

Rushcliffe Nature Conservation Strategy 2010 – 2015

FOREWORD

Consultations with the community since 1993 have consistently shown that there is a great deal of interest in the natural environment of Rushcliffe. When residents are aware that sensitive wildlife sites are threatened, they are quick to show their concern. This strategy not only sets out to try to safeguard existing known sites of interest, but also to encourage the development and improvement of new sites. The strategy also seeks to preserve the existing links between wildlife sites and to establish new links to allow the spread of plants and animals.

The objective of the strategy is not only to benefit wildlife; visitors and residents will also benefit through the opportunities to observe and enjoy nature. A wildlife-rich environment also reflects an environment that is good for humans. Properly pursued, the strategy will benefit not only those who live and work in Rushcliffe now, but also future generations.

Public interest must be translated from words to action. Everyone has a responsibility to do their bit and this strategy outlines actions that statutory and voluntary organisations, businesses and individuals can take.

This strategy replaces the 2003 nature conservation strategy "A better future for Rushcliffe". The strategy has been developed under the auspices of the Rushcliffe Community Partnership, which brings together statutory agencies and voluntary bodies, with the Borough Council and Nottinghamshire Wildlife Trust playing leading roles, but encompassing the results of wide-ranging consultations with individuals, groups and organisations.

Changes in government guidance on sustainable development, biodiversity and planning and changes in legislation all emphasise the importance of effective environmental protection and wildlife conservation for meeting the aims of sustainable development, and the need to provide a good quality environment in which people can live and work.

Within Rushcliffe's Community Strategy, a clear undertaking has been made to protect and enhance the natural environment, the Rushcliffe Nature Conservation strategy is key to this work.

The major organisations shown below commend this strategy to everyone who reads it. We will do our bit, so please join us and do yours.

Rushcliffe Borough Council



Nottinghamshire Wildlife Trust



Campaign to Protect Rural England - Nottinghamshire



Nottinghamshire County Council



Nottinghamshire Biodiversity Action Group



Farming and Wildlife Advisory Group - Nottinghamshire



Natural England - East Midlands



Rushcliffe Community Partnership



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ACRONYMS AND ABBREVIATIONS USED IN DOCUMENT

BG	British Gypsum
BTC	Bingham Town Council
BTCV	British Trust for Conservation Volunteers
BTO	British Trust for Ornithology
BuC	Butterfly Conservation
BW	British Waterways
CA	Countryside Agency
CLA	Country Land & Business Association
CPRE	Campaign to Protect Rural England
CTC	Cotgrave Town Council
CW	Charnwood Wildlife
DEFRA	Dept. of Environment, Food and Rural Affairs
EA	Environment Agency
FC	Forestry Commission
FoG's	Friends of Groups
FoRCP	Friends of Rushcliffe Country Park
FWAG	Farming and Wildlife Advisory Group
GPC	Gotham Parish Council
IWA	Inland Waterways Association
KPC	Keyworth Parish Council
LBAP	Local Biodiversity Action Plan
LNR	Local Nature Reserve
MFDS	Manor Farm Donkey Sanctuary
NBAG	Nottinghamshire Biodiversity Action Group
NBGRC	Nottinghamshire Biological & Geological Records Centre
NCC	Nottinghamshire County Council
NFU	National Farmers Union
NRV	Notified Road Verges
NWT	Nottinghamshire Wildlife Trust
PCs	Parish/Town Councils
PPS	Planning Policy Statement
RBC	Rushcliffe Borough Council
RCAN	Rural Community Action Nottinghamshire
RNCSIG	Rushcliffe Nature Conservation Strategy Implementation Group
RSPB	Royal Society for the Protection of Birds
RuBOP	Rushcliffe Barn Owl Project
SBPC	Sutton Bonington Parish Council
SINC	Site of Interest for Nature Conservation
SSSI	Site of Special Scientific Interest
STW	Severn Trent Water
Vol's	Volunteers
WWF	World Wide Fund for Nature

1) EXECUTIVE SUMMARY

The object of this strategy is to protect and enhance Rushcliffe's wildlife interest, whilst helping achieve the Nottinghamshire Local Biodiversity Action Plan objectives, placing a particular emphasis on species-rich grassland and wetland habitats, both typical of Rushcliffe but now much reduced in area. The strategy identifies a wide range of issues that affect Rushcliffe's wildlife. It identifies that Rushcliffe's important wildlife is found in a scattered network of Sites of Special Scientific Interest (SSSIs) and Sites of Importance for Nature Conservation (SINCs). Rushcliffe is an important area for some species: Black poplar, barn owls, water voles and great crested newts are found in Rushcliffe, but are rare in most of Nottinghamshire.

