

A Greenprint for Chesterfield



Taking Action for Biodiversity



A Greenprint for Chesterfield

Published Chesterfield Borough Council 2010



Foreword

This edition of the Greenprint for Chesterfield will cover from 2010 to 2020 and is written in conjunction with our partners the Derbyshire Wildlife trust and Derbyshire County Council.

It is a Biodiversity Action Plan for the borough of Chesterfield. Biodiversity (the biological diversity of plants and animals that exists though out the world) is under threat and has declined significantly due to a variety of man made factors, for example intensive agriculture, climate change, development and neglect, and the borough of Chesterfield is no exception.

Everybody has a role to play in the conservation of biodiversity and a quick glance at the following pages explains where this document fits into the international picture. One way that you can help is to become a Wildlife Gardener. Bringing wildlife into your garden does not mean that it has to be ecological wilderness - by making a few small modifications and additions to your existing garden, you can give the local wildlife of Chesterfield a helping hand. Here are a few suggestions:

- Become an organic gardener - make your own compost from garden and vegetable kitchen waste. Use compost instead of artificial fertilisers. Instead of using pesticides encourage natural predators into your garden like hedgehogs, slow worms and thrushes.
- Cover fences with climbing plants such as ivy, clematis and honeysuckle – this will provide a place for birds and insects to hide and forage for food.
- Plant some native shrubs - for example, hawthorn, dog rose, guelder rose and cotoneaster. These provide homes and food for all sorts of wildlife.
- Leave out food and water for birds – nuts, seeds, fat and kitchen scraps provide healthy meals for a variety of birds.
- Create a log pile (of logs, branches and twigs), or a stone pile as shelter for insects.
- Encourage butterflies into your garden by planting buddleia, ice-plant and lavender.
- Keep your part of your lawn 5–10 cm high; this provides a valuable feeding area for thrushes, starlings and pied wagtails, and a home for frogs and toads.

This document is about action and in the following pages you will find a number of challenging targets including increasing the area of woodland and wet and wildflower grassland in the Borough.

I am delighted to offer my thanks for the hard work that has gone into producing this Greenprint, which is for the benefit of the whole community now, and in the future.



A handwritten signature in blue ink, appearing to read 'Ian', with a long, sweeping flourish extending to the right.

Cllr Ian Openshaw
Lead Member - Sustainability and Environmental Services

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Priority Habitats in Chesterfield

Flagship Species in Chesterfield

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Taking Action for Biodiversity in Chesterfield

Working Together in Chesterfield

Appendix

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Introduction

What is biodiversity and why is it important?

Biodiversity is the amazing variety of plants and animals that exist throughout the world. It is not just about rare or threatened species, but encompasses every one, from the commonplace to the critically endangered. Biodiversity is important aesthetically and spiritually, culturally and commercially. Its conservation is a key test of sustainability - a healthy and diverse environment is essential to future generations.

A rich wildlife heritage greatly contributes to the quality of life of the Borough's inhabitants, with a healthy environment being fundamental to the wellbeing of the population. Biodiversity enriches our daily lives; butterflies in our gardens, or the sound of birds from our offices provide us with a link with nature. A good network of green spaces can encourage people to take exercise, and contact with nature has been shown to contribute to mental wellbeing. Attractive, wildlife-rich areas can bring economic benefits through tourism, investment and employment opportunities. Wildlife habitats also have wider economic implications for example wetlands can provide wastewater treatment and flood defence. Biodiversity Action Plans give the public a chance to become involved with nature on a local level.

Derbyshire's biodiversity is an essential part of its character. From the moorlands of the Dark Peak to the wetlands of the Trent Valley, a unique range of habitats characterises the County. These support a great diversity of species, ranging from the common to the globally rare. However human activities are changing and destroying the natural environment on an increasing scale. The East Midlands is 'the Region with the poorest biodiversity in the country' (England's East Midlands wildlife: the future you can help!, 2002) and Derbyshire is no exception. Our biodiversity has significantly declined in recent decades, and continues to do so at an alarming rate. Key wildlife habitats have been lost through a combination of factors including intensive agriculture, development and neglect. Many of the plants and animals which depended on these habitats have also disappeared, and many are known to be rare, declining or under threat on either a national or local level.

Urgent action is needed to stop and reverse this decline.



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What is a Biodiversity Action Plan?

Biodiversity Action Plans (BAPs) came into existence as a result of the British Government's response to the 1992 Rio 'Earth Summit', where over 170 countries signed the International Convention on Biodiversity. The UK's first step was the publication of 'Biodiversity: The UK Action Plan', which was produced in 1994. This aimed to:

- identify national priorities for protecting and restoring habitats and species;
- identify targets for action to achieve this;
- raise public awareness of biodiversity and encourage action;
- promote Local Biodiversity Action Plans as a method of delivering the national plan.

The promotion of Local BAPs led to a further development: the publication of the 'Mid-Derbyshire Biodiversity Action Plan' in 1997. This later became the Lowland Derbyshire Local Biodiversity Action Plan (2001).

The Lowland Derbyshire LBAP is a strategy for the conservation of biodiversity in Derbyshire outside the Peak District.

- It identifies priority species and habitats; those which are locally, nationally or globally threatened and in need of action.
- It transforms national targets into effective action at a county level and sets out a plan of action to achieve them, identifying the lead agencies responsible.
- It aims to raise awareness about conserving biodiversity and develop effective local partnerships, so that the process can be maintained in the long term and effective monitoring and recording of achievements can be made.

If the targets in the Lowland Derbyshire LBAP are to be achieved, co-ordinated action is needed across the county. However much depends on the actions of individuals, organisations and communities at a local level, and it is essential that the targets and actions in the Lowland Derbyshire LBAP are translated effectively into local action. For this reason, several local authorities, including Chesterfield Borough Council, have now worked with Derbyshire Wildlife Trust to produce Greenprints for biodiversity. The relationship between the national BAP, county LBAP and Greenprints is set out in Diagram 1.

The Greenprint sits within the framework of the newly emerging Lowland Derbyshire LBAP. The LBAP is taking an area based approach, each with their own area action plans and targets. The areas are based upon the

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Regional Landscape Character units and about 95% of Chesterfield Borough, falls within the Rother and Doe Valley area.

An introduction to the NERC Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

This duty extends to all public bodies the biodiversity duty of section 74 of the Countryside and Rights of Way Act 2000 (CROW), which placed a duty on Government and Ministers.

The aim of the biodiversity duty is to raise the profile of biodiversity in England and Wales, so that the conservation of biodiversity becomes properly embedded in all relevant policies and decisions made by public authorities.

Who does it apply to?

The duty applies to over 900 public authorities, including local authorities, fire, police, health bodies, museums and transport authorities.

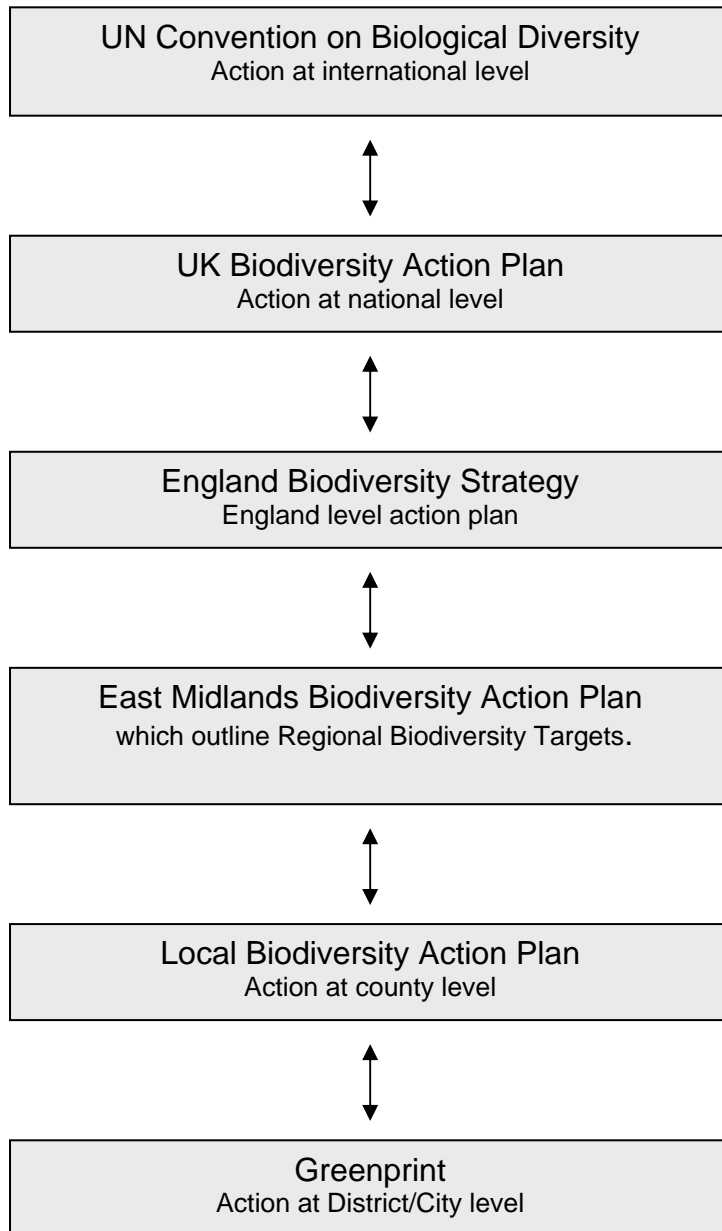
The Duty applies to a wide range of organisations including:

- Local authorities – unitary, county, district, metropolitan, and community, parish and town councils,
- Central Government departments,
- Departmental executive agencies,
- Government offices,
- Non-Ministerial government departments,
- Non-departmental public bodies,
- NHS Trusts,
- Regional assemblies,
- Utilities – including United Utilities and other energy suppliers in the region,
- All other bodies carrying out functions of a public character under a statutory power. This includes: police authorities; Fire Service; Prison Service; museums; schools and higher educational institutions.



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Diag.1. Diagram to show the relationship of the Greenprint for the Borough of Chesterfield to county, national and international level biodiversity action.



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Biodiversity in the Borough of Chesterfield

National Character Areas

'The Character of England: Landscape, Wildlife and Cultural Features' was produced in 2005 by Natural England with English Heritage. This map subdivides England into 159 National Character Areas (NCAs), providing a picture of the differences in landscape character at the national scale. Two NCAs cover the Borough of Chesterfield: 'Nottinghamshire, Derbyshire and Yorkshire Coalfield' and 'Derbyshire Peak Fringe and Lower Derwent'. The actions identified for priority habitats and species in the following pages highlight the distinctive nature of each area.

