodiversity Partnership (EEBP)	
6.2.2	EEBP	

**Objective 7:      Seek to identify the wider benefits to the community of improving biodiversity.**

**Target 7.1: Identify the economic and health benefits of conserving and enhancing biodiversity.**

*Action 7.1.1: Using available sources of information, promote the economic and health benefits of biodiversity in Epsom & Ewell. **Ongoing***

<b>ACTION</b>	<b>LEAD</b>	<b>PARTNERS</b>
7.1.1	Epsom & Ewell Borough Council	Epsom & Ewell Biodiversity Partnership



## References

1	A Biodiversity Action Plan For Sussex 1998 Sussex Biodiversity Partnership
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
7	EEBC Nature Conservation Strategy, 1992 (Draft)
8	EEBC Sustainability Strategy, 2001
9	Epsom & Walton Downs Habitat Management Plan, 2003 (2nd draft)
10	Farmyard HAP, 2002. Farmland WG
11	Guidance for Local BAPs, nos.1-4, undated. UK Local Issues Advisory Group (1997)
12	Lowland Heathland (including Acid Grassland & Bog),HAP, 1999. LH HAP WG.
.	Lowland Unimproved Neutral & Dry Ac id Grassland, HAP, 2002.

	LUMDAG WG.
	Planning Policy Statement 9: Biodiversity & Geological Conservation, 2004 (Draft)
	SCC Biodiversity & Nature Conservation SPG. 2002 (Draft)
16	SCC Rural Strategy. Action Plan 2003
17	Small Blue Species Action Plan, 2004 (Draft)
18	Species Of Conservation Importance In Surrey. Framework for establishing a special audit. Helen Burges on behalf of the Surrey Biodiversity Partnership March 2007
19	Spelthorne Biodiversity Action Plan 2008-2010 Second Draft 05 March 2008
20	Standing Open Water & Large Reed beds HAP, 2002. SOWLR WG
21	Surrey BAP, 1999. Surrey Biodiversity Partnership
22	. Surrey Road Verge HAP, 2004 (Consultation Draft).
23.	Surrey Structure Plan, 2002 (Deposit Draft).
24	University of Surrey 'Provision of Accessible Greenspace in Epsom & Ewell, 2003

25	Urban BAP 'Wildlife on your doorstep' 2002. UKBAP Working Group
26	Wetland HAP (rivers, streams, fen, marsh, swamp, linear reed bed, 2002. Wetland HAP WG.
27	Woodland HAP, 2002. Woodland HAP WG
28	Wood Pasture & Parkland HAP, 2002. WP & P WG.
29	Writing Borough Biodiversity Action Plans – A brief guide. William Moreno London Biodiversity Partnership

## Abbreviations

<b>AGLV</b>	Area of Great Landscape Value
<b>AW</b>	Ancient Woodland
<b>BAP</b>	Biodiversity Action Plan
<b>BLP</b>	Borough Local Plan
<b>CA</b>	Conservation Area
<b>CG &amp; S</b>	Chalk Grassland & ~Scrub
<b>EEBC</b>	Epsom & Ewell Borough Council
<b>F</b>	Farmyard
<b>GB</b>	Green Belt
<b>HAP</b>	Habitat Action Plan
<b>LA21</b>	Local Agenda 21
<b>LH</b>	Lowland Heathland
<b>LNR</b>	Local Nature Reserve
<b>LUNDAG</b>	Lowland Unimproved Neutral & Dry Acid Grassland
<b>NNR</b>	National Nature Reserve
<b>OSR</b>	Open Space & Recreation
<b>RVHAP</b>	Road Verges Habitat Action Plan
<b>SAP</b>	Species Action Plan
<b>SBAP</b>	Surrey Biodiversity Action Plan
<b>SBP</b>	Surrey Biodiversity Partnership
<b>SCC</b>	Surrey County Council
<b>SCV</b>	Special Conservation Verges
<b>SNCI</b>	Site of Nature Conservation Importance
<b>SOW</b>	Standing Open Water & Large Reed beds



<b>SSP</b>	Surrey Structure Plan
<b>SSSI</b>	Site of Special Scientific Interest
<b>UBAP</b>	Urban Biodiversity Action Plan
<b>We</b>	Wetland
<b>Wo</b>	Woodland
<b>WG</b>	Working Group
<b>WP &amp; P</b>	Wood Pasture & Parkland

## Semi Natural Habitats in Epsom & Ewell

**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

CALCAREOUS GRASSLAND & SCRUB (11 sites)	
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
FARMLAND (7 Sites)	
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?)
Lowland Heath (3 sites)	
Location/ Name	Area (H) If known
Epsom Common Bramble Heath	0.3
Epsom Common Castle Heath	0.35
Epsom Common Horton Heath	0.5

<b>MEADOWS</b> (Including lowland unimproved neutral & dry acid grassland) (2 sites)	
<b>Location/ Name</b>	<b>Area (H) If known</b>
Epsom Common	6
Horton Country Park	
<b>OPEN WATER &amp; LARGE REEDBEDS (2 sites)</b>	
<b>Location/ Name</b>	<b>Area (H) If known</b>
Epsom Common – 6 ponds	
Horton Country Park - 12 ponds	
<b>WETLAND (10 sites)</b>	
<b>Location/ Name</b>	<b>Area (H) If known</b>
Epsom Common streams x4	
Horton Country Park streams x6	
<b>WOODLAND (28 sites)</b>	
<b>Location/ Name</b>	<b>Area (H) If known</b>
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	
<b>WOOD PASTURE &amp; PARKLAND (2 sites)</b>	
<b>Location/ Name</b>	<b>Area (H) If known</b>
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 as defined in the Surrey BAP. 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
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		
St. Mary's Churchyard		
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		
<b>Private Gardens</b>		
<b>Urban Semi Natural Habitat (5 sites)</b>		
<b>Location/ Name</b>	<b>Semi natural habitat (If known)</b>	<b>Area (H) If known</b>
Hogsmill Local Nature Reserve	Meadows:Woodland: Wetland	38.3
Dancer Dick Wood	Woodland	
Grafton Road SCC land		
Lower Mill	Woodland	
Nonsuch Park	Woodland: Meadows	
<b>Regenerating Habitats (sites)</b>		
<b>Location/ Name</b>	<b>Semi natural habitat (If known)</b>	<b>Area (H) If known</b>
<b>Urban Wetlands (14 sites)</b>		
<b>Location/ Name</b>	<b>Area (H) If known</b>	
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

