

Epsom & Ewell Biodiversity Action Plan



Progress report for 2016

Introduction

During 2016 the Epsom & Ewell Local Biodiversity Action Plan (LBAP) Working Group oversaw significant progress in implementing the plan which can be viewed here:

<http://www.epsom-ewell.gov.uk/EEBC/Environment/Biodiversity.htm>

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:

Mark Berry: 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

Conor Morrow: Project Officer, Lower Mole Countryside Partnership

Kevin Morgan: Locally based ecologist and environmental consultant

The plan agreed in 2010 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 2016 under the plans seven objectives. Where appropriate updates from previous reports are given along with new items for 2016. **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 2016

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 2016 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 are how best to achieve the governments 'Biodiversity 2020' targets, 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) and supporting volunteer recording efforts across the County. Following the production by Surrey Wildlife Trust of BOA's policy statements in 2015, the working group has been investigating ways of implementing a delivery strategy for BOA's, which in Epsom & Ewell includes woodland and a chalk grassland BOA. BOA are recognised in EEBC planning policy and the policy statements are set to play a role in defining the Boroughs forthcoming 'Green Infrastructure' policy.



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 and Epsom & Ewell Borough Council (EEBC) has been progressed during 2016 and is set to be agreed in 2017. This builds 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 European protected species which should assist with planning applications, Surrey BAP habitat mapping and 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 2016, 419.5 volunteer days were recorded, carrying out practical conservation work closely aligned to the LBAP which has a value of approximately £23,072 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)



Volunteers from the South East Rivers Trust restoring the Hogsmill River March 2016



Volunteers from the Lower Mole Partnership on Epsom Common LNR constructing a new gate to extend the Great Pasture grazing area spring 2016



Epsom Common Association ECOVOL John Turner moves charcoal made on Epsom Common LNR to the store at Horton Country Park LNR summer 2016



Countryside Team Volunteers cutting and clearing encroaching scrub to conserve calcareous grassland at Juniper Hill on Epsom Downs summer 2016



The flower rich calcareous grassland at Juniper Hill is an internationally scarce habitat

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 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 and visitor centre proposal. The Epsom & Ewell Biodiversity Working Group continues to support the Woodland Trust, by providing the meeting room at West Park Farm, Horton Country. In November 2016 the EEBC Countryside Team Volunteers assisted the Trust by carrying out woodland management work to clear a new path through Great Hurst Wood an Ancient Woodland. Following the successful completion of the EIA the Trust have recommenced tree planting following guidelines that 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 calcareous grassland.



Countryside Team Volunteers helping the Woodland Trust at Langley Bottom Farm to create a new woodland path autumn 2016

Update:- In 2014 the new Surrey Wildlife Trust (SWT) Nature Reserve and SNCI at Priest Hill was opened. This is 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. In January 2016 following on from 2015 the EEBC Countryside Team volunteers assisted SWT Ranger Rachael Thornley by planting a new hedge.



Countryside Team Volunteers planting a new hedge at Priest Hill Nature Reserve winter 2016

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 2016 nature has started to work its magic! See photos.



New wetland in Horton Country Park LNR immediately after completion November 2015 and August 2016



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

Update:- Managing public access plays a very important role in protecting fragile habitats especially on busy urban fringe sites like Epsom Common LNR and Horton Country Park LNR. The provision of good quality footpaths and bridleways is helping to protect the nationally and internationally important wildlife on the Epsom & Ashted Common Site of Special Scientific Interest as well as the rich biodiversity of Horton Country Park LNR. During 2016 volunteers dug a new ditch alongside the recently restored path on Epsom Common to help protect the new path surface and installed new land mark posts helping to bring a sense of place to this very large nature reserve. The creation of woodland edge habitat along Pepys Way also on Epsom Common has brought both ecological benefits but also made for a much more open and safer feeling

experience for walkers along this well used path. New benches alongside paths on the Hogsmill Local Nature Reserve help encourage residents to use the reserve and get closer to nature.