National Character Area Descriptions

Nottinghamshire, Derbyshire and Yorkshire Coalfield

Extending from Nottingham as far north as Leeds, this NCA takes in many urban and industrial areas intermingled with the semi-natural habitats of the surrounding countryside. Surviving areas of ancient woodland and valley wetlands and the features of farmland are mixed with habitats which have been produced as a byproduct of the extractive industries which have historically dominated the area.

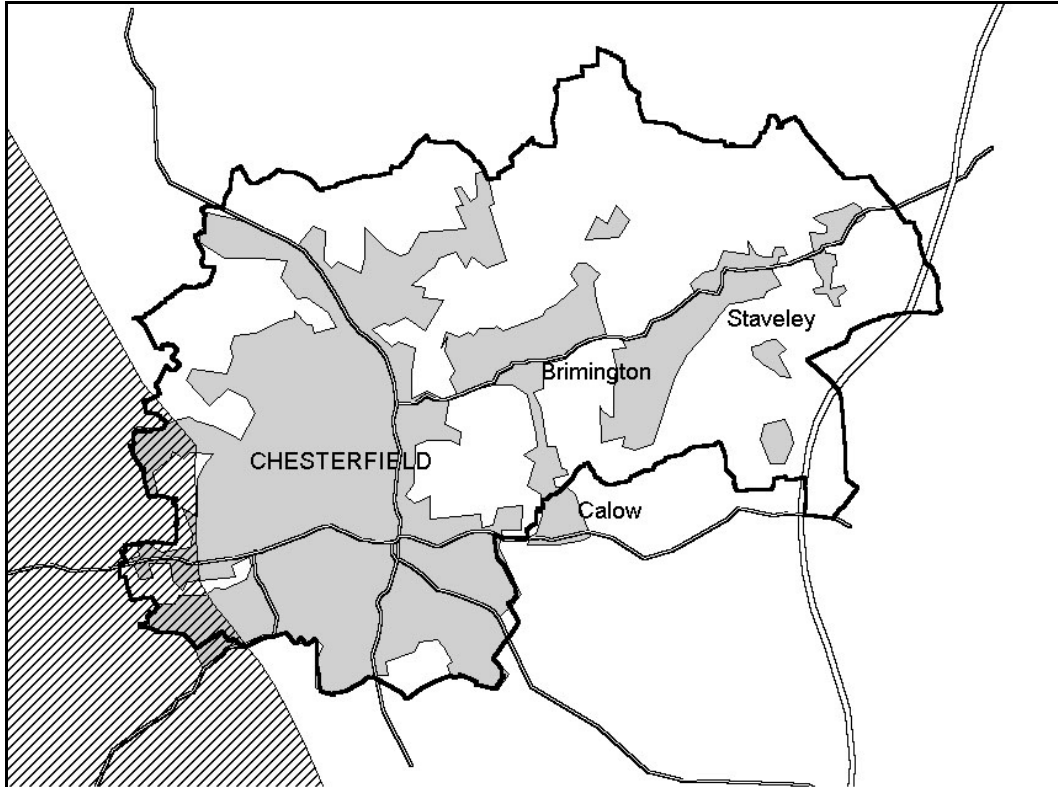
Derbyshire Peak Fringe and Lower Derwent

A landscape of gritstone ridges, separated by impressive steep-sided river valleys forms the outlying fingers of the Pennines in an area of transition between predominantly rural upland to the west and industrial urban lowlands to the east. Rivers have a dominant influence, their lower reaches holding mires, swamps and the open water of reservoirs. Woodland clings to some steeper-sided valleys. Acid grassland and fragments of heath on the higher ridges give way to marshy pastures, hay meadows and scattered arable fields on the lower ground.

Further information can be obtained from www.naturalengland.org.uk


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Map of the Borough of Chesterfield



OS licence number LAO77534

Key:

The Borough is part of the Nottinghamshire, Derbyshire and Yorkshire Coalfield NCA with the exception of the  area shown below.

- District Boundary
-  Derbyshire Peak Fringe and Lower Derwent
-  Towns and Urban area

2010-2020

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Green Infrastructure

Biodiversity cannot survive on small isolated sites. Plants and animals need to be able to move and spread in order to maintain viable populations and respond to changes in their environment. This is particularly important at a time when our climate is changing and species need to move as their current habitats become unsuitable. For this reason it is essential (particularly in urban areas) that we develop linked networks of habitats which are positively managed for wildlife.

Networks of accessible natural greenspace are also essential for the quality of life of the human population. Greenspace and trees in towns and cities help regulate air quality and temperature and reduce flood risk. Regular access to nature has been shown to improve both mental and physical health. Attractive natural greenspace also has considerable economic value by increasing house prices, supporting tourism and attracting inward investment.

For this reason, the concept of 'Green Infrastructure' has become central to Government planning policy. It is defined as *"a network of multifunctional green space, both new and existing, both rural and urban, which supports the natural and ecological processes and is integral to the health and quality of life in sustainable communities"*.

Chesterfield's Green Infrastructure Study was published in 2009 as part of the evidence base for the Local Development Framework. It maps the network across the Borough, including elements such as river and canal corridors, Local Wildlife Sites, parks and greenways as well as open countryside. Great emphasis is placed on the need to maintain and enhance biodiversity (and hence deliver the objectives of the Greenprint) through green infrastructure delivery.

Opportunities for increasing green infrastructure exist through major new developments such as large housing proposals and the restoration of the Chesterfield Canal. The study also sets out a number of other objectives and mechanisms for enhancing and improving it. It puts forward policies to deliver green infrastructure through the Local Development Framework (LDF)

The Chesterfield Parks and Open Spaces Strategy (2002) has a target that 'Where possible, all homes in the borough to be within 300 metres of accessible natural greenspace.' Improving the biodiversity of existing greenspace in the Borough is a key objective in the strategy.

It is essential that the delivery of the Greenprint, Parks and Open Spaces Strategy and LDF Green Infrastructure policies are coordinated and integrated. This will ensure that the development of green infrastructure in

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the Borough contributes as fully as possible to enhancing biodiversity, and that the Borough's residents benefit from a healthy natural environment.

Designated Sites

Some sites in Derbyshire are legally protected as being of national importance for their biodiversity. These include Sites of Special Scientific Interest (SSSI). However this series of sites only contains examples of each habitat type, and does not include every site of biodiversity value. There are no nationally designated sites in Chesterfield.

Local Nature Reserves (LNRs) are designated by local authorities in partnership with Natural England. They are sites which are important to the local community, and which they are involved in managing. There are two LNRs in Chesterfield, Norbriggs Flash and Brearley Park Meadows.

Outside SSSIs, the best sites for biodiversity in Derbyshire (excluding the National Park) are designated as Local Wildlife Sites (LWS). These non-statutory sites are selected by an independent panel on behalf of the Derbyshire LWS Partnership. Derbyshire Wildlife Trust surveys sites and provides information and advice to their owners under a Service Level Agreement with Chesterfield Borough Council. In 2010 there are 29 LWS in Chesterfield. 10 are owned by Chesterfield Borough Council, 2 (and part of a third) by Derbyshire County Council, and the rest are in private ownership.

Local Wildlife Sites have a degree of protection through the Local Development Framework, which has policies protecting them from development. However they have no legal protection from inappropriate management, neglect or other threats to their biodiversity.

In 2010, DWT published an assessment of the status and condition of Local Wildlife Sites. This revealed that only 29% of LWS in Chesterfield are in favourable condition, compared with a county-wide figure of 31%. A further 24% of LWS in Chesterfield are in unfavourable condition but are either improving or maintained, while 20% are in decline. 27% of sites have not yet been assessed, often because access is difficult.

Most habitats need active management to maintain their value for wildlife. Local Authorities have a duty to monitor the management of LWS and report to Government annually (National Indicator 197). In 2010 this monitoring showed that 41% of Chesterfield LWS had received positive management in the last 5 years. Most of these sites are owned by Chesterfield Borough Council or DCC.

These figures show that there is an urgent need to bring more LWS into positive management – particularly those in private ownership - if their biodiversity is to survive. Since LWS are the best sites in Chesterfield for



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wildlife, this is also a worrying indicator of the overall state of the Borough's biodiversity. Despite some considerable achievements since the Greenprint was first published in 2003, it is clear that there is much still to be done.

Priorities for Nature Conservation in Chesterfield

The landscape of The Borough of Chesterfield has been shaped by its past, both as an industrial centre and as a home to an increasing number of people. The geology of the area gave rise to one of its main industries, coal mining. With the demise of deep coal mining and related heavy industries, Chesterfield has been left with an extensive programme of reclamation and regeneration work that provides a unique opportunity to strategically protect and enhance the natural environment in the Borough. Sites such as Pools Brook Country Park and Holme Brook Valley Park are good examples of what can be achieved using the opportunities presented by site reclamation.

Chesterfield has a mixed landscape of derelict industrial and reclaimed open cast sites, urban areas and farmland, all of which include surviving areas of valuable wildlife habitat. Despite these varying demands on the landscape, the area retains open countryside with a wide variety of natural habitats. It is a priority that these habitats be linked and a network of green corridors established and maintained throughout the Borough and into surrounding areas, to allow species to maintain viable populations and to move in response to climate change.

Within the Borough of Chesterfield several habitats have been highlighted as being priorities in the UK and/or Lowland Derbyshire BAPs. To make the Greenprint simpler, in some cases two or more national priority habitats have been grouped into a single habitat type, to make nine in total. These are listed in Table 1 below.

There are a great many species of plants and animals found in the Borough of Chesterfield, which are priorities in the UK and/or Lowland Derbyshire BAPs due to their rarity and/or rate of decline. These species are listed in Appendix 2. It is envisaged that most of these species can be protected and their populations enhanced through the protection and management of priority habitats. However some species have such specific requirements that habitat action is not enough, and more targeted actions are needed. Some of these species are also valuable because they are popular with local people or particularly characteristic of the Chesterfield area. On this basis six species (or groups of species) have been selected as 'flagships' for the Borough of Chesterfield – examples of priority species which will be used to encourage local action.



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Table .1. Priority habitats, flagship species and their relationship.

The ticks indicate which priority habitats each priority species is most associated with.

Habitats /Species	Wildflower -rich grassland	Rivers and Streams	Standing waters – lakes, ponds and canals	Broad-leaved woodland	Hedgerow	Wet Grassland	Urban and Post-industrial habitats	Swamp, tall-herb fen and reedbed	Gardens and allotments
White-clawed crayfish		✓	✓						
Hedgehog	✓			✓	✓		✓		✓
Water vole		✓	✓			✓		✓	
Garden birds	✓			✓	✓		✓		✓
Amphibians	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bumble bees	✓				✓	✓	✓		✓

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Achievements from the Greenprint of 2003:

- White-clawed crayfish ark set up at Holmebrook Country Park.
- Hedgerow surveys in the Borough.
- Work to rejuvenate parts of the Chesterfield Canal and work to enhance habitat for water voles.
- Borough-wide surveys for skylarks, water voles and white-clawed crayfish.
- Public survey for bluebells.
- Working with allotment holders to create compost heaps for grass snakes.
- Biodiversity audit of Chesterfield Borough Council owned open space.
- Designation of Norbriggs Flash as a Local Nature Reserve.
- CBC land entered into 10 year HLS management agreement.
- Formation and support of a number of Friends of Groups associated with Country Parks in the Borough.
- Greenprint for Chesterfield now up and running on BARS.
- Park rangers trained in Crayfish recognition and conservation.
- Water vole habitat improvement works undertaken on Chesterfield Canal.

