



Epsom & Ewell

Biodiversity Action Plan



Progress report for 2019

Introduction

During 2019 the Epsom & Ewell Local Biodiversity Action Plan (LBAP) Working Group oversaw good progress in implementing the plan which can be viewed here:

<https://www.epsom-ewell.gov.uk/sites/default/files/documents/residents/planning/planning-policy/BiodiversityActionPlan.pdf>

The importance of 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.

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 and today over 40% of priority habitats and 30% of priority species are declining nationally.

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!

The 'Working Group' currently comprises the following individuals:

Ruth Ormella: Head of Place Development, Epsom & Ewell Borough Council

Stewart Cocker: Countryside Manager, Epsom & Ewell Borough Council

Sarah Clift: Senior Countryside Officer, Epsom & Ewell Borough Council

Peter Howarth: Countryside Officer (Ecologist) Epsom & Ewell Borough Council

Jeremy Young: Tree Officer, Epsom & Ewell Borough Council

John Edwards: County Ecologist, Surrey County Council

Alastair Kirk: Surrey Biological Record Centre Manager, Surrey Wildlife Trust

Helen Cocker: Countryside Partnerships Manager

Kevin Morgan: Locally based ecologist and environmental consultant

The plan contains 7 objectives, comprising 23 targets with 45 actions. It should be noted that the 'Working Group' has no set budget to directly assist in implementing the plan and consequently is restricted to a coordinating/prioritising role with the plan as an essential guide and tool. That said, members of the 'Working Group' continue to be able to contribute to the implementation of the plan through the course of their normal duties

The plan does have suggested dates for the achievement of actions which assists in prioritisation but does not at this stage provide a measure of success or failure, especially given the current time and resource constraints on those working to implement the plan.

This report summarises progress made during 2019 under the plans seven objectives. Where appropriate updates from previous reports are given along with new items for 2019. **Please note activities reported on can contribute to and be relevant to more than one objective.**

TV presenter and naturalist **Chris Packham** is a wildlife expert, photographer and author with a passionate concern for conservation and the environment. In 2012 Chris agreed to write the foreword for the Epsom & Ewell Local Biodiversity Action Plan.



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 2012

Progress during 2019

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

Update:- During 2019 the Surrey Local Nature Partnership (SNP)-Biodiversity Working Group continued in its role of assisting the SNP board with identifying biodiversity priorities and to promote better coordination of biodiversity initiatives across the County. EEBC are represented on the Group. Priorities for the working group include, formal adoption and revision of Biodiversity Opportunity Areas (BOA's), revision of criteria and formalising the process of designating Sites of Nature Conservation Importance (SNCI), supporting volunteer recording efforts across the County and influencing local decision making on matters such as tree planting and new national requirements such as 'Biodiversity Net Gain' within the planning system.



Pond Wood in Horton Country Park Local Nature Reserve, designated 'Ancient Woodland', SNCI and part of a Surrey Woodland BOA

Update:- The proposed service level agreement (SLA) between the Surrey Biological Records Centre (SBIC) and Epsom & Ewell Borough Council (EEBC) was unable to progress during 2019 due to pressure of work at SBIC. It is hoped that progress can be made during 2020. An SLA would build on the 2015 no cost data exchange agreed for the Borough's Open Spaces, with all newly recorded data sent to the records centre from which it is freely accessible by EEBC. The aims of the proposed SLA are to improve knowledge and information exchange regarding all species and in particular protected species which should assist with planning applications, Surrey BAP habitat mapping and tackling invasive exotic species.

Update:- EEBC continues to strongly support local groups actively involved in conserving and enhancing biodiversity within the Borough. For example, the Epsom Common Association, Nonsuch Voles and the Lower Mole Partnership (LMP), formerly the Lower Mole Countryside Management Project. The name change reflects changes made following a review of the Surrey Countryside Management Projects. There is now one board overseeing the work of the Lower Mole, Downlands and Heathlands Partnerships with EEBC continuing to be a funding partner in the Lower Mole Partnership. The EEBC Countryside Team has continued with a weekly volunteer conservation task held on Thursdays. During 2019, 506 volunteer days were recorded, carrying out practical conservation work closely aligned to the LBAP, which has a value of approximately £27,830 using the Heritage Lottery valuation of unskilled volunteer work at £55 per day per volunteer. Please note: - some work is classed as skilled and could command a higher value of £100 per day per volunteer. NB another task cancelled due to extreme heat during 2019!



Volunteers from Ashted Common, Lower Mole Partnership and EEBC Countryside Team at the January 2019 Epsom & Ashted Commons Joint Task



Lower Mole Partnership volunteers improving a section of the Round the Borough Hike & Bike route in Horton Country Park LNR April 2019.



A Friend of Rosebery Park copping a willow in the wildlife area February 2019



Countryside Team Volunteers managing scrub in the old Stones Road Allotment site February 2019

Update:- During 2014 the Woodland Trust purchased a very large area of land at Langley Bottom Farm to create a First World War memorial woodland. This is a major initiative for the Trust who now have a WW1 memorial wood in England, Scotland, Wales and Northern Ireland. The farm is partly in the Boroughs/Districts of Epsom & Ewell, Mole Valley and Reigate & Banstead. The initiative will protect and hopefully enhance the biodiversity of this land in perpetuity. The Trust has held public consultation events for local residents and has consulted with EEBC and neighbouring districts. In 2015 the Trust were informed by the Forestry Commission that an Environmental Impact Assessment (EIA) was required due the scale of the tree planting proposals. Similarly an EIA has also been requested by the three district planning authorities (Epsom & Ewell, Mole Valley and Reigate & Banstead) for the car parking, paths and visitor centre proposal. After the successful completion of the EIA the Trust recommenced tree planting during 2017 and 2018 following guidelines that aim to ensure a balance is maintained between new woodland and areas retained as either arable fields to conserve rare arable plants and bird nesting habitat or grazed fields to conserve



View across Langley Bottom Farm

calcareous grassland. In 2019 planning permission was granted for the car park and paths which will enable the site to begin receiving visitors and assisting the Trust in managing the site.

Update:- In 2014 the new Surrey Wildlife Trust (SWT) Nature Reserve and SNCI at Priest Hill was opened, representing a huge gain for biodiversity in the Borough. The reserve was set up following negotiations between the Developer, EEBC and SWT and allowed for a small number of houses to be built on 'Green Belt' whilst protecting the vast majority of the land in perpetuity through the creation of the nature reserve which SWT have agreed to take on and manage. During 2018 SWT were granted planning permission for a new pond to enhance the reserve. During 2019 Surrey Wildlife Trust held an away day for Trustees and staff using Priest Hill Nature Reserve as an example of what could be achieved by 'biodiversity net gain' approach being introduced nationwide in to the planning system via new Local Plans.