The strategy considers the importance of the wider countryside (not just nature reserves) and urban areas in supporting our wildlife. It examines the issues surrounding a variety of habitats, and considers opportunities for community involvement and the role of the planning system in conserving our natural heritage and minimising damaging effects on the wider countryside. The level of sympathetic land management, plus the small size and isolation of the wildlife sites, are major factors limiting wildlife in Rushcliffe. There is great scope for enhancing the Borough for wildlife with appropriate funding, in the long-term, but whether it is the creation and management of a nature reserve or the construction of a garden pond, every action has a value in enhancing Rushcliffe's wildlife resource.

Over the past decade progress has been made on developing nature conservation projects in a co-ordinated way, but prior to this was largely ad-hoc; hence the fragmented distribution of nature reserves in Rushcliffe. The aim of this strategy is to continue to develop an approach to nature conservation that targets specific areas, for example where there are a number of important sites.

The strategy proposes action to promote good management of sites, habitat creation and improved green infrastructure. Such projects are not only beneficial for wildlife, but provide an impetus for greater community involvement in nature conservation and improved quality of life.

The lack of full and up to date knowledge of what we have in the Borough is a problem; we can not effectively protect what we do not know about, continuing to survey the borough is vital.

The principal objectives for this strategy are to:

- Promote an appropriate standard of management on nature reserves (see Appendix 1) in order to maintain and enhance their biodiversity.
- Promote sympathetic land management for wildlife in rural and urban areas.
- Support a continuing programme of surveying and reporting of Rushcliffe's biodiversity.
- Increase understanding of wildlife and nature conservation through raising awareness and improved access to sites.
- Influence the impact of development on wildlife and their habitats.
- Target resources to reduce habitat fragmentation and contribute to landscape scale conservation, assisting wildlife in reacting to climate change.
- Support and develop Nature Conservation in Rushcliffe.

The role of the Rushcliffe Nature Conservation Strategy Implementation Group (RNCSIG) is to ensure that the strategy becomes more than a list of good intentions and produces an annual report on the progress made towards improving nature conservation in Rushcliffe. Progress requires the co-operation of a variety of organisations, groups and individuals, each with their own varied contributions.

2) OVERVIEW OF RUSHCLIFFE'S WILDLIFE

The Borough of Rushcliffe is largely rural, with a diverse landscape. The rivers Devon, Trent, Soar and Smite form much of the Borough's boundaries, with the Leicestershire Wolds and the Vale of Belvoir running along the southern edge of the Borough. Alluvial soils, with significant sand and gravel deposits, as at Holme Pierrepont, characterise the areas of flood plain, whilst sand and gravel deposited by glaciers lie around East Leake. Much of the soils are the slightly calcareous clays of the Mercia Mudstones, but a thin band of hydraulic limestone outcrops along the escarpment from Gotham to Bunny, with heavy boulder clay in the south-west of the Borough, whilst more calcareous Lias clays typify the extreme south-east.

As a result of this varied geology and topography, overlaid by the heavy influence of mankind over millennia, Rushcliffe contains a rich diversity of wildlife. Fragments of semi-natural habitats within the farmed landscape support plants such as cowslip and orchids, whilst otters are recolonising Rushcliffe's watercourses and badgers are widespread. There are large woodland areas on the hills above Gotham and West Leake, but most of the semi-natural woodland habitat is contained in small copses scattered across the Borough.

Small pockets of species-rich grassland are dotted around Rushcliffe, often on post-industrial sites or the limestone hill tops between Gotham and Bunny. Road verges provide a useful supplement, particularly in the south of Rushcliffe. There are no natural lakes in Rushcliffe, but excavation and gravel extraction has provided several large water features and the Grantham Canal is, in wildlife terms, currently a series of narrow lakes and ponds. Wildlife has readily colonised mineral workings and disused railway lines, whilst a wealth of species are also found in urban areas.

Many species have suffered due to modern lifestyles. Special efforts to conserve species, such as barn owls and schemes such as Environmental Stewardship are reducing these losses. Wider influences, such as climate change, will add to the pressure on our local wildlife. The principle of good stewardship demands that we must protect our natural heritage, for the sake of ourselves, our children and for the generations to come.