Work taking place to create woodland edge habitat along Pepys Way winter 2016



Hogsmill LNR, one of 4 new benches constructed and installed by Lower Mole Partnership volunteer's summer 2016



Epsom Common LNR new drainage ditch dug by Lower Mole Partnership volunteer's spring 2016



Epsom Common LNR new land mark post being installed by Lower Mole Partnership volunteer's spring 2016

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 areas 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 in 2016 with volunteer's returning to Churchside Meadow, Christchurch Glade, Baron's Meadow, Railway Meadow and for the first time Common Side Meadow.



Epsom Common LNR Common Side
Meadow species rich grassland restoration
summer 2016

Update:- Grazing on Epsom Common took place successfully again during 2016 with 31 cattle from early May to mid-September. The herd comprised of Belted Galloway and Dexter crosses. 2016 also saw a significant increase in size to the largest grazing area called 'Great Pasture' with the inclusion of 'West Heath'. Volunteers played a vital role again during what was a very wet early summer 2016, 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 grazing is benefiting the reptile population in particular Adders.



Epsom Common LNR summer 2016, cattle grazing on West Heath (part of the 2016 extension), very wet and boggy conditions along the fence line and a volunteer maintaining the fence line

Update:- Work to restore and protect veteran trees on Epsom Common LNR and Horton Country Park LNR took place again during winter 2014/2015 with canopy reduction work carried out on veteran trees on Epsom Common and Horton Country Park. This twenty year programme of works is carried using funds secured through the Environmental Stewardship Higher Level Scheme 2010-2020.

New:- 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 2016 a process of mapping veteran trees across the Borough was commenced that aims to provide a comprehensive inventory of veteran trees to help ensure their retention as 'Heritage Assets'.



Epsom Common LNR veteran tree survey work autumn 2014



Veteran Oak Pollard adjacent to a residential area in Manor Park, Epsom

Update:- Woodland management at Horton Country Park LNR under the Environmental Stewardship Higher Level Scheme continued during 2015/2016 with volunteers playing a vital role planting hundreds of hazel trees and erecting deer fencing following felling work carried out by themselves and contractors.



Horton Country Park LNR contractor chipping brush in Hendon Grove winter 2016



Horton Country Park LNR volunteer using a billhook to shave a point on to a deer fencing stake in Godbold Copse winter 2016



Horton Country Park LNR volunteer planting future Sweet Chestnut coppice in Godbold Copse winter 2016

In 2015 for the first time since Lower Mole Partnership volunteer's recommenced restorative coppicing in Butcher's Grove in 1983, coppicing was carried out by a woodsman at no cost to EEBC. After 30 years of volunteer effort the value of the coppiced Hazel is now high enough to cover the woodsman's cost of coppicing, however it should be noted that the cost of deer fencing to ensure future coppice has to be covered by grant aid and installed by volunteers. Coppicing took place again during winter 2015/16.



Woodsman John Sinclair processing coppiced Hazel winter 2014/15

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 to restore two orchards in Horton Country Park LNR both formerly within the Long Grove Hospital Grounds. During 2016 work has continued with volunteer effort focused on clearing encroaching scrub from some of the old apple and pear trees in Lambert's Orchard.



Horton Country Park LNR Countryside team volunteer's clearing encroaching scrub from around old apple trees in Lambert's Orchard autumn 2016

Update:- Work to conserve and enhance rough grassland has been taking place since 2008 using a rotational approach which prevents the grassland disappearing under encroaching scrub. 2016 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.



Hogsmill LNR Countryside Team volunteers clearing rough grassland and encroaching scrub at Riverview Copse summer 2016

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.



Epsom Common LNR tractor with flail collector cutting and clearing Stew Pond Meadow late summer 2016



Horton Country Park LNR hay making in Little Westcotts summer 2014

Update:- During 2016 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 assisted again clearing both grass and encroaching scrub.



Juniper Hill, Epsom Downs chalk grassland management summer 2016

Update:- During 2016 further work to conserve the Small Blue Butterfly was carried out by volunteers from the Lower Mole Countryside Partnership with the creation of further scrapes on Epsom Downs.