Aerial photograph of new ponds on the nature reserve near to Banstead Road Spring 2018

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

Update:- During the Autumn of 2015 Horton Country Park Local Nature Reserve received a potentially very significant habitat enhancement. To assist the developers of the adjacent former West Park Hospital the Council were agreeable to the creation of two off-line balancing ponds to manage excess surface water run-off from the former hospital site that has been redeveloped for housing and is now called Nobel Park. In return the developers agreed to the creation of a new wetland using the Greenman Stream that flows through the Country Park from its source on Epsom and Ashted Commons. Both the balancing ponds and the wetland have the potential to provide a significant habitat enhancement and both will be closely monitored and managed to maximise their benefit. During 2019 both the wetland and balancing ponds have continued to naturalise. For example, young Great Crested Newts have been recorded in the smaller balancing pond which is retaining water as planned, providing a new pond.



New balancing pond in Horton Country Park LNR just after construction January 2016 and September 2018



Emperor dragonfly laying eggs in the new wetland in Horton Country Park LNR



Great Crested Newt eft found in the new balancing pond in Horton Country Park LNR

Update: During September 2017 'Field Pond' in Horton Country Park LNR was part de-silted by the Lower Mole Partnership using funds provided by the Lower Mole Trust and Friends of Horton Country Park. In recent years 'Field Pond' has been successfully protected from dogs by a fence (See report under Objective 4). The pond is being closely monitored and the signs during summer 2019 were that its spectacular revival of recent years has been consolidated.



Field Pond in Horton Country Park LNR April 2019



Field Pond in Horton Country Park LNR shortly after de-silting in September 2017 and again in June 2019

New: During early 2018 Rosebery Park pond was de-silted and in January 2019 coir rolls were installed along the pond edge and seeded with native plants to encourage wildlife. During summer 2019 the pond was abuzz with dragonflies! Along with the much improved water quality and recently installed bat boxes it is hoped that Rosebery Park has had a significant biodiversity improvement.



Coir rolls being installed January 2019 and the pond edge in August 2019

Update:- Managing public access plays a very important role in protecting fragile habitats, especially on busy urban fringe sites like Epsom Common LNR, Hogsmill LNR and Horton Country Park LNR. For example, the provision of good quality footpaths and bridleways helps to protect the nationally and internationally important wildlife on the Epsom & Ashted Common Site of Special Scientific Interest. On Epsom Common LNR during 2019 Lower Mole Partnership volunteers constructed and installed new memorial benches and Countryside Team volunteers carried out a woodland edge management task. The continued management of woodland edge habitat on Epsom Common has brought both ecological benefits but also made for a much more open and safer feeling experience for visitors. The restored woodchip path through Riverview Copse on the Hogsmill Local Nature Reserve helps encourage residents to use the reserve and get closer to nature.



EEBC Countryside Team Volunteers carrying out woodland edge management on Epsom Common LNR March 2019



Lower Mole Partnership volunteers installed a new memorial bench on Epsom Common LNR spring 2019



Lower Mole Partnership volunteers improving the entrance in to Horton Country Park LNR from Noble Park April 2019



Path restoration in Horton Country Park LNR following a successful bid for CIL funds by the Friends of Horton Country Park Autumn 2019

Update:- In 2012 EEBC and the City of London paid jointly for a National Vegetation Class (NVC) survey of Epsom and Ashted Commons as a follow up to the 2001 NVC survey. The survey highlighted the progress made in diversifying habitats especially through the re-introduction of grazing. However, the report also highlighted the continuing loss of species rich grassland to scrub encroachment. To address this the Countryside Team Volunteers commenced a restoration programme during late summer 2013 which is continuing with the aim of both restoring areas and ensuring long term maintenance. This process was continued during 2019 with volunteer's returning to Churchside Meadow, Christchurch Glade, Baron's Meadow and Railway Meadow.



Epsom Common LNR Railway Meadow, EEBC Countryside team
volunteers raking up cut grass August 2019

Update:- Despite again some serious vandalism to electric fencing at the start of the season grazing on Epsom Common took place successfully again during 2019 with 15 cattle from early May to early-September. The herd again comprised of Belted Galloway and Dexter crosses. Volunteers once again played a vital role carrying out daily checking and maintaining the grazing area to ensure the continued success of the Borough's flagship habitat conservation and enhancement initiative. The nature conservation benefits of grazing continue to surprise and delight all those involved. Of particular note are the significant increases in butterfly populations and flowering plant species and strong indications that current management is benefiting the reptile population in particular Adders.



Epsom Common LNR summer 2019, cattle arriving at Rye Meadow for the summer, OH DEAR! April 2019
 Countryside Team volunteers in a tangle putting up the electric fencing and Lindsay Coomber pointing to
 the proper way to reel in the fence, September 2019

Update:- Work to restore and protect veteran trees on Epsom Common LNR and Horton Country Park LNR took place again during winter 2018/2019 with canopy reduction work carried out on veteran trees on Epsom Common and Horton Country Park. This twenty year programme of works is carried out using funds secured through the Environmental Stewardship Higher Level Scheme 2010-2020.

Update:- In 2015 veteran trees were identified as 'Heritage Assets'. Development proposals that involve or have an impact upon an identified Heritage Asset, or its wider setting, will be required to provide an assessment of the Asset, the potential impacts on the Asset and any appropriate mitigation measures that will be required. In 2017 the initial process of mapping potential veteran trees across the Borough, was completed. The eventual aim is to provide a comprehensive inventory of veteran trees to help ensure their retention as 'Heritage Assets'. During

2018 and 2019 survey work commenced. Two Wards Town and Cuddington are completed and Auriol Ward is being surveyed.