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Section 1 – Priority Habitats in Chesterfield

This section contains a brief description of each priority habitat, explains the issues affecting it and sets out the targets that need to be achieved. Targets reflect those in the UKBAP and Lowland Derbyshire LBAP¹.

In addition to specific targets for priority habitats, an overall target has been set for Local Wildlife Sites, which include the best examples of priority habitat types in the Borough (see Introduction). It is a high priority to increase the number of these sites which are in positive management, and hence, in the long term, the number in favourable condition, which is currently only 29%. This will contribute towards the targets for all priority habitats.

Target for Local Wildlife Sites

* Ensure that at least 60% of Local Wildlife Sites are in positive management by 2020.

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¹The targets in the Lowland Derbyshire Local Biodiversity Action Plan are subject to review.

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Habitats

Wildflower-rich Grassland

This habitat type includes dry grassland which falls within the national priority habitat 'Lowland Meadows'.

If grassland has not been treated (agriculturally 'improved') with fertiliser or herbicide, or seeded with amenity grasses, it may be rich in wild grasses and flowers. This type of grassland would once have appeared over most of the county, but due to modern farming methods is now increasingly rare, with only 10% of the area that was present in 1983 in Derbyshire (outside the National Park) remaining by 2001 (DWT, 2001). Grasslands on neutral soils, typical of the two National Character Areas, are most prevalent in Chesterfield, although small areas of acid grassland are also present.

The known wildflower-rich grassland sites in Chesterfield Borough are small and fragmented, and are scattered across the area, mostly in non-agricultural settings such as reclaimed open-cast sites, railway lines, roadside verges, canal banks, allotments, parks, cemeteries and derelict land. The 2004 Baseline Study estimated a total area of 74ha. The majority falls within Local Wildlife Sites. These areas are often small, isolated and vulnerable to development, neglect and disturbance.

Other important grassland sites include those at Brearley Wetlands Local Nature Reserve and Phipps Open Holes. Both are important for their habitats as well as for public access and it is essential that these needs are balanced. Phipps Open Holes is a particularly important site because of the presence of corn bunting, a nationally declining bird. A priority at this site is to arrest the spread of scrub and woodland to maintain open habitat for these birds.

Wildflower grassland needs to be managed by mowing or grazing after the plants have set seed in order to prevent scrub encroaching while encouraging wildflowers. It is important that remaining sites are managed sympathetically. These can then be used as seed sources for grassland restoration in other local areas.

Opportunities for the creation of wildflower grassland exist in many areas such as reclaimed industrial and opencast sites, farmland, private gardens and churchyards. This has been achieved at Pools Brook Country Park where wildflower-rich grassland has been created and remnant hay meadows retained. Public amenity land such as parks, allotments, edges of playing fields, roadside verges and even school grounds can all be considered for this type of habitat creation. There is the potential for Chesterfield Borough Council to explore managing their own farm and grazing tenancies for biodiversity. The

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93-hectare (230-acre) farm estate and 18 hectare (45-acre) grazing tenancies are a mix of habitats and offer a real opportunity to deliver biodiversity benefits and develop them as good practice examples.

Targets for Wildflower-rich Grassland

- * Increase the area of wildflower-rich grassland by 1ha by 2020
- * Ensure that there is no further loss or fragmentation of wildflower-rich grassland in the Borough.

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Habitats

Wet Grassland

This habitat type includes wet grassland which falls within the national priority habitat 'Lowland Meadows'.

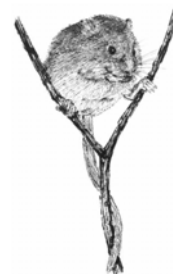
Wet grassland typically occupies sites where the water table is high or those that are subject to periodic flooding. It is home to a diverse range of plants, many of which are unique to this habitat, and provides suitable conditions for many invertebrates and birds. Wet grasslands are important for breeding birds such as lapwing and snipe, which hunt for insects in the soft soil to feed their young. Due to modern farming methods and land drainage, wet grasslands are a nationally scarce habitat, and a high priority for conservation.

Within Chesterfield wet grasslands are found along the banks of the Rivers Rother and Doe Lea and their tributaries and form a habitat corridor through the Borough. The 2004 Baseline Study estimated a total of 6ha, most of which is within Local Wildlife Sites.

Significant areas of wet grassland have been incorporated into some mineral extraction restoration schemes, for instance Pools Brook Country Park. This site is known to have pepper saxifrage, a Derbyshire Red Data Book species that is locally scarce. Brearley Wetland Local Nature Reserve, especially important as it links urban areas with the countryside, has an area of seasonally flooded grassland that is of value for birds.

The network of wetlands across Chesterfield, including tall herb fen, swamp and marsh, are important nationally for the habitats they provide along bird migration routes. British Coal undertook a wet grassland creation experiment on a site adjacent to the River Doe Lea at Markham. This proved highly successful, becoming one of the best sites in the valley for dragonflies and other invertebrates and could be used as a best practice example for similar work.

Wet grasslands are at risk from drainage for development or agriculture, which can isolate or destroy them. They may also become separated from their source of water through flood defence works. However, they can be important flood defences in their own right – storing water that would otherwise enter a watercourse. Recreational pressures, such as footpaths across an area, can also lead to a loss of species diversity on existing sites through disturbance.



Picture by Julian Jones

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Targets for Wet Grassland

- * Increase the area of wet grassland by 1ha by 2020
- * Ensure that there is no further loss or fragmentation of wet grassland in the Borough.

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Habitats

Rivers and Streams

This habitat type includes the national priority habitat 'Rivers'.

There are few lowland rivers and streams in England that could be described as natural. Most have been modified for flood defence, navigation or development, resulting in the loss of their natural banks, meanders and shallows. However, they are still one of our most important habitats for wildlife, especially when they adjoin wetland habitats such as wet meadows, reedbeds or woodland. Rivers and their wetlands are important for many species including water voles and white-clawed crayfish, both priority species in Chesterfield.



Rivers and streams act as corridors for the movement of wildlife throughout Chesterfield, linking it to surrounding countryside. Important watercourses include the River Rother, the Rivers Doe Lea and Hipper and Holme, Callow and Barlow Brooks. The River Rother was once described as the dirtiest river in Europe, but recent changes have led to a dramatic improvement in water quality. This will be a continuing concern and it is important that the rivers and streams of the Borough are monitored and any pollution controlled. The Rother remains a priority for action, with many stretches through the town centre having been culverted and straightened (canalised). However, the Rother is an important site in the county for both water voles and white-clawed crayfish, and this increases the importance of enhancing the habitat further to maintain and expand these populations. The rivers in the Borough are also important nationally for the corridor of wetlands they provide for migrating birds. Development and flood protection banks limit the width of the river corridor, but adjoining areas such as those at Pools Brook Country Park contribute much needed additional habitat for wildlife.

The wildlife of rivers and streams faces a number of threats including culverting, canalisation, building on riverbanks, pollution and invasion from non-native species. Giant hogweed, Japanese knotweed and Himalayan balsam are extremely invasive and can take over whole river systems and obliterate all other bankside vegetation. Introduced American signal crayfish and mink are also a major problem for the native white-clawed crayfish and the water vole, as described in later sections. The recreational use of the Borough's rivers and streams for fishing, canoeing and riverside walks increases the opportunity for people to enjoy the wildlife of the river. However it may also increase disturbance to habitats and species and so needs to be carefully managed.

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Targets for Rivers and Streams

- * Continue to work towards improving the water quality of rivers and streams in the Borough in accordance with the Humber River Basin Management Plan.
- * Seek opportunities to restore and enhance the structural characteristics of rivers and streams for the benefit of wildlife.

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Habitats

Standing Waters – Ponds, Lakes and Canals

This habitat type includes the national priority habitats 'Eutrophic Standing Waters' and 'Ponds'.

Standing waters, which include ponds, lakes and canals, support a very wide variety of species, many of which are entirely dependent on them for all or part of their life cycles. They can support a wide range of plant and animal communities including aquatic and marginal vegetation, wet grassland, trees and shrubs on their edges. These support species including frogs, newts, dragonflies, water beetles and plants such as common water starwort, yellow water lily and spiked water milfoil. Those ponds and lakes that have developed naturally are of the highest value for wildlife. However, sympathetically designed man-made ponds and lakes can be very valuable, particularly in urban areas. Clusters of ponds are generally more valuable than a single large one especially if they are of a range of types, from shallow overgrown ponds to deep ponds, all at different stages in their development. This variety of types and varying number of ponds is important for species such as great crested newts and water voles.



The ponds and lakes of the Borough of Chesterfield vary greatly in type. They include ornamental lakes such as those at Queens Park, fishing ponds such as Ringwood Lake, old industrial reservoirs, subsidence flashes and those created as part of reclaimed sites, for example those at Holmebrook Valley Park and Pools Brook Country Park. Smaller examples include farm, garden and school ponds. Standing waters also include the reinstated sections of the Chesterfield Canal, which when completed will provide a wildlife corridor through the Borough. The canal is important for water voles, as are the lakes at Pools Brook Country Park, whilst Brockwell Reservoir Local Wildlife Site provides ideal habitat for amphibians, and Blue Bank Pool Local Wildlife Site is important as a bird breeding area, including the elusive water pipit. The series of standing waters throughout Chesterfield are important for over-wintering and breeding wildfowl, and form part of an important national network of habitat along bird migration routes. Other wildlife, including grass snakes, bats and kingfishers also use these habitats as ideal hunting grounds. Within urban areas the feeding of wildfowl can be popular amongst locals. However, very high densities of ducks and geese can lead to water quality problems causing plants in and around the pond to die. Action may need to be taken to limit their impact accompanied with public awareness raising.

Standing waters are vulnerable to pollution due to their size and the low volume of water available to dilute pollutants. Eutrophication

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(nutrient enrichment with phosphates and nitrates) can lead to problems with algae blooms, whilst inlet water quality, pollution and rubbish can all affect the water quality of standing waters and therefore reduce their biodiversity. Poor management such as the removal of marginal vegetation or mowing right up to the water's edge can also lead to a loss of biodiversity. Many pond and lake species depend on other habitats as well, and it is important that they do not become isolated from these habitats. Establishing a 'buffer zone' around each pond, where no fertiliser or herbicide is applied and where mowing is restricted, will mitigate many of these problems. It will also act to filter any inputs outside this zone and provide a safe refuge for species using ponds. Increased urbanisation can also lead to the direct loss of ponds through infilling.