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

Creating scrapes 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!**

Update:- As part of the creation and development of the new Priest Hill Nature Reserve by Surrey Wildlife Trust several rare in Surrey, wild plants (Broad leaved cudweed, Cut leaved germander,) were successfully planted on to the chalk scrapes that were former tennis courts in 2015. In 2016 rare poppies and night-flowering catchfly were planted and one of the chalk scrapes has been rotovated and seeded with rare chalk loving arable plant seed. The hope is that this population will be self-sustaining with annual or biennial rotovation, mimicking the traditional tillage used on arable crops. In addition conservation grazing is now established helping to conserve and enhance the chalk grassland and its rare flora and fauna.

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. In addition the Council published its new Development Management Policies Document including DM 4 Biodiversity and New Development (See below). During 2016 the new role and policy have continued 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

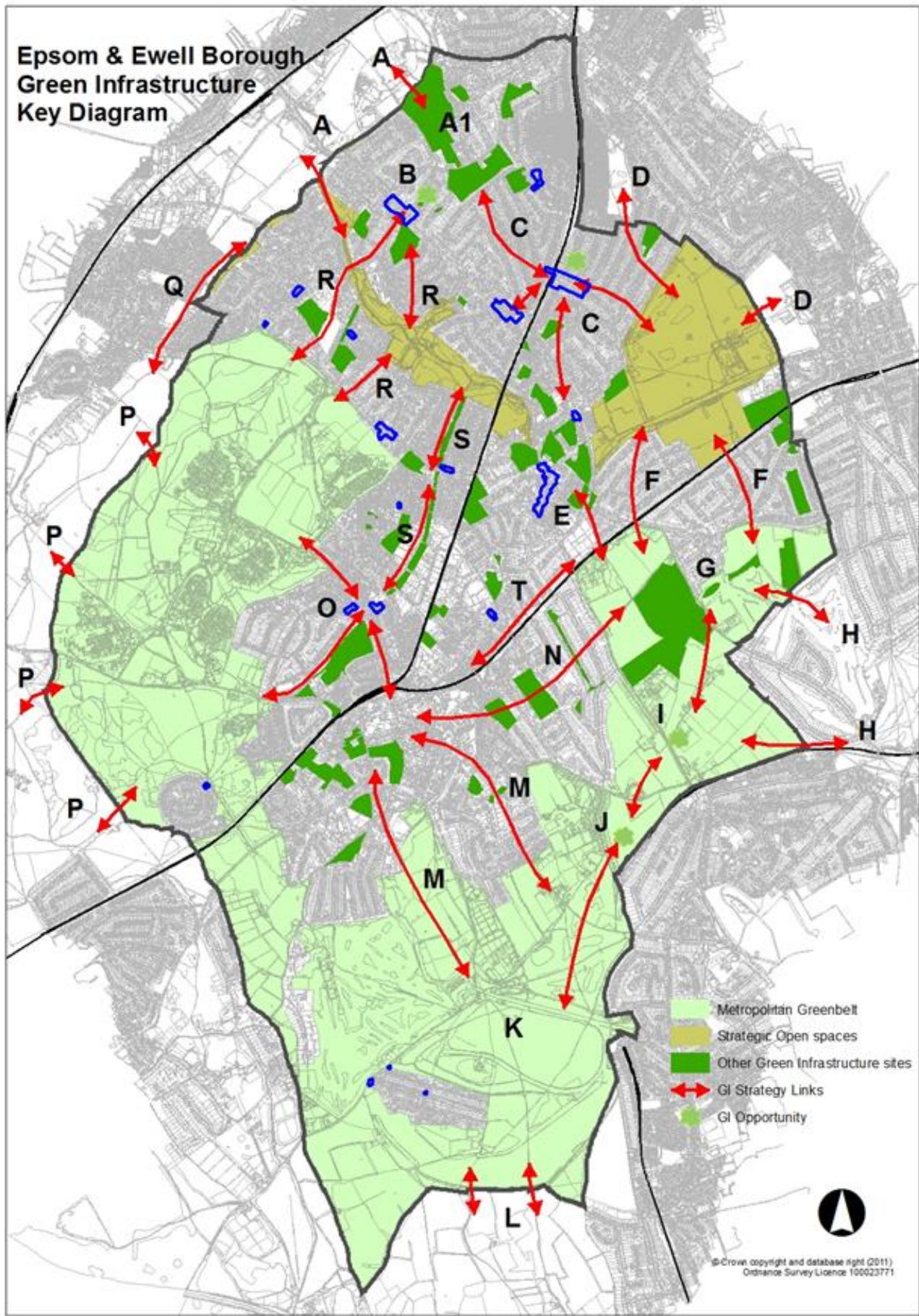
appropriate mitigation and compensatory measures are agreed to facilitate the survival of the identified species, keep disturbance to a minimum and provide adequate alternative habitats to ensure no net loss of biodiversity.