Epsom Common LNR veteran tree survey work



Veteran Oak discovered in Mounthill Gardens, Epsom October 2017

Update:- Woodland management at Horton Country Park LNR under the Environmental Stewardship Higher Level Scheme continued during 2018/2019. A contractor thinned a section of Butcher's Grove and volunteers re-coppiced a section of Butcher's Grove, dismantled deer fencing at Godbold Copse and Hollymoor Grove, as previous coppice matures and worked on woodland edge at Hendon Grove



Godbold Copse in Horton Country Park LNR
EEBC Countryside Team volunteers
dismantling deer fencing February 2019



Hendon Grove in Horton Country Park LNR, EEBC
Countryside Team volunteers creating woodland edge
habitat April 2019



Butcher's Grove in Horton Country Park LNR, Primroses are returning as a result of coppicing! March 2019

Update:- Since the 1960's more than 90% of orchards have been lost in England. During 2012/2013 EEBC worked with the London Orchard Trust (Now called the Orchard Trust) to restore two orchards in Horton Country Park LNR, formerly both were within the Long Grove Hospital Grounds. During 2019 volunteer effort focused on clearing encroaching scrub from both Lambert's Orchard and Long Grove Orchard



Horton Country Park LNR Countryside Team volunteer's receiving a pre-task briefing from Lindsay Coomber in Lambert's Orchard May 2019



Lambert's Orchard in Horton Country Park LNR scrub cleared to protect young fruit trees May/ 2019



Horton Country Park LNR in Long Grove Orchard EEBC Countryside team volunteer's clearing encroaching scrub September 2019

Update:- Work continues to conserve and enhance grassland in Horton Country Park LNR. Rotational cutting of rough grassland has been taking place since 2008 using a rotational approach, which prevents the grassland disappearing under encroaching scrub. 2019 saw the continuation of this vital habitat maintenance work carried out by both volunteers in the most sensitive areas (Ant Hills) and by an EEBC tractor using a hired flail collector.



Horton Country Park LNR, using funds from the Environmental Stewardship scheme an EEBC tractor using hired flail collector cuts and clears Slip Meadow. September 2019

At Horton Country Park LNR a hay crop continues to be taken in cooperation with the Equus Equestrian Centre. Flower rich meadows have

declined by 97% since the 1930's making the hay meadows in the Country Park an unusual and special sight.



Horton Country Park LNR Great Ridings



Horton Country Park LNR hay making in Little Westcotts summer 2014

Update:- During 2019 work was again carried out to help conserve a very species rich area of Chalk grassland (internationally scarce) at Juniper Hill on Epsom & Walton Downs. The Downs Keeper's have been trying to keep scrub from encroaching for many years and volunteer's from the Countryside Team and Lower Mole Partnership assisted again clearing both grass and encroaching scrub and helping conserve flower rich chalk grassland including Kidney Vetch the food plant of the scarce Small Blue Butterfly and the rare Round Headed Rampion.



Juniper Hill, Epsom Downs, Round Headed Rampion September 2019



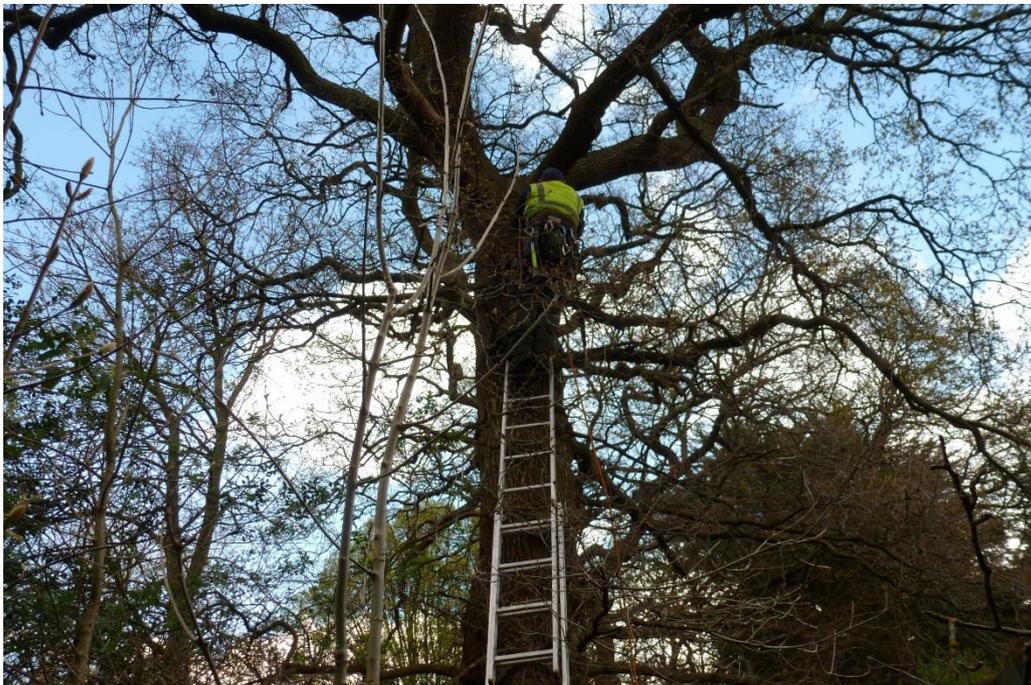
Juniper Hill, Epsom Downs Countryside team volunteers cutting and clearing chalk grassland September 2019

The Small Blue butterfly continues to benefit from creating scrapes which involves using a small excavator to remove top soil and expose the less fertile chalky substrate which encourages the growth of Kidney Vetch, the larval food plant for the butterfly. In addition at their new Priest Hill nature Reserve, Surrey Wildlife Trust have also been creating suitable habitat by removing the tarmac from former tennis courts and spreading Kidney Vetch seed from nearby Howell Hill Nature Reserve on the exposed chalk. With known breeding populations identified at Warren Farm, Howell Hill Nature Reserve and Epsom Downs it was hoped that the Small Blue would colonise the Priest Hill scrapes. During the summer of 2015 Small Blue were discovered on the reserve. **SUCCESS!**



Howell Hill Nature Reserve, Small Blue Butterfly laying an egg
on Kidney Vetch

New:- In April the Friends of Shadbolt Park paid for and had several bat boxes installed in some of the parks large oak trees by the Council's tree contracture Advanced Tree Services. The Countryside Team will be monitoring the boxes for signs of activity in the coming years.



Bat boxes being installed at Shadbolt Park April 2019

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

Update:- In 2015 the EEBC Countryside Team began to take on a new role of scrutinising and advising on the ecological aspects of planning applications in the Borough, making better use of the available in house expertise and helping ensure the implementation of Development Management Policy Document DM 4 'Biodiversity and nature Conservation/New development' (See below). During 2017 the Countryside Team became formal consultees in the planning process providing in-house expert advice on biodiversity and in particular protected species and trying to ensure no net loss of biodiversity. The role and policy continue to prove effective with advice given for numerous applications which have been significantly improved with regard to biodiversity. This consolidates a key aim of the LBAP, 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'.

DM 4 Biodiversity and Nature Conservation

2.16 The term '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. Maintaining biodiversity helps to promote the stability, sustainability and resilience of ecosystems, is an important national objective and a 'Duty' for all public bodies as defined by the Natural Environment & Rural Communities Act 2006. The Borough's location on the edge of the countryside is strategically important, with the Green Belt and the many green spaces within the built up areas acting as reservoirs for flora and fauna.