While ornamental fishponds and fishing lakes can have value for wildlife, stocking previously fish-free ponds with fish can have a severe effect on many wild plant and animal species. The growth in popularity of garden ponds is adding to the available network of wetlands in the Borough and providing valuable refuges for wetland species such as amphibians and grass snakes. However, this trend has also led to the introduction of non-native species such as New Zealand pigmyweed (*Crassula helmsii*), water fern (*Azolla filiculoides*) and parrot's-feather (*Myriophyllum aquaticum*), which are highly invasive. These plants are not confined to ponds and are spreading throughout wetland and river systems, posing a considerable threat to native wetland species. It is important to educate the general public about the threats these non-native species pose to our wetland systems.

Targets for Standing Waters

- * Establish baseline data on the number of ponds of biodiversity value by 2013.
- * Ensure that there is no further net loss or isolation of standing waters.
- * Create 15 new ponds by 2020.
- * Create ARK site at Pools Brook Country Park.

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Habitats

Swamp, Tall-herb Fen and Reedbeds

This habitat type includes the national priority habitat 'Reedbeds'.

Swamp, tall-herb fen and reedbeds include a wide range of vegetation types associated with water, occurring at the margins of reservoirs, ponds, rivers and streams or associated with waterlogged/flushed ground. They are characterised by large bulky plant species including sedges, bulrushes and reeds. They are widespread but scattered and fragmented across the UK. In the past they would have been more common than they are today

Swamps are wet for at least part of the year and are often dominated by sedges, reeds or grasses. Tall-herb fens are permanently waterlogged and generally groundwater fed. These habitats can support a diverse range of species. Reedbeds are species poor fens mainly dominated by one plant such as common reed.

Within the Borough swamps, tall-herb fen and reedbeds are located along the river valleys of the Rivers Doe Lea and Rother. There are also flushed sites associated with mining subsidence, which form marshy areas. The 2004 Baseline Study estimated a total of 13ha. Many of these sites are not floristically rich due to acidity, historical water pollution and destruction. This concentration of wetlands, and wet grassland along the Rivers Doe Lea and Rother form part of an important national corridor of wetlands for migrating birds.

Reedbed is mainly associated with impeded drainage and the subsidence flashes of the Nottinghamshire, Derbyshire and Yorkshire Coalfield National Character Area. There are several good examples of this type of habitat in the Borough. A well known site is Norbriggs Flash, a Local Wildlife Site which supports floodplain grassland, wet woodland and bur-reed swamp, formed on an abandoned meander of the River Doe Lea and a subsidence flash. This site is known for its great crested newts, grass snakes, a number of rare invertebrates and its ornithological interest. Bluebank Pools, another Local Wildlife Site, also contains a range of habitats including reed sweet grass and reedmace with other associated species including great hairy willowherb, meadowsweet and bittersweet.

Again this site is important for great crested newts, uncommon invertebrates and as an ornithological site. Brearley Wetland Local Nature Reserve includes a brown sedge bed, a Red Data Book plant in Derbyshire. It is this



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variety of wetlands that provides a significant interest for wildlife in the Borough.

These habitats are vulnerable to drainage, nutrient enrichment, pollution and unsympathetic management. Many have declined in extent and quality within the Borough over the last 25 years. As a consequence many are now small and isolated. However, suitable conditions for the development of these types of habitat are often inadvertently created through mining and quarrying. Subsidence of land due to mining creates 'flashes' (small wetland areas) which can develop into swamps and reedbeds. Elsewhere within the Borough there are often opportunities for the creation of suitable conditions for these habitats as part of agricultural schemes, built development and quarry restoration works.

Targets for Swamp, tall-herb fen and reedbeds

- * Ensure that there is no further loss or fragmentation of swamp, tall herb fen and reedbeds.
- * Increase the area of swamp, tall-herb fen and reedbeds by at least 1 hectare by 2020.

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Habitats

Broad-leaved Woodland

This habitat type includes the national priority habitat 'Lowland Mixed Deciduous Woodland'.

All broad-leaved woodland is valuable for wildlife, but some types are particularly important. Ancient woodland is that which has existed since at least 1600. It is probably our most important wildlife habitat, harbouring a unique and diverse range of plants and animals, some of which are found only in woodland of this age. Secondary semi-natural woodland is that which has regenerated naturally (i.e. has not been planted) since 1600, and is old enough to have developed a diverse flora and fauna. These are the most important types of woodland for wildlife, but planted woodlands can also be valuable habitats, particularly if they are made up of species that naturally occur in the local area. There are approximately 300 hectares of woodland in Chesterfield. Less than 15% of this area is considered Ancient woodland and a further 15% are plantations on Ancient woodland sites. Most of these plantations are broadleaved woodland (60-70% Forestry Commission figures). Chesterfield Borough Council has planted around 32ha of new woodland in the last 15 years.



Woodland plants are diverse and include bluebell, early purple orchid, common gromwell, columbine, dog violet and cowslip. These in turn support many invertebrates, including speckled wood and white letter hairstreak butterflies. Birds such as woodpeckers, spotted flycatcher, bullfinch and nuthatch, and mammals such as stoat, badger, fox and shrew all live in woodland. Dead wood is vital for many invertebrates, fungi, ferns and lichens, but is often removed in the name of tidiness and for safety reasons.

Most semi-natural woodland within the Borough is secondary woodland that has grown up on otherwise abandoned mineral extraction sites, or mature plantation sites. These sites are important for the wildlife they support and a priority for continued enhancement. Many are currently Local Wildlife Sites and are therefore of significant interest already. These include Ashgate Plantation, Brierley and Rough Piece Woodlands and Kings Wood Disused Railway. Westwood Local Wildlife Site is the only significant area of Ancient Woodland in the Borough. Woodland trees include oak, ash, elm, rowan and wild service tree. It is a priority to control the spread of non-native plants that can out compete these native species, particularly sycamore and *rhododendron ponticum*.

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The Borough's previous industrial heritage and other built development (e.g. housing) coupled with neglect has resulted in a landscape depleted in individual trees, copses and woodlands. Remaining woodlands form an important visual, recreational and wildlife resource. It is a priority in the area to establish more woodlands and small copses and utilise any opportunity presented by reclamation and restoration of industrial land. However, this should be pursued sensitively and not at the expense of other important habitats. It is also important to address the need for management of any remaining woodland to ensure that it is managed favourably, balancing the needs of wildlife and recreation, and to link woodlands with new planting to allow animals and plants to spread between them.

Individual trees in parkland or along roads and streets are also an important resource, providing some of the benefits of woodland and small copses in an urban setting. It is important that these trees are recognised for their conservation and amenity value and protected from mismanagement and loss. If loss does occur there should be a programme of replacement.

Targets for Broad-leaved Woodland

- * Ensure no further loss or fragmentation of broad-leaved woodland.
- * Increase the area of broad-leaved woodland in the Borough by 1 ha by 2020, particularly where this will link or extend existing areas.

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Habitats

Hedgerows

This habitat type includes the national priority habitat 'Hedgerows'.

Hedgerows are not only important habitats in their own right, but they also play a vital role as wildlife corridors. Mammals such as stoats, weasels, shrews, voles and bats all use hedgerows both as a home and a highway. An ancient hedgerow can also provide an indication of historical field patterns and parish boundaries. Large ancient hedgerows made up of native trees and shrubs are the most beneficial to wildlife, although all hedgerows have some value. Ancient hedgerows are often remnants of ancient woodland from over one thousand years ago when modern field patterns were being established. Plant diversity is dependent on origin, past management and continued presence in the landscape, generally the older the hedge the better the diversity. However, more recent hedges can be species-rich depending on their origin, and may therefore be important for wildlife.

Hedgerow trees such as ash, oak and elm grow alongside shrubs such as dogwood, hazel, holly, goat willow and hawthorn.

Black bryony, white bryony and dog rose contribute to a year-round display of colour with blossom in the summer and berries in the winter. Hedgerows provide a valuable habitat for many insects such as the brimstone butterfly whose larvae feed on alder buckthorn, and meadow brown, wall, gatekeeper, small skipper and holly blue butterflies to name but a few. Hedgerows are very important for nesting birds and support species such as linnet, tree sparrow, song thrush, bullfinch, yellowhammer, garden warbler, blackcap and whitethroat, all of which are declining.



In 2009 a survey of hedgerows in Chesterfield was completed. The results of the survey of 322 hedgerows covering 33km were:

- * 98% of hedgerows were made up of more than 80% native species, and would therefore fall within the UKBAP priority habitat.
- * 47% were found to be species-rich (containing 5 or more native woody species per 30m section). This is above the national average of 42%.
- * Hedgerow trees are an important feature, being present in 64% of hedgerows.
- * The main land uses adjacent to hedgerows were grassland, arable and roads or routes.

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- * Only 32% of hedgerows showed signs of management within the last 2 years, and 61% within the last 10 years.
- * 53% of hedgerows were in a favourable condition for biodiversity.
- * The main reasons for unfavourable condition appear to be a lack of integrity as well as nutrient enrichment of the hedgerow base.
- * Connectivity of the hedgerow resource was considered to be low, with the average number of connections per hedgerow being 1.86.

Ancient species-rich hedgerows in the Borough include those at Holmebrook by Brockwell and in the River Doe Lea Valley associated with older roads, lanes, footpaths and bridleways. Many of these, however, are neglected and in need of management. Other hedgerows in the Borough are under pressure from agriculture, inappropriate management and the planting of non-native plants, particularly in parks and gardens. They can be neglected and gappy with reduced value for wildlife. Hedgerow trees like elm have also disappeared through disease and subsequent removal. The management of a hedge is important; traditionally this was by laying on a rotation to maintain the structure. Modern methods such as mechanical flailing eventually lead to a gappy hedge. Modern hedge trimming can mean that hedges are cut at the wrong time of year, which will result in the loss of flowers and berries that are vital food sources for many species.

Possibilities exist for the extension and planting of new hedgerows on areas of farmland, school grounds and private gardens as well as Borough Council land, including the edges of amenity grassland, parks, school grounds and playing fields, and roadside verges. Planting new hedgerows between existing habitats will link them together into a network of sites across the Borough. When planting new hedges, always use locally sourced species native to the Borough of Chesterfield. This is particularly important on mineral restoration sites where there has been a history of planting single species straight hedges, devoid of trees. There are also opportunities to increase the biodiversity value of existing hedgerows through changes in their management.

The Hedgerow Regulations 1997 sets out criteria for important hedgerows based on their age, archaeological and ecological interest and local distinctiveness. Hedgerows meeting these criteria are protected from removal. These regulations do not apply to garden hedges.