Whilst wildlife is found throughout Rushcliffe's 41,000 hectares, the network of Sites of Special Scientific Interest (SSSI's) covering 62 hectares and Sites of Importance for Nature Conservation (SINC's), with an area of around 2,000 hectares, represents Rushcliffe's wildlife hotspots. It is notable that whilst approximately 8% of Britain is designated as SSSI, only 0.15% of Rushcliffe is similarly designated and the coverage of SINC's is around 4.91%, making conservation effort all the more important.

3) SUCCESSES OF THE 2003 – 2010 STRATEGY

The 2003 – 2010 strategy was a formative stage in developing the protection and enhancement of Rushcliffe's wildlife resources. The first stage was forming a partnership between the organisations interested in these resources. The Rushcliffe Nature Conservation Strategy Implementation Group (RNCSIG) was set up to be this partnership in 2003 to implement the Rushcliffe Nature Conservation Strategy and consists of a range of organisations and groups with an interest in Rushcliffe's wildlife.

Successes supported by this group include:

- ✿ Creation of Local Nature Reserves at Sharphill Wood, Meadow Covert, Edwalton and The Hook, Ladybay; this work has included the writing of managements for these sites, introducing active conservation management and the establishment of 'friends of' groups involving local people in the management of these sites.
- ✿ Establishment of a wildlife meadow at Collington Common, under the Wildlife Trust's 'Blue Butterfly Scheme'.
- ✿ A project to promote the good management of land along the disused railway between Bingham and Melton, creating a wildlife corridor.
- ✿ A Rushcliffe Wildlife Ponds and Wetlands grant has been established, to date this has supported 9 projects totalling £7887
- ✿ A Rushcliffe Nature Conservation Support grant has been established to assist wildlife groups develop their work in the borough, to date this has made 10 grants totalling £1873.59
- ✿ Support from RNCSIG partners led to a study of the ecological impact of restoring The Grantham Canal and a study of the Green Infrastructure potential of the proposed Grantham Canal Trent Link being published
- ✿ Two popular gardening leaflets have been published, guiding gardeners on how to improve their gardens for wildlife
- ✿ Nottinghamshire Wildlife Trusts education officer has worked with 6 schools each year on behalf of the partnership, leading group activities and advising on improvements to school grounds for wildlife
- ✿ Volunteer nature conservation work across the borough has exceeded 23431 hours since 2004, these amount to work valuing £152,303
- ✿ An indicator of the ecological health of the borough is shown by the population of Barn Owls in the borough, Barn Owls can only survive where there is plenty of places for it to roost and plenty of wild habitat for it to hunt its prey and plenty of prey living in that habitat. The exact number of owls is not known, but the number of owls in artificial Barn Owl boxes can be used as a proxy measure. In 2002, 16 young Owls were raised in 88 Owl boxes, by 2008 this had risen to 54 owls raised in 160 Owl boxes.



Figure 3: Bunny Wood

 We should: Promote sympathetic woodland management by providing advice, by working with the Forestry Authority, Woodland Trust and the Borough Council's tree officers and using tree preservation orders for threatened valuable amenity trees. Promote new woodland planting, particularly where linked to existing woods. Promote tree wardens and develop tree-planting schemes.

3.4) Species Rich Grassland

Traditional flower-rich meadows are rare, almost 99% having been lost in the UK in the last 100 years, however, some remain along with old pastures. Roadside verges are another refuge for grassland species especially the wide verges of the old drove roads. There are four Notified Road Verges (NRV), in Rushcliffe and these receive special management. Sensitive managed graveyards are also important. Lime-rich habitats exist where there are old gypsum works and around hill tops in the Nottinghamshire Wolds. Grasslands support fauna including butterflies, common lizard, grass snake, harvest mouse and badgers.

 We should: Protect and manage remaining fragments of species-rich grassland. Encourage sympathetic management of other grassland and examine options to create/extend species rich grassland. Support the County Notified Road Verge scheme and ensure road verges receive appropriate mowing regimes and are protected from excessive winter salting.

3.5) Rivers, Standing Water and Marsh

Wetlands feature strongly in Rushcliffe, with the River Trent and its floodplains, the Grantham Canal and farm ponds providing many habitats. Wetlands support endangered species such as water voles and great crested newts. They are also important for dragonflies, wading birds and kingfishers.

 We should: Protect the remaining marshland fragments and encourage the development and management of wetland sites. Carefully consider and liaise over the future redevelopment of the Grantham Canal and its surroundings. Promote farm and garden pond creation. Work to stop the decline of water voles and to support the return of the otter. Be involved in projects such as 'On Trent'.