2.17 Conserving and enhancing biodiversity are important objectives in meeting the Borough's aim of achieving no net loss of biodiversity, in line with Paragraph 118 of the National Planning Policy Framework. Development that fragments existing habitats will be avoided and, where possible, opportunities to create links (green corridors) to those habitats

that are already isolated will be identified and realised. We will actively seek opportunities to increase biodiversity within the Borough, which will include, where possible, the creation of new habitats. For example, within the Hogsmill Local Nature Reserve a number of stretches of the River Hogsmill have been identified in the South London River Restoration Strategy as potential sites for river enhancement or restoration.

2.18 In cases where there is no alternative location for the proposed development, the applicant must provide evidence that a sequential approach has been applied and that there will be no net loss of biodiversity. We consider reasons of overriding public interest as being related to human health, public safety and the beneficial consequences of primary importance for the environment.

2.19 The Council has adopted a document entitled “Biodiversity and Planning in Epsom and Ewell” for development management purposes. The guide assists in the process of identifying when and where biodiversity in Epsom and Ewell will need to be protected by the planning system, as well as assisting in identifying opportunities to deliver biodiversity enhancements.

Policy DM4: Biodiversity and New development

Development affecting existing or proposed nature conservation sites and habitats of international, national or local importance will only be permitted if:

(i) The development would enhance the nature conservation potential of the site or is proven to be necessary for the conservation management of the site; or

(ii) there is no alternative location for the development and there would be no harm to the nature conservation potential of the site; or

(iii) there are imperative reasons of overriding public interest for the development

Elsewhere in the Borough:

Development affecting any site or building that supports species protected by Law, including their habitats, will only be permitted if appropriate

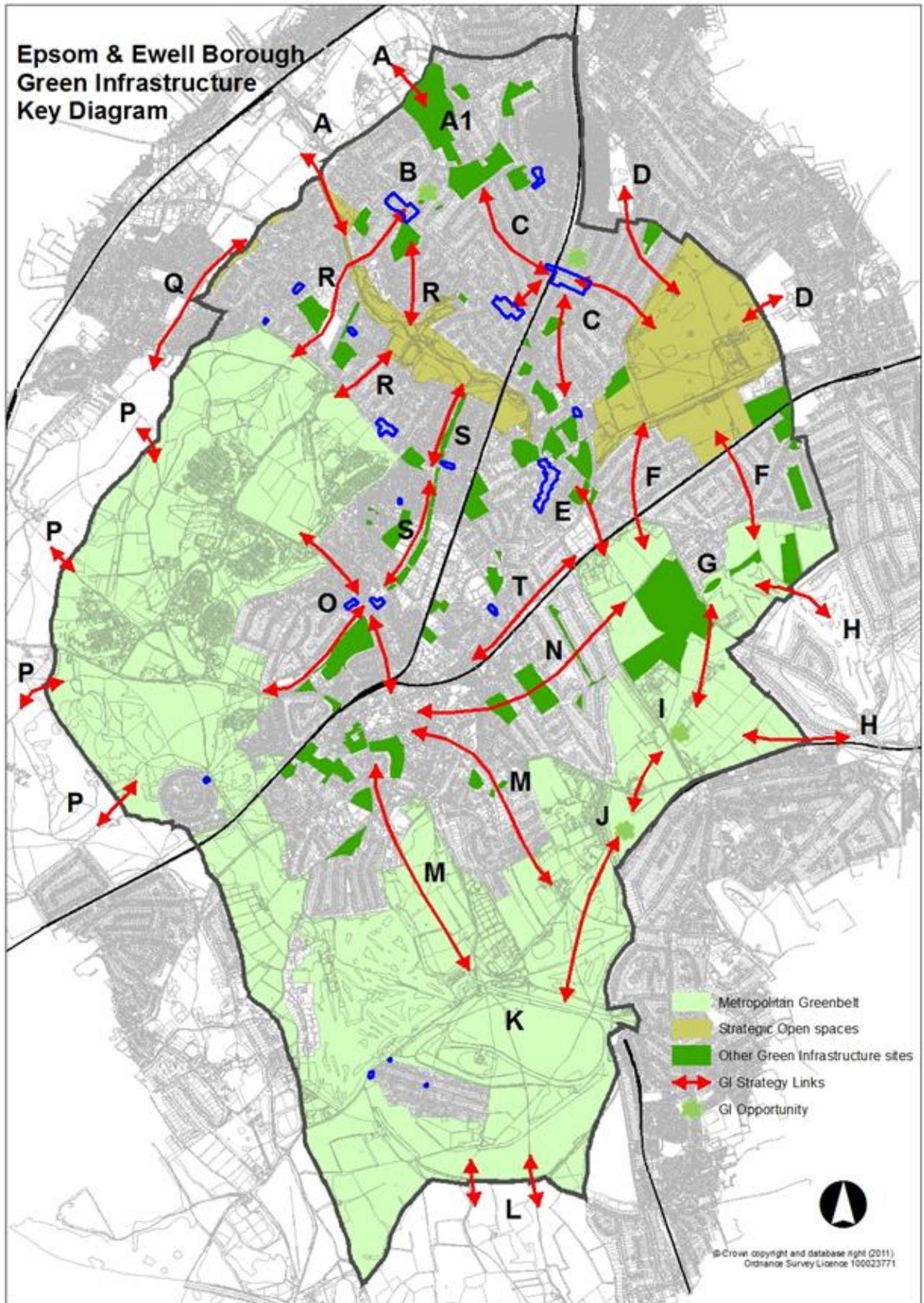
mitigation and compensatory measures are agreed to facilitate the survival of the identified species, keep disturbance to a minimum and provide adequate alternative habitats to ensure no net loss of biodiversity.

Mitigation and compensatory measures will be secured through planning obligations or conditions, with priority for such measures to be provided within the development.

Whether or not there are any species or habitats that enjoy statutory protection, every opportunity should be taken to secure net benefit to the Borough's biodiversity. To this end, an assessment of the existing nature conservation assets on a development site should be undertaken at the application stage and suitable biodiversity enhancements proposed.