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Habitats

Targets for Hedgerows

- * Establish baseline data for areas of the Borough not already covered by 2015.
- * Increase the total number of hedgerow trees by 100 by 2020.
- * Bring an extra 2km of hedgerow into favourable condition by 2020.
- * Plant 3km of hedgerow by 2020, particularly where this will extend and/or link important hedgerow or woodland areas.
- * Ensure that there is no loss or fragmentation of key ancient and/or species-rich hedgerows in the Borough.

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Urban and Post-industrial Habitats

This habitat type includes the national priority habitat 'Open Mosaic Habitats on Previously Developed Land'.

Wildlife is not just restricted to the countryside. Urban habitats provide a wide variety of semi-natural and artificial habitats, green corridors and green spaces, often inter-linked, supporting a variety of species. Many are remnants of countryside incorporated into the town as it grew. However there are other habitats unique to towns and cities, or to areas which have been developed in the past, and these are important refuges for species which are adapted to living in relatively inhospitable conditions. These habitats fall into two main categories:

- a. Post-industrial areas such as demolished factory sites, derelict buildings, spoil heaps and disused railways that have been naturally colonised by wild plants and animals. These sites, referred to as 'Brownfield Sites', can often support an array of wildlife and can be biologically richer than an agricultural landscape. For example Spital Scrub Local Wildlife Site is a disused railway cutting with a high embankment and open rock covered in scrub which is botanically rich.
- b. Formal green spaces include parks, churchyards, playing fields, school and factory grounds, golf courses and private gardens etc. These often contain examples of other habitats listed in this document such as wildflower grassland or woodland and ponds. However more formal areas, depending on their design, management and planted species, can also support a variety of wildlife, especially birds and invertebrates.



The 2004 Baseline Study estimates a total of 38ha of post-industrial sites in Chesterfield. These sites are valuable for the range of different habitats that they provide both on an individual and borough wide level. This diversity is often a result of a lack of management and the differences in topography and drainage across a site. A derelict factory site for example may have old buildings, wet areas, and areas colonised by grasses and wildflowers. It may also have soil contaminated with heavy metals, which supports rare metal-tolerant plants. This variety is essential for species like great-crested newts, bats and ground nesting bees that need different habitats for feeding, breeding and winter shelter. These sites are often undervalued and subject to redevelopment or 'tidying up'.

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Habitats

These sites are particularly important in Chesterfield because of its historical association with mineral extraction. Piccadilly Cottages Local Wildlife Site is made up of quarry spoil heaps that have been colonised by scrub providing both botanical and entomological interest. Before sites are developed an ecological survey should be conducted to assess the potential wildlife value of the site and if necessary, mitigation should be used to ensure the continuation of this interest.

There are over 400 hectares of public open space in the Borough, including formal parks, country parks, cemeteries and two Local Nature Reserves. The Parks and Open Spaces Strategy (2001) found that many suffer from a poor overall structure and landscape integration, with a bias towards amenity open space over natural areas. The Strategy recognises that parks of 2 hectares or more need to perform a biodiversity function. It also recognises that modifications in management of sites, particularly churchyards, would bring about biodiversity gain. This offers a huge opportunity to improve the overall biodiversity value of urban habitats in Chesterfield and should be encouraged.

Urban wildlife and post-industrial sites can often provide the only local contact with nature for residents. They therefore represent a wealth of educational, economic and social benefits, with the potential to enhance these through positive management and a creation of a network of green corridors.

Targets for urban and post-industrial habitats

- * Ensure that urban and post-industrial sites important for biodiversity are protected through the planning system.

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Gardens and Allotments

Garden ponds, hedges, trees and compost heaps all support a diversity of species. Often these features are now more common in gardens than in the countryside, making them essential for the survival of many species. However the value of a garden for wildlife depends on a number of factors. Research by the London Ecology Unit suggests that bird numbers and diversity decrease as garden size decreases. It is also suggested that garden biodiversity is increased dramatically where a number of larger gardens adjoin each other, where features such as mature trees have been maintained within gardens or where ponds have been created.

Garden ponds can offer important habitat for amphibians such as the smooth newt and common toad, whilst garden plants such as buddleia can provide a nectar source for bumblebees and common butterflies such as the peacock. Compost heaps, particularly on allotments where there are is less disturbance, provide essential resting and breeding sites for hedgehog and grasssnake.



Gardens and allotments can form an intricate network of green corridors across an urban area. This network will facilitate the movement of species between areas of high biodiversity value. Gardens that adjoin these areas are particularly important because they may themselves provide an important wildlife resource. Garden ponds are particularly important in urban areas and should not be underestimated for their importance to amphibians and other wildlife.

Chesterfield has 28 Local Authority and 8 private allotment sites. This is higher than the national average, and reflects the typical provision for former mining communities. The Parks and Open Spaces Strategy recognises that there is little management and promotion of Local Authority sites, with many underused and overgrown. Although overgrown and underused allotments can provide important greenspaces and wildlife refuges, the Strategy highlights the need for a change of use with recommendations that they could be used for wildlife benefit. It is important to identify the extent of gardens and allotments within Chesterfield and in particular to identify those that may be of importance as biodiversity habitats and those that adjoin areas that could be encouraged to increase their nature conservation interest to form a network of green spaces.

The most important threat to garden biodiversity is a lack of awareness about their role as a nature conservation resource. This lack of awareness can result in unwitting damage being caused to the wildlife value of the garden. Cutting hedges during the bird breeding season, removing leaf litter and deadwood or stocking a previously fish free

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Habitats

pond with fish, can all have consequences for garden biodiversity, and could be avoided. The use of garden chemicals can also have an impact, for example the use of slug pellets in gardens has been associated with the decrease in song thrush populations. It is a priority to promote the wildlife and sustainable benefits of organic gardening, to local gardeners and allotment holders. Mastin Moor Community Gardens aim to be cultivated organically and could be used as a showcase to other local gardeners.

Within urban areas there can be pressure to develop large gardens for housing or off-street parking, which can result in a reduction of garden size and structural diversity, particularly in old established gardens. Underused allotments can become targets for development. Local people could be encouraged to manage an allotment as a wildlife garden, thereby maintaining its interest or its use could be changed to become wildlife-rich open spaces. Due to government pressures to increase housing densities, new housing developments are likely to have smaller gardens or none at all. It is important to try and ensure that new gardens will be provided where possible or that there is an adequate provision of communal open green spaces.

This habitat action plan should be read alongside the species plans for amphibians, garden birds and hedgehogs, which contain more specific recommendations.

Targets for gardens and allotments

- * Establish baseline data on the current wildlife value of gardens and allotments in the Borough by 2012.
- * Ensure that key areas of garden for wildlife are protected from development, and green links to the countryside maintained and enhanced.
- * Increase the number of gardens managed for the benefit of wildlife.

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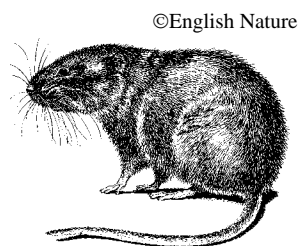
Section 2 - Flagship Species in Chesterfield

The following species have been chosen because they require specific actions over and above those for the habitats they are found in. They are also particularly characteristic of Chesterfield and/or readily identifiable by the public. Most are identified as priorities in the UK and Lowland Derbyshire BAPs.

Water Vole (*Arvicola terrestris*)

The water vole is a UKBAP Priority Species.

The water vole is the largest British vole species. It is predominantly plant eating, but will occasionally feed on snails, insects, crayfish and even carrion. They live in burrows on the banks of streams, rivers, canals and ponds, where water is slow flowing or static and the steep soft banks are covered with grasses, flowers, sedges and rushes. This vegetation provides water voles with cover, food and nesting material. Banks densely lined with trees are less suitable, as the shade can cause the lush bankside vegetation to die out.



Water voles were once common and widespread throughout the country, but have suffered a decline in recent years. A national survey in 1989-90 failed to find signs of voles in 67% of the sites where they were previously recorded and estimates put the loss at 94% by 2000. Derbyshire Wildlife Trust's ongoing monitoring programme shows a mixed picture with a general decline across the county, although some areas still have healthy populations. In Chesterfield key areas for water vole include Chesterfield Canal, Pools Brook and the River Doe Lea.

There are a number of threats to the water vole. The loss of habitat, through bank degradation, engineering works and mowing of bankside vegetation, have isolated and degraded vole habitats. American mink, having historically escaped from farms, have spread to most areas of the UK. Where mink are present water voles can be hunted to extinction. The use of poison along rivers to control rats can also wipe out local vole populations.

The water vole has full protection under the Wildlife and Countryside Act 1981. This prohibits intentional killing, injuring or taking and intentional or reckless damage, destruction or obstruction of any place used for shelter or protection.

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Targets for the Water Vole

- * Maintain the 2010 distribution and status of the water vole within the Borough.
- * Create opportunities for water voles to spread to new areas through habitat creation and enhancement in 5 strategic locations by 2020.

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Hedgehog (*Erinaceus europaeus*)

The hedgehog is a UKBAP priority species

Hedgehogs are the only spiny British mammal, and one of the easiest to see in the wild. They are found in most lowland habitats, but are most commonly seen in areas where there is grassland close to woodland, scrub or hedgerow. Urban and suburban gardens have become particularly important to hedgehogs seeking food and nest sites.

Hedgehogs are mostly nocturnal, and can travel up to 2km in their nightly forages for food. Beetles, caterpillars, earthworms, slugs and snails are the hedgehog's favourite food, but the diet is varied and they will also eat cereals, pet foods, and fresh meat.

Hedgehogs build nests called hibernacula in which to avoid the winter cold by hibernating, usually between November and early April. Favourite sites for these are under timber buildings, in piles of brushwood or leaves, or in compost heaps. If it is warm enough and there is enough food, they do not hibernate at all. The young are born between May and September, in litters of four or five.

Hedgehogs are widespread in lowland Britain, but surveys indicate a 20% decline in the population over 4 years (2001-5), with some areas showing an up to 50% decline. The evidence suggests that this decline has been greatest in rural areas. The main reasons for the decline are loss and fragmentation of habitats, increased use of pesticides (including slug pellets), and deaths from road traffic. Gardens have also become less suitable for hedgehogs, and the feeding of milk and bread by humans causes diarrhoea and dehydration which can lead to death.

Hedgehogs are found throughout the Borough, but anecdotal evidence suggests that they are declining.

There are many things which gardeners can do to help hedgehogs, including:

- * Leaving piles of logs, leaf litter and compost heaps as hibernation and nesting sites, or making and/or installing a purpose built box.
- * Planting hedges instead of fences to allow hedgehogs to move between gardens and provide habitat.
- * Checking for hibernating hedgehogs before lighting bonfires
- * Avoiding slug pellets and other chemicals

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- * Ensuring that ponds have shallow sides or ramps to allow hedgehogs and other wildlife to escape if they fall in
- * Feeding small amounts of cat food and leaving water out for hedgehogs rather than milk.

Encouraging hedgehogs is a good way of combating garden pests such as snails and slugs, which form a large part of their diet.