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 delayed during 2016 and it is hoped that progress can be made during 2017. 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

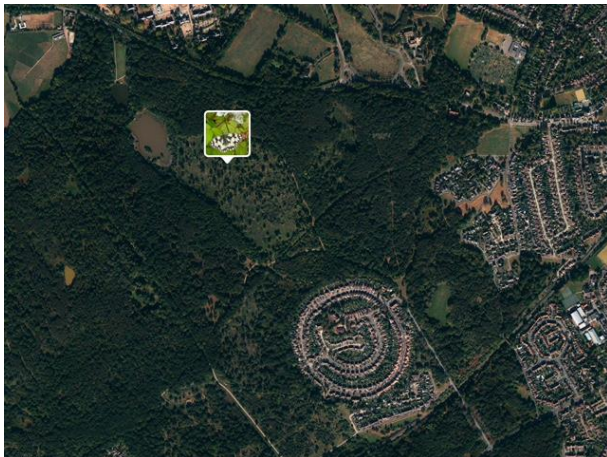


Update:- In 2016 the Borough still has the highest proportion of Sites of Nature Conservation Importance (SNCI) in active management in Surrey. The government’s ‘Single Data Set’ uses the measure of SNCI in active conservation management to monitor the current condition of the nation’s biodiversity. 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. During 2016 updated plans for Horton Country Park LNR, Hogsmill LNR and Epsom Downs Golf Course were prepared for approval during 2017. Management Plans ensure a consistent and planned approach to the management of biodiversity in the Boroughs open spaces. The current Epsom Common plan 2016-2126 is of particular note as it is the first management plan for an open space in Epsom & Ewell that has an agreed **100 year** approach, emphasising the need to take a very long term approach to managing biodiversity.



Epsom Common LNR. Guided by the site management plan a pasture woodland landscape has been created by the reintroduction of grazing, resulting in the appearance of Marbled White butterflies summer 2016

New: 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, flood risk management, local amenity, enhancing health and wellbeing)

The Trust has already held several stakeholder workshops to identify what stakeholders value and like about the Hogsmill that can be fed in to for example the partnerships response to the Environment Agencies Water Framework Directive River Basin Management Plan (RBMP)

During 2016 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. The Hogsmill Catchment Partnership also identified and prioritised a potential project to create a wetland at Chamber Mead in the Hogsmill Local Nature Reserve and it is hoped that funds can be secured during 2017 for what would be a major biodiversity enhancement that would build on the projects of recent years such as weir removal.



Hogsmill LNR former location of weir just after removal summer 2013



Hogsmill LNR former location of weir summer 2015

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

Update:- During 2016 there was a wide range of biodiversity related articles in the Borough Magazine 'Insight' which goes to all households in the Borough. These included a feature on 'Biodiversity and our community' which highlighted the work of nature conservation volunteers in the Borough as well as the importance of biodiversity (see photo below). Other articles that helped to promote biodiversity included the Green Flag Award, Countryside Guided Walks and the 20 mile "Hike & Bike" events using a signed route linking the Boroughs five main open spaces. The Council also published its Corporate Plan with a key priority being the quality and maintenance of its open spaces and protecting the green belt. All helping to raise awareness of the Boroughs natural environment and the opportunities to get actively involved.

Biodiversity and our community

The number of species of plants, animals and microorganisms and the enormous diversity of genes in these species are all part of our biologically diverse planet. This variety of life on Earth is commonly referred to as 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 last century and today over 40% of priority habitats and 30% of priority species are declining nationally.

Biodiversity is also about people and how we use and share the environment with its other living inhabitants. It is very much about the quality of our lives, sustainability of development, and local distinctiveness; a healthy biodiversity is a reflection of a healthy and sustainable community.