Update:- The forthcoming Green Infrastructure policy was again delayed during 2019 and it is hoped that progress can be made during 2020. The Green Infrastructure policy will identify potential green corridors across the Borough and links to neighbouring boroughs and Greater London. (See Map below)

**Epsom & Ewell Borough
Green Infrastructure
Key Diagram**



Update:- In 2019 the Borough still has the highest proportion of Sites of Nature Conservation Importance (SNCI) in active management in Surrey. The government’s ‘Single Data Set’ uses the measure of SNCI in active conservation management to monitor the current condition of the nation’s biodiversity. The Borough currently has 13 SNCI with 10 currently under active conservation management giving Epsom & Ewell the highest score in Surrey, 77% (Average 44%). During 2015 the “Local Sites” committee designated two new SNCI in Epsom & Ewell. These are the small Thames Water covered reservoir site on Epsom Downs where a site visit in summer 2014 discovered the presence of the Small Blue Butterfly, along with several species of orchid. Langley Bottom Farm now owned by the Woodland Trust was also designated with approximately one third of the farm located in Epsom & Ewell. The farm is of particular note for its arable plants and also includes ‘Ancient’ Woodland.



Pyramidal Orchids at the Thames Water site with Queens Stand in the background summer 2014

Update:- Site management plans continue to play a crucial role in coordinating work across our open spaces and helping to secure funding. Management Plans ensure a consistent and planned approach to the management of biodiversity in the Boroughs open spaces. The plans for Horton Country Park LNR 2017-2117 and the Hogsmill LNR 2017-2117 join the Epsom Common plan 2016-2116 in taking a **100 year** approach, emphasising the need to take a very long term approach to managing biodiversity.



Maintaining the enthusiasm, morale and skills of our volunteers is essential; photographs above show the Countryside Team volunteers on their annual away day, which in May 2019 was to the Weald & Downland museum and some of our monitoring volunteers on a Dragon and Damselfly identification session at Great Pond on Epsom Common. The Management Plans also identify a programme of public access improvements and the photo above shows machinery used to restore a section of path in Horton Country Park LNR during summer 2019

Update: During 2015 the South East Rivers Trust (SERT) became the hosts for the Hogsmill Catchment Partnership, facilitated by both DEFRA and the Environment Agency. The partnership aims to work with stakeholder's, including EEBC to influence the management of the water

environment and to coordinate projects, partnership working and funds more effectively to realise multiple benefits (for example, biodiversity, water quality, flood risk management, local amenity, enhancing health and wellbeing)

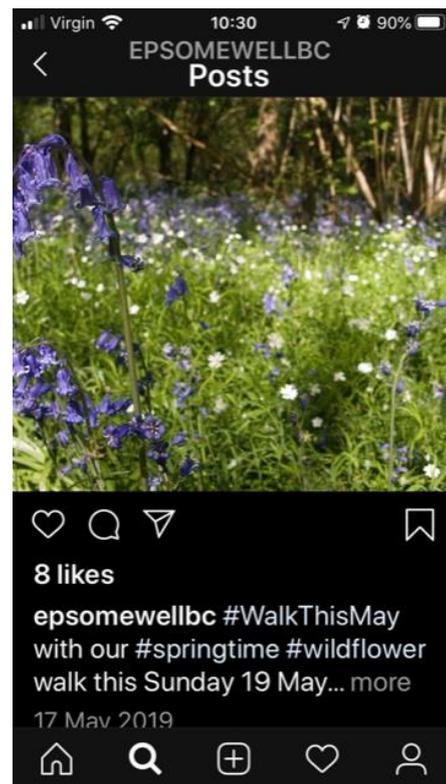
During 2016 and 2017 as a catchment partnership priority SERT worked with the Environment Agency and Thames water to monitor both the Epsom and Ewell 'Storm tanks' which are designed to manage raw sewage during periods of high rainfall. The monitoring indicated that discharges of raw sewage in to the Hogsmill River are quite frequent and the Catchment Partnership have indicated a desire to work towards a long term solution that reduces or ideally prevents any raw sewage being discharged. During 2019 with the agreement of Thames water notices were posted in the reserve warning that the water can be polluted. The Hogsmill Catchment Partnership has also identified and prioritised a project to create a wetland at Chamber Mead. During 2018 funds were secured from the Environment Agency to plan the project and during October 2018 test holes were dug which confirmed that the ground conditions are suitable for the proposed wetland. During 2019 SERT commissioned a report outlining the various options for the scheme and two consultation events were held to inform local residents of the plan. During 2020 it is hoped that funds can be secured to carry out the project which will be a major biodiversity enhancement that would build on the projects of recent years such as weir removal and naturalising the river channel and banks.



Hogsmill LNR, South East Rivers Trust staff holding a public consultation event at Chamber Mead September 2019

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

Update:- During 2019 the Borough’s Magazine ‘Insight’ which goes to all households in the Borough and the ‘E-Insight’ electronic newsletter continued to help raise awareness of biodiversity and green issues with one of the Borough’s key priorities being “keeping our Borough clean and green”. Articles included, coverage of the low water flows in the Hogsmill River, highlighting the improvements to Horton Country Park paths, Countryside Guided Walks and the 20 mile “Hike & Bike” events using a signed route linking the Boroughs five main open spaces. The Council continued with the use of Instagram to help raise awareness of biodiversity with photos of our sites and conservation volunteers in action, impressive insects and more. All helping to raise awareness of the Boroughs natural environment and the opportunities to get actively involved.



E-Insight article and an Instagram post from 2019

Update:- In 2014 this report highlighted the need to protect the ecology of a pond in Horton Country Park LNR from constant daily disturbance by dogs. ‘Field Pond’ which is used for pond dipping had become a shadow

of its former self with very few aquatic species able to tolerate the constant daily disturbance. Using a small grant from a local County Councillor the pond was fenced by the Lower Mole Partnership volunteers and a new notice was placed on the gate leading to the pond, explaining the need for dog owners to stop their pets entering the pond. During the summers of 2015, 2016, 2017, 2018 and 2019 a pond dip for a local Beaver Group has discovered an astonishing recovery with the return and much greater abundance of aquatic life. The notice is still in place after six years which is very positive and an indication that visitors are willing to help address the issue of long term incremental damage to habitats on nature reserves due to public access.



Horton Country Park LNR Field Pond surveying for Great Crested Newts spring 2017



Horton Country Park LNR Field Pond gate, fence and notice

Update:- EEBC continues to raise awareness by encouraging active participation in site management. This is achieved through walks, talks, events, leaflets, the web site, regular weekly conservation tasks, through working with 'Friends Groups', local youth groups and support for the Lower Mole Countryside Partnership.