Targets for Hedgehog

- * Establish baseline data on the distribution of hedgehogs by 2012.
- * Increase the number of gardens which are suitable for hedgehogs.

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Amphibians

Great crested newt and common toad are UKBAP priority species.

Four of Britain's seven amphibian species occur in Chesterfield. These are the common frog (*Rana temporaria*), common toad (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*) and great crested newt (*Triturus cristatus*).

A wide range of habitats will support amphibians, including woods, hedgerows, gardens and post-industrial sites. They all need water during the spring in which to lay their eggs, but spend much of the rest of the year on land, sheltering during the day under logs and stones and in other damp places. An amphibian's diet is made up of slugs, snails, beetles and other invertebrates.

Common frogs are the most widespread and in terms of breeding are associated with fish-free shallow edged pools. Toads on the other hand prefer large deep ponds, often with fish (which avoid their bad tasting tadpoles). Toads will return to the same ancestral pond year after year for breeding. Both newt species like fish free pools with a diversity of vegetation, with great crested newts being more restricted as they prefer larger ponds. Groups of ponds with corridors of suitable habitat between them are especially important for all the species.

All British amphibians are believed to be declining, mainly due to the loss of suitable ponds and terrestrial habitat. Toads and great crested newts are the most threatened, having experienced significant declines. As well as infilling, pollution, fish introduction and inappropriate management of the pond or the habitat surrounding can make it unsuitable for amphibians. Toads are particularly affected due to their loyalty to their ancestral pond, and because they migrate in large numbers during the breeding season road deaths are also significant. Two diseases, Ranavirus ('red leg' disease) and Chytridiomycosis are having a major impact on amphibian populations worldwide, but their impact on British species is not yet understood.

Frogs, toads and smooth newts are subject to Section 9(5) of the Wildlife and Countryside Act 1981. This means that the sale, transportation or advertising for sale for these species is prohibited. Great crested newts and their habitats have maximum protection under UK and European Law. This means (in summary) that it is an offence to intentionally or recklessly capture, injure or kill a great crested newt or to damage, destroy or obstruct its breeding or resting place. Handling, possessing or disturbing a great crested newt is also an offence without a license.

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There has been no comprehensive survey of amphibians in Chesterfield, so their detailed distribution is unknown. Awaiting info from Chris Monk.

As ponds in the countryside have disappeared, garden ponds have become increasingly important for amphibians. Encouraging householders to create new ponds, and to look after them in a way which benefits wildlife is vital if amphibians (and many other species) are to survive. It is also important that suitable habitats for amphibians outside the breeding season, such as log piles and rockeries are provided, and that gardeners avoid the use of slug pellets and other harmful chemicals. Frogs, toads and newts are very beneficial to gardeners, helping to control slugs, snails and other pests.

This action plan should read alongside the standing waters action plan.

Targets for Amphibians

- * Establish baseline data on distribution of amphibians by 2012 and identify key breeding areas.
- * Increase the number of garden ponds created and managed for wildlife.

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Garden Birds

House sparrow (*Passer domesticus*), bullfinch (*Pyrrhula pyrrhula*), starling (*Sturnus vulgaris*) and song thrush (*Turdus philomelos*) are all UKBAP priority species.

Watching birds on a garden bird table is one of the easiest ways of experiencing nature at first hand. Adults and children alike enjoy feeding garden birds, and most people can identify at least one or two familiar species. Common garden birds in Chesterfield include blue tit, robin, blackbird, housemartin, swift and chaffinch, among many others.

As habitats in the wider countryside have become lost and fragmented, and farmland managed more intensively, gardens have become increasingly important for many species of birds. However, the value of a garden for birds depends on how it is designed and cared for, and as the use of chemicals and a more manicured approach to gardening increased, bird populations suffered as a result. Retaining large gardens, groups of gardens, and green links with the countryside is vital for urban bird populations.

Some once very common garden birds are now seriously threatened. The house sparrow population, for example, has declined by over 60% in the last 25 years, while starling numbers have fallen by 66% since the mid-1970s (RSPB). While these declines were largely due to changing agricultural practices, gardens are now vital to their long term survival.

Gardeners can do a number of things to make their gardens better for birds. These include:

- * Creating nesting places by installing boxes and growing dense shrubs and climbers;
- * Providing a food source by growing British berrying shrubs like holly and elder, and plants with edible seeds, and tidying borders and cutting shrubs in late winter/ early spring to help retain seeds and fruit;
- * Encouraging harmless and beneficial insects by gardening organically, planting nectar bearing flowers and leaving 'untidy' corners;
- * Providing a water supply with a pond or water feature.

By making a garden more attractive to birds, gardeners can also attract other wildlife such as bats and amphibians.

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Targets for Garden Birds

- * Establish baseline distribution data for garden birds by 2012 and identify key areas.
- * Install 500 bird boxes by 2020.
- * Increase the number of gardens managed in a way that encourages birds.

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Bumble Bees

No UKBAP priority bumble bee species have been recorded in Chesterfield. However, bumble bees are a keystone group of species which indicate a healthy ecosystem.

Bees are part of the very large insect Order, the Hymenoptera, which also include wasps, sawflies and parasitic wasps. There are 267 native species of bee in Britain, of which 25 are bumble bees. Common species found in Chesterfield include the red and white tailed bumblebees (*Bombus lapidarius*, *Bombus lucorum*) and the common carder bee (*Bombus pascuorum*).

Bumblebee's, with their round furry bodies and bumbling flight, are a familiar sight in both rural and urban areas. They are social insects, with a single mated queen forming a new small colony each spring. She forages on early flowers for nectar and pollen, then seeks a suitable nesting site in which she lays her first batch of eggs. When the first worker bees emerge (usually from mid-June), they begin foraging to provide for the growing colony. The queen remains in the nest producing new broods. From late July onwards, males and young queens are produced from the mature colony. Mating occurs, the young queens forage to build up food stores then over-winter underground or in a sheltered spot. The remaining workers and males of the colony die off by the end of the season.

Bumblebees are dependent on a constant supply of suitable flowers throughout the spring and summer. They need these both for nectar and for pollen to feed their developing larvae. They also need a place to shelter and build their nest. Carder bumblebees will make their nest in long, tussocky grass, while other species prefer undisturbed compost heaps, old mouse or bird nests, or underneath hedgerows.

There has been a 70% decline in bumblebee numbers over the past 30 years, primarily as a result of intensive farming methods which have increased pesticide use and reduced wildflowers. Three of our native species are now extinct. This is ironic given the crucial role of the bumblebee as a pollinator of crops. Bumblebees are generally associated with wildflower-rich grasslands, but several species can also be found in gardens, parks and brownfield sites, which have become increasingly important as their normal habitats disappear.

Gardeners can help bumblebees in many ways, including:

- * Planting bee-friendly flowers such as herbs and traditional cottage garden plants. Include a selection of flowers of different shapes (e.g bowl-shaped, bell-shaped) which will appeal to different species, as they have different tongue lengths. Avoid 'double flowers' and bedding plants such as busy lizzies, pansies and petunias, which have little or no nectar.

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- * Leaving a part of the garden less intensively cultivated, to provide suitable nesting sites.
- * Creating an underground nest site by digging a hole in a dry place, putting a ball of moss or dry grass in the bottom and covering with a slab to leave a small entrance.
- * Creating an above ground nest site by filling an upturned flower pot or bird box with moss or animal bedding, and leaving old birds nests in place.
- * Avoiding insecticides (including organic ones)

Helping bumble bees will also encourage other beneficial insects such as butterflies and ladybirds.

Targets for Bumblebees

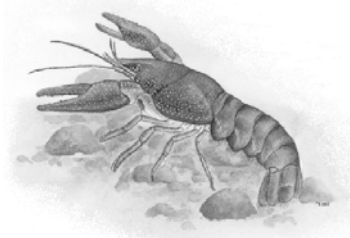
- * Establish baseline data for bumblebee distribution by 2012, and identify key areas.
- * Increase the number of gardens managed in a way that encourages bumblebees.

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White-clawed Crayfish (*Austropotamobius pallipes*)

The white clawed crayfish is a UKBAP Priority Species.

The white-clawed crayfish, a relative of the lobster, is the UK's only native freshwater crayfish. At one time it was widespread in rivers, streams and lakes throughout England and Wales, particularly in calcium-rich waters. It tends to be nocturnal and spends much of its time hiding under stones, in tree roots and in rock crevices. It is omnivorous and feeds on a wide variety of vegetable and animal matter.



Prior to the 1980s, UK populations of white-clawed crayfish were relatively stable. However, the species has suffered a national decline of 25% in the last 25 years and similar trends are evident in other countries, leading to the species being classed as globally threatened.

Chesterfield is one of the last remaining places in Derbyshire with surviving white clawed crayfish populations. In 2006 Chesterfield Borough Council and the Environment Agency commissioned a survey of the borough which found that the number of streams and rivers supporting crayfish had reduced. The most significant loss occurred on the river Hipper and its tributaries.

One of the main threats to the white-clawed crayfish is the introduced American signal crayfish, which is not only bigger and so can out-compete our native crayfish for food and habitats, but it can also carry a fatal fungal disease known as crayfish plague. The fungus can also be transmitted by a variety of other means, including water, fish, and damp-fishing equipment and boots used in infected rivers. Although the 2006 survey found no American signal crayfish, not all still water sites have been surveyed yet. Furthermore, there are signal crayfish in the River Moss, downstream of Chesterfield in the same Rother catchment, other populations of signal crayfish in Derbyshire and recent outbreaks of crayfish plague in the Sheffield area. All white-clawed populations are potentially at risk from accidental infection with crayfish plague. In the long term there is also the risk of invasion by established population(s) of signal crayfish in the catchment, where populations of white-clawed crayfish are not protected by barriers to invasion.

White-clawed crayfish are also vulnerable to water pollution, particularly from the illegal disposal of synthetic pyrethroid sheep dips or contamination from recently dipped sheep, from other pesticides and sewage, especially where sewer blockages lead to discharges of combined sewer overflows

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during dry conditions and also to habitat loss or modification, including the dredging and straightening of channels and the reprofiling of stream banks. Climate change may also pose a threat in future with a predicted increased frequency of summer droughts and winter flooding degrading habitat quality and suitability. Some streams with potentially suitable habitat most years become too dry for white-clawed crayfish in dry summers.

The white clawed crayfish is heavily protected under the Wildlife and Countryside Act 1981 and the European Habitats Directive. This means (in summary) that it is an offence to intentionally or recklessly capture, injure or kill a white clawed crayfish or to damage, destroy or obstruct its breeding or resting place. Handling, possessing or disturbing a white clawed crayfish is also an offence without a licence, or under the supervision of a licence-holder.