Local authorities have a key role to play in the conservation of biodiversity and this is recognised and formalised within the law.

The Epsom & Ewell Local Biodiversity Action Plan aims to promote the economic and health benefits of biodiversity in Epsom & Ewell. The plan contains seven long-term objectives, comprising 23 targets with 45 actions.

Each year we report on our performance against the plan and publish this online. The 2015/16 report is now available at www.epsom-ewell.gov.uk/EEBC/Environment/Biodiversity.htm

Volunteers working on the Hogsmill River banks

Volunteers play an ever increasing and important role in safeguarding the Borough's Biodiversity. In the last year successful projects highlighted in the 2015/16 report include:

- De-silting Horton Country Park Lambert's Pond by the Lower Mole Countryside Partnership volunteers
- Monitoring of water quality, moths, great crested newts and dormice
- Path clearance with the Woodland Trust in Langley Vale
- Hedge laying in Ruxley Lane with the Lower Mole Partnership
- Clearing the Hogsmill River's overgrown banks.

Key Priority:
Keeping our borough clean and green (see page 11)

Northey Fields - Site of Nature Conservation Importance

Feature **insight** 17

Article published in the Boroughs Insight magazine summer 2016

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. The 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 and 2016 a pond dip for a local Beaver Group discovered an astonishing recovery with the return and much greater abundance of aquatic life. The notice is still in place after a two 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 2016



Horton Country Park LNR Field Pond new gate and fence

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



Countryside Team Volunteers taking a well-earned rest from helping the Woodland Trust at Langley Bottom Farm autumn 2016



Annual Epsom & Ashted Common Joint Task BBQ January 2016



Horton Country Park LNR Countryside Officer Sarah Clift investigating mini beasts with local children summer 2016



Horton Country Park LNR Cyclists taking part in the Round the Borough Bike event May 2016

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 2016, 83 volunteer days of biological monitoring was provided valued at approx. £4,500.

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 summer 2016 a moth survey was carried out on Horton Country Park LNR which revealed an abundance of moth species present including two nationally scarce species the Dotted Fan Foot (*macrochilo cribrumalis*) and (*Elegia Similella*. Some spectacular moths from 2016 are pictured below. Further surveys are planned for 2017.



Epsom Common LNR, Buff Arches moth (*Habrosyne pyritoides*) summer 2016



Epsom Common LNR, Blotched Emerald moth (*Comibaena bajularia*) summer 2016



Epsom Common LNR, Peach Blossom moth (*Thyatira batis*) summer 2016



Epsom Common LNR, Rosy Footman Moth (*Mitochrista miniata*) summer 2016

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 2016. 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 our three Local Nature Reserves. 2016 has turned out to be a below average year with a cool and very wet start to summer following by a warm dry end. Butterfly



Epsom Common LNR Marbled White butterfly in Great Pasture summer 2016

numbers were significantly down compared to 2015. For example, in 2015 recorders had 940 sightings of 24 species, whilst in 2016 there were only 473 sightings of 25 species. On a more positive note Marbled Whites were recorded again in Horton Country Park LNR and also Epsom Common LNR. A Butterfly Conservation course which focused on the White Letter Hairstreak was held during summer 2016 for staff and volunteers and this resulted in a volunteer discovering a large disease free English Elm on the Hogsmill LNR that had White Letter Hairstreak butterflies flying in the canopy (see photo below). The magnificent Purple Emperor was spotted again in 2016 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

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. 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 identified 53 species during 2015 and the total has increased to 58 during 2016.

Update:- Monitoring for Dormice described previously has continued during 2016 with results proving negative with no Dormice found in any

boxes or tubes on Epsom Common or Horton Country Park. However signs of activity were found in a box on Epsom Common LNR. It is hoped that with a relatively small number of boxes and tubes in place that future years will continue to record their presence. The discovery of Dormice is informing the future management of woodland and means further survey work is required to map the distribution of Dormice across our nature reserves.



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 with Blakes Pond on Epsom Common LNR once again revealing a healthy population.