Horton Country Park LNR, glorious autumn colours, Countryside Team Volunteers heading home at the end of an autumn task in Emmets's Mead. October 2019



Epsom Common LNR a view of Epsom Common Day July 2019



Epsom Common LNR local Scouts pulling bracken and helping the cattle manage Horton Heath summer 2019

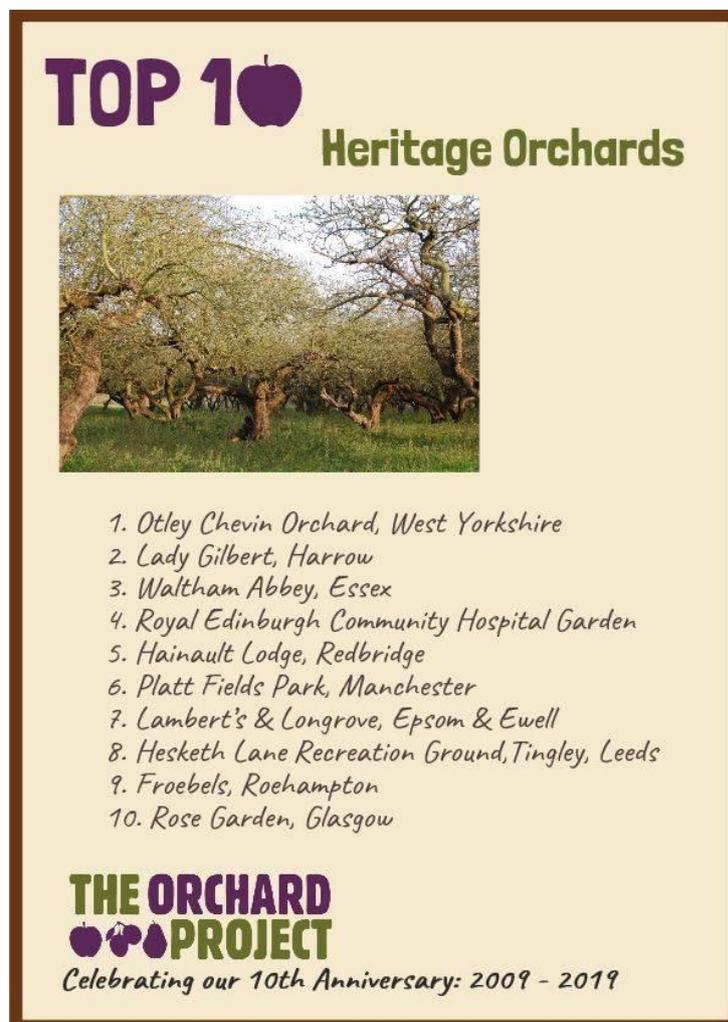


Epsom Downs, Countryside Team volunteers taking part in the 20 mile Round the Borough Bike event September 2018

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

Update:- The Countryside Team is continuing to develop and improve its monitoring role within the Boroughs three local nature reserves and has also started to record the Borough more widely with the assistance of volunteers and local experts. During 2019, 118 volunteer days of biological monitoring was provided valued at approx. £6,499 if valued at the unskilled rate of £55 per day.

Update:- During 2019 work to monitor and conserve the orchards in Horton Country park LNR continued with further volunteer tasks and liaison with The Orchard Project. In 2019 The Orchard Project announced that Lambert's Orchard was one of their UK top ten heritage orchards!



Update:- The nationally scarce dragonfly (Downy Emerald) and a new and notable species of damselfly (White legged) were both seen again on

Epsom Common LNR during 2019 suggesting they are established. The Downy Emerald sighting in 2016 was the first recorded since 1989 and the White legged damselfly does not appear to have been previously recorded. Both species indicate that on-going habitat management is effective.



Epsom Common LNR a Downy Emerald dragonfly on the edge of great Pond May 2016



Epsom Common LNR a White Legged damselfly in Rye Meadow June 2017

Update: 2019 is a fallow year for the Epsom & Ashted Commons breeding bird survey with the next survey due in 2021. During 2019 the puzzling absence of Yellow Hammers continued despite the suitable habitat and their recent presence in Great Pasture on Epsom Common. We can only assume that Epsom Common is subject to the reported national decline of this migratory bird, perhaps for reasons outside of the UK.



A Great Spotted Woodpecker in Rye Meadow Epsom Common LNR



A Chiffchaff singing in Great Pasture Epsom Common LNR

Update:- In 2014 and 2015 moth surveys were carried out on Epsom Common LNR which is a nationally important site for invertebrates especially those associated with veteran trees which are of international importance. During summers, 2016, 2017, 2018 & 2019 moth surveys were carried out on Horton Country Park LNR. The surveys have found two nationally scarce species the Dotted Fan Foot (*macrochilo cribrumalis*) and (*Elegia Similella*), along with an abundance of orchard species resulting from the 2017 & 2018 surveys being carried out in Lambert's Orchard. Some spectacular moths from 2019 are pictured below. Further surveys are planned for 2020.



Horton Country Park LNR, Figure of eight moth (*Diloba caeruleocephala*) autumn 2019



Horton Country Park LNR, Figure of eight moth (*Diloba caeruleocephala*) autumn 2019



Horton Country Par LNR Frosted Green (*Polyplocaridens*) autumn 2019



Horton Country Par LNR, Green Arches (*Anaplectoides prasina*) autumn 2019

Update:- The project to monitor reptiles on Epsom Common Local Nature Reserve set up between the Countryside Team and the Surrey Amphibian and Reptile Group (SARG) continued during 2019. Results again confirm that Epsom Common is a very important site for Adders and there is a very widespread distribution of Grass Snakes



Checking a refuge on Epsom Common LNR



Adder on Epsom Common LNR

Update:- The Countryside Team and volunteers continued to monitor butterflies on a weekly basis over the summer using agreed transects and submitting records to the national database for Epsom Common LNR, Horton Country Park LNR and Hogsmill LNR. In addition Butterfly Conservation volunteers submit records for Nonsuch Park, Howell Hill Nature Reserve, Priest Hill Nature Reserve, Warren Farm and Juniper Hill. Summer 2019 turned out to be a good year for butterfly numbers. For



Epsom Common LNR Purple Hairstreak summer 2019

example, on Epsom Common LNR in 2019 butterfly numbers were like 2018 significantly up, compared to 2016 & 2017. For example, on Epsom Common LNR in 2015 recorders had 950 sightings of 24 species, whilst in 2016 there were only 473 sightings of 25 species. In 2017 there were 829 sightings of 22 species, in 2018 there were 1196 sightings and 26 species and in 2019 there were 995 sightings and 26 species. Juniper Hill on Epsom Downs again had 31 species recorded indicating the importance of calcareous grassland to many butterfly species. The magnificent Purple Emperor was spotted again in 2019 on Epsom Common LNR and volunteers have spotted Brown Hairstreak eggs laid on young Blackthorn stems in a number of locations in Horton Country Park and Hogsmill Local Nature Reserves.