Targets for White-clawed Crayfish

- * Maintain existing populations of white clawed crayfish.
- * Ensure that the crayfish Ark site at Holmebrook Valley Park is managed appropriately.
- * Undertake a feasibility study for establishing a further ark site at Pools Brook Country Park.
- * Carry out surveys and feasibility study for ark sites at other suitably isolated still water sites in the Borough with the aim of at least 3 more potential ark sites in the Borough by 2012.
- * Investigate the potential to restock the River Hipper with white-clawed crayfish.
- * Aim to have all anglers fishing in the Borough using clean gear at all times.

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Section 3 - Taking Action for Biodiversity in Chesterfield

This section describes the specific actions that Chesterfield Borough Council, Derbyshire County Council and Derbyshire Wildlife Trust, working with others, will take to help achieve the targets set for each priority habitat and flagship species. There are five common themes to the work required, under which all of the actions for each habitat and species fall. The tables below indicate which priority habitat or species each action is relevant to; the codes used for each habitat or species are shown below. Some of the actions listed are applicable to all of the habitats and/or species and are indicated thus. The tables also indicate the lead organisation for each action to ensure its successful implementation.

Codes for priority habitats and species.

Habitats:		Species:		Organisation:	
Code	Habitat	Code	Species	Code	Organisation
HAP	Habitat Action Plan	SAP	Species Action Plan	CBC	Chesterfield Borough Council
WRG	Wildflower-rich grassland	wcc	White-clawed crayfish	DWT	Derbyshire Wildlife Trust
SW	Standing water – ponds, lakes and canals	wv	Water vole	DCC	Derbyshire County Council
RS	Rivers and streams	he	Hedgehog	NE	Natural England
SFR	Swamp, tall-herb fen and reedbed	am	Amphibians	DARG	Derbyshire Amphibian and Reptile Group
BW	Broad-leaved woodland	bu	Bumblebees	DMG	Derbyshire Mammal Group
WG	Wet grassland	gb	Garden birds	NT	National Trust
H	Hedgerows			EA	Environment Agency
UH	Urban and post-industrial habitats			CCP	Chesterfield Canal Partnership
				FC	Forestry Commission
GA	Gardens and Allotments			LBAP	Lowland Derbyshire LBAP Partnership
				LCG	Local Community Groups

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1. Survey and Monitoring

Surveying Chesterfield will provide information on habitats and species and where they are found. Good information is essential if informed decisions about the use and management of land in the Borough are to be made. It is also vital that we can monitor the success of our actions.

ACTION	Lead Organisation	To be done by	HAP / SAP	Key Delivery Mechanism(s)
1a Conduct a Borough wide garden wildlife survey, involving the public, targeted at priority species and habitats	CBC	2012	gb he bu am sw	Greenprint Partnership
1b Conduct a pond survey (excluding garden ponds) also including priority species	CBC/DWT	2013	sw am wcc wv	Greenprint Partnership
1c Complete the hedgerow survey for areas not previously covered	CBC/DWT	2015	h	Greenprint Partnership
1d Conduct survey of white clawed crayfish at Ark site and other known locations. Extend to unsurveyed still water sites to identify potential threat from any undetected non-native crayfish or opportunities for new potential ark sites.	CBC/EA	2012	wcc	Greenprint Partnership
If surveys indicate no signal crayfish in Hipper subcatchment, carry out restocking with wcc from Barlow Brook or other suitable donor population	CBC/EA	2012	wcc	
1e Continue the rolling programme of Local Wildlife Site (LWS) monitoring and NI197 reporting.	DWT/CBC	annual	All	Service Level Agreement
1f Continue the water vole monitoring programme	DWT	annual	wv	DWT Project

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2. Protection

If Chesterfield's biodiversity is to be maintained in the long term, it is essential that existing valuable sites, corridors and stepping stones that link them are protected from loss and damage. These are the reservoirs from which biodiversity can be restored to the rest of the Borough. It is also important that priority species are protected from inadvertent or deliberate harm.

ACTION	Lead Organisation	To be done by	HAP / SAP	Key Delivery Mechanism(s)
2a Ensure that Local Wildlife Sites (LWS) legally protected and BAP priority habitats and species are protected through the planning system.	CBC/DWT	annual	All	Local Development Framework. SLA
2b Ensure that areas of urban greenspace important for Greenprint species and habitats, and green corridors are protected through Green Infrastructure policies.	CBC	annual	All	Local Development Framework.
2c. Ensure Greenprint priority habitats and species outside of designated sites are protected through the planning system wherever possible.	CBC/DCC	annual	All	Local Development Framework. SLA
2d. Work with communities to create at least two new Local Nature Reserves.	CBC/DCC/LC G	2020	All	
2e Ensure that information on biodiversity is disseminated to planning officers, parks and countryside staff and others so that they have up to date knowledge.	CBC/NE/DCC/LBAP	annual	All	Greenprint Partnership
2f Ensure that woodland and trees of amenity value are protected by Tree Preservation Orders where appropriate.	CBC/DCC	2020	with	Tree Officers / Development Control

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2. Protection continued	Lead Organisation	To be done by	HAP / SAP	Key Delivery Mechanism(s)
2g. Discourage the use of rodenticides in areas supporting water voles. Ensure that pest control officers and agencies active within the Borough of Chesterfield are fully aware of the issues relating to water voles (i.e. correct identification of water voles, known water vole sites, how to ensure pest control does not affect water voles).	CBC/DWT	annual	wv	Greenprint Partnership
2h Encourage good biosecurity and hygiene amongst anglers and those working on ponds to reduce the risk from crayfish plague and amphibian diseases. Ensure information on hygiene measures is available to all anglers who fish within the Borough	CBC/EA/DWT	annual	wcc am	Greenprint Partnership

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3. Management

Most habitats depend on sympathetic and consistent management in order to maintain their biodiversity value.

ACTION	Lead Organisation	To be done by	HAP / SAP	Key Delivery Mechanism(s)
3a Ensure all Borough Council owned land, particularly sites holding priority habitats or species are managed according to management plans that maximise their value for biodiversity.	CBC	annual	All	Parks and Open Spaces Dept
3b Ensure that green spaces and corridors identified by the Green Infrastructure Study are managed to enhance their biodiversity value.	CBC	annual	All	Local Development Framework
3c Encourage and support the owners of Local Wildlife Sites and other areas of priority habitat to manage their land for biodiversity, with the aim of bringing them into positive management and favourable condition.	CBC/DWT/NE	annual	All	Service Level Agreement. Projects.
3d Control and reduce invasive non-native species on county highways, waterways, DCC and CBC owned or managed land in conjunction with the Highways Agency and the Environment Agency (EA).	CBC/DCC/EA	annual	rs sw bw sfr wcc	Highway maintenance. Parks and Open Spaces.
3e Where necessary, consider appropriate mink control to protect water vole populations.	CBC/DWT/DC C	annual	wv	Project

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4. Habitat Creation

In order to redress past losses, it is vital to create new areas of habitat, particularly where these can link or extend existing ones. The aim is to create a network of wildlife habitats linking rural and urban areas and enabling wildlife to move and spread.

ACTION	Lead Organisation	To be done by	HAP / SAP	Key Delivery Mechanism(s)
4a Require the creation of priority habitats or species features in association with development and green infrastructure delivery in order to deliver Greenprint, LBAP and Regional Plan targets.	CBC/DCC	annual	All	Local Development Framework / Development Control
4b Create new areas of habitat on partner owned land, making use of available grant aid, in order to deliver habitat targets.	CBC/DCC/LC G/NT	annual	All	Greenprint Partnership
4c Ensure that in all habitat creation projects locally sourced seed/plants are used as a priority.	CBC/DCC	annual	All	Development Control Greenprint Partnership
4d Require all new developments to use locally native species in their landscaping wherever appropriate. Where this is not possible use cultivated species of value to wildlife.	CBC	annual	All	Development Control
4e Encourage landowners/farmers to use available grant aid to create priority habitats on their own land. Target those areas that will provide benefits to priority species.	FC/NE DWT/NT	annual	All	HLS/ELS/EWGS
4f Promote the provision of garden space in new developments, particularly those that maximize continuous areas of garden	CBC	annual	GA	Local Development Framework / Development Control

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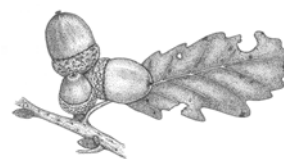
5. Awareness Raising

The survival of biodiversity depends on the actions of individuals. It is important to raise awareness of biodiversity issues throughout the Borough to enable full community participation in the implementation of the Greenprint and the wider LDLBAP. Awareness raising should also target key sectors of the community such as landowners and businesses, who can have positive and negative impacts on biodiversity.

ACTION	Lead Organisation	To be done by	HAP / SAP	Key Delivery Mechanism(s)
5a Run a programme of awareness raising about biodiversity in the Borough focusing on the key habitats and flagship species and issues affecting them.	CBC/DWT/DC C/LBAP	annual	All	Greenprint Partnership, events, CBC website
5b Develop opportunities for local communities to participate in conservation work on local sites wherever possible.	CBC/DWT/LCG	annual	All	Projects
5c Promote wildlife-friendly gardening as a vital way in which householders can help biodiversity.	CBC/DWT	annual	G a s w h e b u g b	Greenprint Partnership, events, CBC website
5d Where action for biodiversity is taking place in public open spaces use interpretation to publicise and explain it.	CBC/DCC	annual	All	Parks and Open Spaces / Countryside staff
5e Encourage staff and public to report new cases of potentially damaging invasive species. Set up procedure for compiling records and for investigating them, e.g. reports of non-native crayfish at sites	EA/DCC??	annual	All	Website with contact information??

Section 4 – Working Together in Chesterfield

What can you do for biodiversity?



Protecting, promoting and enhancing Chesterfield's biodiversity depends on groups and individuals working together. The previous section explained the actions that Chesterfield Borough Council, Derbyshire Wildlife Trust and others are proposing to take to achieve the targets in the BAP. However we cannot achieve this alone, and action for biodiversity will only be achieved through partnership and liaison with landowners, local businesses, communities and individuals. This section sets out some of the things that these people can do to help.

Sharing resources, knowledge and expertise will stimulate and encourage action on the ground, and the BAP process provides a means of bringing people together with common priorities and targets.

We can only measure the success of our actions if we know what progress has been made towards the targets set out in the Lowland Derbyshire Biodiversity Action Plan. A system of reporting actions is being developed which will help to identify where more effort needs to be focused in the coming years.

If you are carrying out any work towards the targets set out in this plan please contact the CBC Sustainability Unit (see contacts). Regular contributors to biodiversity targets will be invited to join the Derbyshire Biodiversity Partnership, made up of groups and organisations, contributing to the Action Plan.

Individuals and Community Groups

Biodiversity needs local action on the ground. Local groups can be more effective than anyone in making positive change for biodiversity in their local area. Community environmental groups, 'Friends of' groups, local scouts and guides, schools, Women's Institute, and Youth Groups all have a part to play. There are many conservation organisations in Derbyshire who will provide advice and support for any group wishing to initiate a project.