Countryside Officer Pete Howarth and
volunteer recorder Judith McNickle
retrieving a bottle trap contain several
Great Crested Newts spring 2016



Photo taken at Blakes Pond on Epsom
common LNR shows the difference in size
between the Smooth Newt and the Great
Crested Newt spring 2016

In addition during 2016 Pete has received and input bat records from the Surrey Bat Group, planning applications and local nature reserves surveys using the EEBC Recorder database. The work 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.



Countryside Team Volunteers clearing overgrown vegetation from the Farmstead School bat roost in Horton Country Park LNR summer 2015

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 2016 as part of the Hogsmill Partnership coordinated by the Hogsmill Catchment Partnership coordinated 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

Also 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.

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.

ZSL
LET'S WORK
FOR WILDLIFE



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



The extensive annual programme of cutting and clearing rough grassland is all paid for using externally sourced funds. Burnham's Meadow Horton Country Park LNR late summer 2016

Update:- In 2013 and 2015 the Lower Mole Partnership volunteers successfully de-silted Lambert's Pond in Horton Country Park Local Nature Reserve, revealing a long lost arm. During 2016 nature has rapidly begun to recolonise the pond and surveys will be carried out in 2017.



Horton Country Park LNR Lambert's Pond the long lost arm of the pond de-silted by the Lower Mole Countryside Partnership volunteers autumn 2015 and autumn 2016

Update:- During 2016 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 2016. Volunteers from the EEBC Countryside Team carried out a task to provide material for a task carried out by SERT and Lower Mole Partnership volunteers in March 2016 that removed toe boarding and constructed artificial berms to help naturalise the river channel. EEBC Countryside Team volunteers continued with a programme of removing scrub along the banks of the river to allow more light to reach the river channel. The 2015 task has already allowed aquatic plant life to create a natural berm that has scoured and naturalised a short section of 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 continues to naturalise and has been a great success. Further significant improvements are being discussed/planned via the Hogsmill Catchment Partnership.



Volunteers from the South East Rivers Trust using tree branches to help restore the Hogsmill River March 2016



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!



Hogsmill LNR Countryside Team volunteers continuing with managing bank side vegetation autumn 2016



Confluence of Green Lanes Stream tributary with the Hogsmill River autumn 2016

Update:- The Lower Mole Partnership has continued during 2016 to manage the SSSI using funds provided by Surrey County Council. In addition the Lower Mole Partnership received funds from the developers of the Lintons Lane housing development for the maintenance of the recently created pond and buffer zone inside the allotment site and adjacent to the SSSI. The buffer zone is considered to be working and reducing the issues on the allotment, consequently future use of the allotment is being considered with the possibility that the allotment could be brought back in to use whilst at the same time providing much needed terrestrial habitat for Great Crested Newts. During 2017 it is

hoped that funds can be secured to carry out a survey of Great Crested Newt numbers that would inform plans for the allotment and also assist in liaison with Natural England and the possible need for a licence regarding the plans for the allotment.



Lower Mole Countryside Management Project volunteers planting a hedge at Stones Road Allotment in 2012 and work to construct the new pond in 2013.

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 recently 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 spring 2014

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.

The Surrey Nature Partnership to which EEBC is affiliated through the Surrey Nature Partnership Biodiversity Working Group is currently championing two key projects in its effort to help to achieve its vision of a healthy, green Surrey with a prospering economy.

Valuing Surrey:- This project focuses 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. We hope the project will also inform ways of working and policy in other Local Enterprise Partnerships and Local Nature Partnerships.”

Biodiversity Offsetting:- The Surrey Nature Partnership has a statutory role in strategic planning matters which means it has an overview of local plans in Surrey. This enables the SNP to have a say in where development takes place.

“In cases where development is unavoidable, biodiversity offsetting is a tool that may be used by Local Authorities to compensate for biodiversity loss. This is where conservation activities – which will deliver a clear and measurable benefit to biodiversity – take place in compensation for damage caused by developments. This project will explore the possibility of Local Authorities using biodiversity offsetting in Surrey.”

Ecosystem Services are very relevant to the development of the Epsom & Ewell Green Infrastructure Policy and the implementation of the ‘Community Infrastructure Levy’ that has replaced Section 106 funding for new development.

Conclusion:

2016 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 2016 in all weathers!**



Epsom Common LNR Countryside Team volunteer Sue Martin enjoying the summer 2016 weather!

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