A very difficult to photograph White Letter Hairstreak butterfly resting in the canopy of a large English Elm in the Hogsmill LNR summer 2016



Tiny (size of a pin head) Brown Hairstreak butterfly egg laid on young Blackthorn Stem in Horton Country Park LNR

New:- During 2019 a baseline survey was commissioned by EEBC looking at the invertebrate population within the grazed areas on Epsom common. The survey included several control locations outside of the grazed areas for comparison. The results were impressive with a total of 673 species of invertebrate recorded. Of these, twenty-nine species have a conservation designation. A notable discovery were two species of invertebrate associated with the very old crab apple trees in Rye Meadow these were, the first records of the arboreal spider *Episinus maculipes* and the Schedule 41 Lace-bug *Physatocheila smreczynskii* (which was selected as a key indicator of ancient orchards) and for which this is the only known site in the county!

Update:- Work to produce draft priority habitat and species of principle importance maps for Epsom & Ewell, with assistance from the Surrey Biological Records Centre is still planned but continues to be delayed.

Due to the prolonged delay in 2019 a new approach was agreed with EEBC using the UK Habitats Classification system to map the Borough's habitats. Work commenced during 2019 and is expected to take two years.

To assist with the process of mapping species of principle importance as defined by the Natural Environment and Rural Communities Act 2006, Countryside Officer Pete Howarth has to date identified 113 species of principle importance in the Borough.

Update:- Monitoring for dormice described previously has continued during 2019 including the tubes located on Epsom Downs near Juniper Hill in 2018. Unfortunately, no dormice have been found in the boxes on Epsom Common or Epsom Downs but monitoring will continue. This result and including the confirmed presence on Ashted Common and Horton Country Park LNR in 2017 is informing the future management of our woodland and efforts to monitor their presence using boxes and tubes will continue during 2019.



The Dormouse found on Epsom Common LNR
February 2012



Volunteers positioning Dormouse boxes on
Epsom Common LNR winter 2013/14

Update:- EEBC Countryside Officer and expert ecologist Pete Howarth has continued surveying ponds for Great Crested Newts during 2019. Of particular note were the 17 Great Crested Newts found in the recently restored Field Pond in Horton Country park LNR and the discovery by a Natural England Survey of Great Crested Newt DNA in Round Pond in Nonsuch Park, which like Field Pond has recently been fenced off by Lower Mole Partnership volunteers to reduce use by dogs.



Countryside Officer Pete Howarth surveying Stones Road SSSI for Great Crested Newts spring 2018



Photo taken at Blakes Pond on Epsom common LNR shows the difference in size between the Smooth Newt and the Great Crested Newt

During 2019 Pete has received and input bat records from the Surrey Bat Group, planning applications and local nature reserves surveys using the EEBC Recorder database. Following the 2018 discovery of the Borough's largest recorded bat roost (116 Soprano Pipistrelle recorded emerging), surprisingly from the flat roof of some 1960's flats in Ewell another small bat roost was discovered in 2019 in the home of one of our monitoring volunteers! In addition, Pete organised several bat watching evenings assisted by staff and volunteers over the summer period. Our bat recording aims to gain a clearer understanding of the location of bat roosts in the Borough and has already indicated the importance of data collected via planning applications.



Epsom Common LNR a Harp Trap being used for the woodland bat survey



Epsom Common LNR a captured Pipistrelle bat being measured during the woodland bat survey may 2017



Epsom Common LNR a captured Brown Long Eared bat about to be released during the bat survey August 2018



Epsom Common LNR a captured Noctule bat just released during the woodland bat survey may 2017

Update:- During 2014 the Zoological Society of London (ZSL) approached the Countryside Team and Lower Mole Partnership to ask for volunteer assistance with their “Riverfly” project which monitors aquatic invertebrates to warn of poor water quality in rivers. Subsequently, a small volunteer network has been formed to help monitor water quality in the

Hogsmill River and this has continued to operate successfully during 2019. This successful partnership working is coordinated by the Hogsmill Catchment Partnership, lead by the South East Rivers Trust, with results helping to inform the Environment Agency about the quality of water in the river.

The Hogsmill Needs You!

Volunteers needed for river monitoring








The Zoological Society of London is offering training in the **River Monitoring Initiative (RMI)** sampling method. The RMI is a national scheme for monitoring the health of rivers developed by the Riverfly Partnership.

In order to be trained in the RMI you must be able to sample the river for at least 6 months. Once at the river, samples take about 20 minutes and are taken a minimum of every 2 months.

In the Training you will learn;

- The background of the RMI.
- How to kick sample a river.
- How to identify river invertebrates.
- What to do with the RMI data.

You will also meet other volunteers working up and down the Hogsmill River. Everyone involved in the scheme will have a day out at London Zoo.

The training will take place at Kingston University, Knights Park Campus on

Saturday April 26th
11am to 3pm

To book a place or for more information please contact : Joe.Pecorelli@zsl.org

Update:- During 2016 the Hogsmill Partnership put out a request for volunteers to carry out an Outfall Safari. This involved surveying stretches of the river and with the help of a mobile app, mapping and recording the impact of outfalls. The aim was to greatly improve the understanding of

the river system and help to target sources of pollution. Volunteers from the EEBC Countryside Team and the Lower Mole Partnership took part. During 2017 the South East Rivers Trust presented the results to the Catchment Partnership and the results are as hoped helping to target sources of pollution. During 2019 volunteers have continued to monitor and report with training and a further volunteer recruitment campaign planned for 2020.

Please help Survey Outfalls on the Hogsmill River



As a result of misconnected plumbing, pollution can find its way into urban rivers via surface water outfalls (drains). **The Hogsmill Partnership** is looking for volunteers to help conduct the Hogsmill's first **Outfall Safari**. This involves surveying stretches of the river and, with the help of a mobile app, mapping and recording the impact of outfalls. This survey will greatly improve our understanding of the river system and help to target sources of pollution. The survey will take place during:

October 2016

Once registered you will receive a full briefing on how to take part. You can choose which stretch of the river you want to survey and conduct the survey at a time that is convenient to you as long as it is within the survey period of October 2016. Where possible the survey will be conducted from the footpath by the side of the river but, in parts, it may be necessary to walk in the river where it is safe to do so. All training and equipment will be provided by ZSL.

Briefing sessions for volunteers will take place at:

Horton Country Park, 10am on September 20th
Kingston University, 2pm on September 22nd

For more information contact Joe.Pecorelli@ZSL.org, 07974725557

Please register your interest to help at : hogsmilloutfalls.eventbrite.co.uk

Once registered more information will be sent to you about where and when the briefing sessions will take place.



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

Update:- Currently externally sourced funding is in place helping deliver management of biodiversity for both Epsom Common and Horton Country Park Local Nature Reserves until 2020. The key source is the 2010-2020 Environmental Stewardship Higher Level Scheme, along with the new Countryside Stewardship Basic Payments Scheme, which is the successor to the European Single Farm Payments Scheme.