Some suggestions of ways in which Individuals and Community Groups can help the BAP process are to:

- ✓ Work with landowners and Chesterfield Borough Council to manage local sites for nature conservation.

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- ✓ Use home-made or peat-free compost and raise awareness of the need to protect peat bogs.
- ✓ Create a community wildlife garden, pond or nature reserve.
- ✓ Turn your garden into a wildlife garden.
- ✓ Take part in a local wildlife survey or recording scheme e.g Chesterfield Garden Survey.
- ✓ Abandon the use of chemical fertilisers, herbicides or insecticides and try organic gardening instead.
- ✓ Increase awareness about priority habitats and species by running a local publicity campaign, doing press releases and radio interviews, and holding public meetings.
- ✓ Lobby effectively to the Government via your local MP, district authority and local authority for increased protection for priority habitats and species
- ✓ Take an interest in local planning issues.
- ✓ Encourage re-use and recycling, which reduces the amount of local land needed for landfill sites.
- ✓ Create a wildflower meadow or field margin on school grounds or churchyards.
- ✓ Compost all garden and kitchen waste.
- ✓ Liaise with neighbours to create schemes that run over several gardens.
- ✓ Erect bird and bat boxes in suitable locations.
- ✓ Join Derbyshire Wildlife Trust or another local conservation organisation.



There are plenty of organisations available to give advice on all aspects of habitat creation, management and nature conservation. They will help local groups and individuals to identify biodiversity action opportunities in their local area and carry them through. Derbyshire Wildlife Trust has produced a Habitat Creation Guide that also contains planting lists for projects and advice on habitat creation.

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Businesses

Businesses have a great deal of influence over air and water quality, land development and resource use. Now is the time for every business to take real and positive action towards a more sustainable way of working that is in balance with the natural world. Getting involved in the BAP process is one way in which businesses can achieve this.

Businesses can benefit biodiversity in the following ways:

- ✓ Incorporate biodiversity into Environmental Management Systems to ensure that negative impacts on biodiversity are minimised and positive ones maximised.
- ✓ All businesses with open spaces around their premises can increase their value for wildlife through planting native trees and wild flowers, creating habitats or simply installing bird and bat boxes. Some businesses own sites that are recognised as Local Wildlife Sites, and they need to ensure that the management of the site maintains its wildlife value.
- ✓ Natural regeneration of vegetation should be considered initially before planting schemes are considered in all developments.
- ✓ Ensure that all new development or restoration safeguards existing features of conservation value, creates new areas of habitat wherever possible and addresses the need for long term management.
- ✓ Encourage employees to get involved in conservation, perhaps by forming a group to do practical tasks with Derbyshire Wildlife Trust or BTCV.
- ✓ Ensure that 'green purchasing' is exercised when buying supplies for business use, including staff canteens.
- ✓ Review resource use, waste production and discharges in the business. Can you cut down on the amount of materials used (including paper, water etc)?
- ✓ In all new developments you should consider the use of Sustainable Drainage Systems (SuDs).
- ✓ Businesses can benefit biodiversity tremendously through the provision of resources for species and habitats. For example businesses can make a financial contribution to a project which



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protects and enhances biodiversity i.e. a school ground nature reserve.

- ✓ Support voluntary conservation organisations and community groups or become a corporate member of Derbyshire Wildlife Trust.

EarthWatch have produced three booklets providing advice on Business and Biodiversity. See References and Useful Addresses.

Farmers

Farmers have a vital role to play in protecting and enhancing the biodiversity of the Borough of Chesterfield.



- ✓ Contacting the Farming and Wildlife Advisory Group (FWAG) for farm conservation advice.
- ✓ Identifying areas of priority habitat and then managing them to maintain and enhance their wildlife value.
- ✓ Creating and extending areas of priority habitats through natural regeneration and native, local provenance planting.
- ✓ Producing nature conservation management plans for farms, estates and other areas of land in private ownership, with advice from organisations like Derbyshire Wildlife Trust and FWAG.
- ✓ Ensuring the protection of sensitive species such as those mentioned in this document.
- ✓ Contacting Derbyshire Wildlife Trust to find out if the land qualifies as a Local Wildlife Site and access information and advice on appropriate management and grant funding.

Some more specific examples of changes in practice that have a positive impact on biodiversity are:

- ✓ Decreasing the use of fertilisers and pesticides, including slug pellets, and avoiding spray drift onto field margins.
- ✓ Avoiding the removal of hedgerows and creating new ones with local provenance, native hedgerow species.
- ✓ Laying hedgerows or cutting on a rotational basis once every three years.

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- ✓ Creating ponds and associated wet areas such as ditches flushes and marshy areas.
- ✓ Use native local provenance species in planting schemes.
- ✓ Resources for promoting biodiversity for larger landowners can be found by entering into Environmental Stewardship and other grant schemes such as the English Woodlands Grant Scheme.

There are many organisations such as Natural England, NFU, the Country Land and Business Association and Derbyshire Wildlife Trust, who can all offer the kind of support and advice that landowners need to balance wildlife and economic needs.

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Appendix 1

The animals and plants below are listed as BAP priorities in the UK and the Lowland Derbyshire LBAP and are found in the Borough of Chesterfield. Some of these species have been selected as Flagship species for the Borough as they are locally important, characteristic or in decline. The other species listed, while not necessarily priorities in the Borough are important at a national level. These species should also be protected and their populations enhanced through the protection and management of the priority habitats. More specialist groups e.g. lower plants and invertebrates, which are BAP species, will be added when further information about their distribution in Chesterfield is known.

UK Biodiversity Action Plan Species – These species are those of the highest concern and under the most threat nationally.

Amphibian

Great crested newt
Common toad

Birds

Bullfinch
Dunnock
Grasshopper warbler
Grey partridge
House sparrow
Lapwing
Lesser redpoll
Linnet
Marsh tit
Reed bunting
Song thrush
Starling
Yellowhammer

Mammals

Brown hare
Brown long-eared bat
Harvest mouse
Hedgehog
Noctule bat
Otter
Polecat
Soprano pipistrelle
Water vole

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Reptiles

Grass snake

Slow worm

Adder

Common lizard

Crustaceans

White-clawed crayfish

Butterflies

Dingy skipper

Small heath

The Wall

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Appendix 2

References

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- Changes in the extent of semi-natural grassland in lowland Derbyshire between 1983 and 1999 and recommendations for future conservation action (2001), K. Huston, Derbyshire Wildlife Trust.
- CHART (2009) Community Strategy for Chesterfield and North East Derbyshire 2009-2026. CHART
- Derbyshire Inventory of Ancient Woodland (1992), Nature Conservancy Council.
- East Midlands Biodiversity Forum (2002), England's East Midlands wildlife: the future you can help! East Midlands Biodiversity Forum.
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- Pools Brooks and River Doe Lea Wildlife Strategy – Consultation Draft (2000), Derbyshire County Council.
- The Lowland Derbyshire Local Biodiversity Action Plan (2004). Lowland Derbyshire Biodiversity Partnership
- The Water Vole in Derbyshire (1999) Derbyshire Wildlife Trust.

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Appendix 3

Useful Addresses

Chesterfield Borough Council – Sustainability Unit

Chesterfield Borough Council
Town Hall
Chesterfield
Derbyshire S40 1LP
Tel: 01246 345765
E-mail
sustainability@chesterfield.gov.uk

Country Land and Business Association

The Hayloft, Sutton Lodge
Sutton Bassett
Market Harborough
Leicestershire LE16 8HL
Tel: 01858 468949
info@eastmidlandscla.org.uk
www.cla.org.uk

Derbyshire Biological Records Centre

Nick Moyes
Derby Museum
The Strand
Derby
DE1 1BS
Tel: 01332 641912
Nick.moyes@derby.gov.uk

Derbyshire BTCV

Suite 22
Chester Court
Alfreton Road
Derby
DE21 4AF
Tel: 01332 348591
derbybiodiversity@bctv.org.uk
www2.bctv.org.uk

Derbyshire County Council

County Hall
Matlock
Derbyshire
DE4 3AG
Tel: 08456 058508
Contact.centre@derbyshire.gov.uk
www.derbyshire.gov.uk

Derbyshire Wildlife Trust

East Mill
Bridge Foot
Belper
Derbyshire
DE56 1XH
Tel: 01773 881188
enquiries@derbyshirewt.co.uk
www.derbyshirewildlifetrust.org.uk

EarthWatch,

Mayfield House,
256 Banbury Road, Oxford,
OX2 7DE
Tel: 01865 318838
info@uk.earthwatch.org
www.earthwatch.org/Europe

Natural England

Peak District and Derbyshire Team
“Endcliffe”
Deepdale Business Park
Ashford Road
Bakewell
Derbyshire
DE45 1GT
Tel: 0300 0606000
eastmidlands@naturalengland.org.uk
www.naturalengland.org.uk

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Environment Agency

(Covers Rother catchment)

Phoenix House,
Global Avenue
Millshaw,
Beeston Ring Road
Leeds
West Yorkshire
LS11 8PG
08708 506506

enquiries@environment-agency.gov.uk.
www.environment-agency.gov.uk.

Farming and Wildlife Advisory Group (Derbyshire)

Tel: 07753 793580

Jane.clement@fwag.org.uk.
www.fwag.org.uk.

The Forestry Commission

Sherwood Pines Forest Park
Edwinstowe
Mansfield, Notts
NG21 9JL

Tel: 01623 822447

Enquiries.sherwood@forestry.gsi.gov.uk
www.forestry.gov.uk.

Groundwork Creswell, Ashfield and Mansfield

The Groundwork Centre
97 Creswell Road
Clowne
Chesterfield
S43 4NA

Tel: 01246 570977

www.eastmidlands.groundwork.org.uk.

Lowland Derbyshire

Biodiversity Partnership

c/o Environment Services
Shand House, Dale Road South
Matlock
Derbyshire DE4 3RY

Tel: 01629 539771

Debbie.alston@derbyshire.gov.uk
www.derbyshirebiodiversity.org.uk.

RSPB

46, The Green
South Bar
Banbury
Oxfordshire

OX16 9AB

Tel: 01295 253330

www.rspb.org.uk.

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Appendix 4 **List of Consultees**

Allotments Association
Amphibian and Reptile Group
Brimington Parish Council
CHART
Chesterfield Borough Council
Civic Society
Community Forums
Community Strategy - Environment and Transport Group
Derbyshire Bat Group
Derbyshire County Council
Derbyshire Ornithological Society
Derbyshire Wildlife Trust
East Derbyshire Woodlands Project
Natural England
Environment Agency
Forestry Commission
Friends of the Earth
FWAG
Groundwork Cresswell
North-East Derbyshire District Council
Severn Trent Water
Sorby Natural History Society
Staveley Town Council
Yorkshire Water

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