The following list contains the species of principle importance that have been found within the Borough of Epsom & Ewell. Please note the list is under constant review and 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.

Common Name	Latin Name	Location (if known)	Date
Common Toad	Bufo bufo	Epsom Common	11/05/2014
Great Crested Newt	Triturus cristatus	Epsom Common - Blake's Pond	27/05/2015
Stag Beetle	Lucanus cervus		22/06/2015
Cuckoo	Cuculus canorus	Epsom Common	20/01/2014
Curlew	Numenius arquata	Hogsmill local nature reserve	02/08/2004
<b>Grasshopper Warbler</b>	<b>Locustella naevia</b>		<b>06/05/1990</b>
<b>Grey Partridge</b>	<b>Perdix perdix</b>		<b>20/08/1989</b>
House Sparrow	Passer domesticus	Epsom Common	01/01/2013
Lapwing	Vanellus vanellus	Epsom Common	01/01/2013
Lesser Redpoll	Acanthis cabaret	Epsom Common	01/01/2013
Reed Bunting	Emberiza schoeniclus	Epsom Common	01/01/2013
Spotted Flycatcher	Muscicapa striata	Hogsmill local nature reserve	02/08/2004
<b>Tree Pipit</b>	<b>Anthus trivialis</b>		<b>04/05/1987</b>
Turtle Dove	Streptopelia turtur	Hogsmill local nature reserve	02/08/2004
Wood Warbler	Phylloscopus sibilatrix	Epsom Common	01/01/2013
Yellowhammer	Emberiza citrinella	Epsom Common	01/01/2013
Skylark	Alauda arvensis	Epsom Downs	
Song thrush	Turdus philomelos	Epsom Common	
Linnet	Carduelis cannabina	Epsom Common	
Lesser spotted woodpecker	Dendrocopos minor	Horton Country park	
Starling	Sturnus vulgaris	Horton Country park	
Yellow Wagtail	Motacilla flava		
Dunnock	Prunella modularis		
Bullfinch	Pyrrhula pyrrhula		
Brown Hairstreak	Thecla betulae	Orchard Meadow (HCP)	23/02/2015
Small Blue	Cupido minimus	Howell Hill	06/06/2013
Small Heath	Coenonympha pamphilus	Epsom Common Compartment 9	09/07/2015
White Admiral	Limenitis camilla	Epsom Common	12/07/2014
<b>White-letter Hairstreak</b>	<b>Satyrrium w-album</b>	<b>Epsom Common - Stew Pond</b>	<b>15/06/1992</b>
European Eel	Anguilla anguilla	Hogsmill local nature reserve	
Brown Long-eared Bat	Plecotus auritus	Horton Country Park, bat roost	22/01/2014
European Water Vole	Arvicola amphibius	Horton Country Park	06/03/2006
<b>Harvest Mouse</b>	<b>Micromys minutus</b>	<b>Epsom Common</b>	<b>13/03/2000</b>
Hazel Dormouse	Muscardinus avellanarius	Epsom Common - Rye Meadow	19/05/2014
Noctule Bat	Nyctalus noctula	Poplar Meadow (HCP)	21/07/2013
Soprano Pipistrelle	Pipistrellus pygmaeus	Epsom Common - Stew Pond	22/05/2012
<b>West European Hedgehog</b>	<b>Erinaceus europaeus</b>	<b>Epsom Common</b>	<b>06/06/2000</b>

Mottled rustic	<i>Caradrina morpheus</i>	Horton Country Park	
Buff Ermine	<i>Spilosoma luteum</i>	Epsom Common Compartment 4	23/06/2014
September Thorn	<i>Ennomos erosaria</i>	Epsom Common Compartment 4	23/06/2014
White Ermine	<i>Spilosoma lubricipeda</i>	Epsom Common Compartment 4	23/06/2014
Grey Dagger	<i>Acronicta psi</i>	Nonsuch Park	12/06/2006
Small square spot	<i>Diarsia rubi</i>	Nonsuch Park	12/06/2006
Cinnabar	<i>Tyria jacobaeae</i>	Horton Country Park	
Chamomile	<i>Chamaemelum nobile</i>	Epsom Common	01/08/2013
Man Orchid	<i>Aceras anthropophorum</i>	Howell Hill	06/06/2014
Chalk eyebright	<i>Euphrasia pseudokernerii</i>	Juniper Hill	
Juniper	<i>Juniperus communis</i>	Juniper Hill	
Penny Royal	<i>Methna pulegium</i>	Roseberry Park	
Adder	<i>Vipera berus</i>	Epsom Common	14/05/2014
Common Lizard	<i>Zootoca vivipara</i>	Epsom Common	20/07/2014
Grass Snake	<i>Natrix natrix</i>	Epsom Common	07/06/2014
Slow-worm	<i>Anguis fragilis</i>	Epsom Common	26/06/2011