Tools and equipment used by the Countryside Team volunteers are paid for and maintained using externally sourced funds. Countryside Team volunteer using electric brush cutter September 2019



Management of the grazed areas on Epsom Common LNR is paid for using externally sourced funds. Photo shows the end of season scrub management taking place on Great Pasture in Epsom Common LNR September 2019

Update:- During 2019 funds have continued to be provided on a small scale via donations from the Lower Mole Trust and the Epsom Common Association. Private individual have also donated funds for the construction of several benches. In recent years, funds from the Lower Mole Trust have enabled the Lower Mole Partnership volunteers to successfully de-silt Lambert's Pond and Field Pond in Horton Country Park LNR and carry out work to help conserve 'Round Pond' in Nonsuch Park, which like 'Field Pond in Horton Country Park LNR, was being affected by both over shading vegetation and disturbance by dogs. A new fence has been constructed using donations and a grant from the Lower

Mole Trust. During 2019 both ponds have continued to recover with far fewer dogs entering the water and causing disturbance.



Nonsuch Park Lower Mole Partnership volunteers building a fence to protect Round Pond from dogs July 2017



Lower Mole Partnership volunteers installed a new memorial bench on Epsom Common LNR spring 2019

Update:- The South East Rivers Trust (SERT) continued working with EEBC and the Environment Agency to improve the ecology of the Hogsmill River using grant aided funding. Delivering a programme of bank side and in river habitat improvements has continued during 2019. The work of removing scrub along the banks of the river continued in 2019 letting more light reach the river channel, allowing aquatic plant life to create natural berms that help scour the river bed and naturalise the river channel see photos below. The major work carried out in 2013 and 2014 to remove two large weirs from the Hogsmill River in Epsom & Ewell and remove the concrete bed and walls at the confluence where the Green Lanes Stream joins the Hogsmill River also continues to naturalise. Further significant improvements are being discussed/planned via the Hogsmill Catchment Partnership, see Objective 3 above for further details.



Volunteers from the South East Rivers Trust using tree branches to help restore the Hogsmill River October 2019



Hogsmill LNR photo taken Autumn 2016 showing natural berm that has formed following Countryside Team volunteers opening up the overgrown banks of the Hogsmill River in autumn 2015



Hogsmill LNR same location as photo opposite taken in autumn 2015 at the end of the task showing clearly what a big difference managing bankside vegetation can make!

Update:- The Lower Mole Partnership volunteers have continued during 2019 to manage the Stones Road SSSI using funds provided by Surrey County Council. In addition the Lower Mole Partnership continues to manage the 'Buffer Zone' located in the disused allotment site using funds received from the developers of the Lintons Lane housing development. The buffer zone provides additional habitat for Great Crested Newts including a new pond and is also reducing misuse issues on the former

allotment site. Future use of the allotment is being considered by Epsom & Ewell Borough Council, with consideration being given to retaining much-needed terrestrial habitat for Great Crested Newts. During 2018 a survey of Great Crested Newt numbers took place that is informing plans with a medium population identified by the survey. In 2019 the Countryside Team Volunteers assisted the Lower Mole Partnership by carrying out a scrub management task in the 'Buffer Zone' and the former allotment site which looks set to be confirmed as a nature reserve with the aim of protecting habitat for the Great Crested Newts.



Countryside Team Volunteers managing scrub in the old Stones Road Allotment site February 2019



Lower Mole Countryside Management Partnership volunteers constructing the new Buffer Zone pond in 2013 and view of the now established pond.

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

Update:- Both nationally and internationally there is an increasing understanding that we need to incorporate the benefits (services) provided by biodiversity and natural processes in to our economic models. The government has published a watershed document the 'UK Ecosystem Assessment' which shows very clearly how we undervalue our natural resources and the services they provide. The result of under valuing 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.

Some of our open spaces in Epsom & Ewell are showing signs of strain due to high visitor numbers with woodland wildflowers and aquatic life in ponds under pressure from constant daily disturbance as described above.



Horton Country Park LNR Pond Wood, photograph shows bluebells receding from the path edge with the much-loved carpet of bluebells now some distance from the path

A recent example of the actual costs that can accrue was the need to restore Great Pond Dam on Epsom Common in 2012 as illustrated in the photos below, due to erosion caused by dogs entering the pond.



Erosion damage to the dam of Great Pond on Epsom Common LNR caused by dogs. Autumn 2012 repairs cost £18500

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 and in some cases very costly environmental impacts are avoided.

During 2018 the Surrey Nature Partnership (SNP) <https://surreynaturepartnership.org.uk/> to which EEBC is affiliated through the Surrey Nature Partnership Biodiversity Working Group, published a Natural Capital Investment Plan for Surrey following several years of work under its Valuing Surrey Project and its vision of a healthy, green Surrey with a prospering economy. The project has focused on developing an understanding of the value of the counties natural assets, which underpin the provision of ecosystem services, 30% of which are thought to be in decline in Surrey. The majority of us are guilty of taking the natural environment and the services we derive from it for granted. In Surrey, the continued resilience of our economy is dependent on a healthy, functioning landscape. The Valuing Surrey project aims to help develop an understanding of the natural capital of Surrey and communicate this message to a wide range of organisations and individuals. For example, in 2017 the project delivered an estimate of £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. We hope the

project will also inform ways of working and policy in other Local Enterprise Partnerships and Local Nature Partnerships.” 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>

In 2018 The SNP via Surrey Wildlife Trust published [**The State of Surrey's Nature**](#), providing a current stock-take of the county's biodiversity. The report aims to quantify our most threatened wildlife but also celebrates why Surrey's biodiversity is so special. This will help clarify responsibilities to both national and international conservation, and serve to further inform our priorities at the county level. It will also be a base-line from which to measure future biodiversity trends and changes.

Conclusion:

2019 has seen further progress in implementing the plan, which continues to play a significant role in coordinating and guiding efforts to conserve and enhance biodiversity in the Borough. **A BIG THANK YOU from the Working Group to all the volunteers who have helped conserve and enhance biodiversity in the Borough during 2019 in all weathers!**



Farewell to Countryside Team volunteer Roy Yarlett, who moved to Devon in November 2019, after many years of dedicated volunteering! Seen here felling his last tree in Horton Country Park LNR on a woodland edge management task. October 2019

If you have any questions or you would like to find out more about the implementation of the Epsom & Ewell Local Biodiversity Action Plan please call 01372 732000 and ask to speak to the Countryside Team or email countryside@epsom-Ewell.gov.uk