Figure 4: Wilwell Cutting

3.6) Hedgerows

Hedgerows both provide useful habitat and link wildlife sites. Many of the hedges in Rushcliffe date back to the Enclosure Acts of the 18th century and are made of hawthorn and elder. Older hedges exist along ancient lanes and parish boundaries.

Hedgerows can be at risk from removal or neglect; protection for hedgerows is provided by the Hedgerow Regulations.



Figure 5: Meadow Park, East Leake

 **We should: Promote conservation, replanting and appropriate management of hedgerows. Use the Hedgerow Regulations as appropriate**

3.7) Amenity Land

There are significant areas of parks, recreation grounds and school playing fields in Rushcliffe. Appropriate management can support a range of grassland plants as well as invertebrates, small mammals, foxes and birds of prey.

 **We should: Ensure all amenity land is sympathetically managed and continue to develop 'Blue Butterfly' sites.**

BIODIVERSITY ACTION PLAN (LBAP)



Biodiversity includes the variety of plants and animals around us and the places in which they live. The Rio Earth Summit in 1992 was the first international agreement to protect the planet's biodiversity. 'Biodiversity: the UK Steering Group Report' (HMSO, 1995) sets clear objectives for the conservation of biodiversity to which Local Authorities and their partners are encouraged to subscribe.

In 1998 the Nottinghamshire Biodiversity Action Group, a partnership of over 50 organisations working to protect and enhance biodiversity across Nottinghamshire, launched their local Biodiversity Action Plan (LBAP). The plan identifies rare, important and threatened habitats and species in Nottinghamshire and provides action plans for their conservation. Several of these habitats and species occur in Rushcliffe. Rushcliffe Borough Council is a signatory to the Nottinghamshire Biodiversity Action Plan and an active partner organisation within the Nottinghamshire Biodiversity Action Group (BAG).

In 2006 the NERC Act (Natural Environment and Rural Communities Act) came into force. Part of the act, known as the biodiversity duty states that 'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. The legislation is intended to raise the profile and visibility of biodiversity within public authorities and to clarify their existing commitments with regards to biodiversity. The duty should make biodiversity a natural and integral part of policy and decision making for all public bodies.

4) NOTTINGHAMSHIRE LOCAL

LBAP HABITATS FOUND IN RUSHCLIFFE

LBAP habitat	Sites
Arable field margins	Many sites
Canals	Grantham Canal
Ditches	Many sites
Eutrophic & mesotrophic standing waters (including ponds)	Wilford Claypits, Skylarks Nature Reserve, Kinoulton Marsh, Gresham Marsh, Barnstone Pits, Holme Pierrepont
Hedgerows	Many Sites
Lowland calcareous grassland	Gotham Hills Pastures
Lowland fen	Kinoulton Marsh
Lowland neutral grassland	Wilwell Cutting, Wilford Claypits, Gresham Marsh, Keyworth Meadow, Normanton Pastures, Bingham Linear Walk
Lowland wet grassland	Wilwell Cutting
Marsh and Swamp	Gresham Marsh, Kinoulton Marsh
Mixed ash-dominated woodland	Bunny Wood, Sharphill Wood, Meadow Covert, Wilford Hill Wood, West Leake Hills, Cotgrave Wood
Open Mosaic Habitats on Previously Developed Land	Cotgrave Colliery
Reedbed	Skylarks Nature Reserve
Rivers & streams	Trent, Soar, Smite, Devon, Fairham Brook, Kingston Brook
Traditional orchards	Many sites
Urban habitats	many parks and open spaces
Wet woodland	Skylarks Nature Reserve
Wood pasture and parkland	Flintham Hall, Stamford Hall

IMPORTANT LBAP SPECIES FOUND IN RUSHCLIFFE

Atlantic Salmon	Dingy & Grizzled Skippers
Autumn Crocus	Grass Snake
Barn Owl	Great Crested Newt
Bats	Harvest Mouse
Black Poplar	Otter
Corn Bunting	Slow Worm
Deptford Pink	Water Vole

NB. This list includes all LBAP species found in Rushcliffe for which there is a Species Action Plan. It is not a comprehensive list of UK BAP or LBAP species found in the borough.

We should: Identify and promote projects that contribute to the Nottinghamshire LBAP and increase awareness of the LBAP in the Borough. Monitor LBAP related works and report back to the Biodiversity Action Group. Promote LBAP species found in Rushcliffe and the habitats in which they live, for example by supporting projects, such as the Rushcliffe Barn Owl Project (RuBOP). Ensure that due weight is given to the importance of LBAP species through the development control system. Encourage the use of local provenance planting. Produce an audit of the Borough's wildlife.

For more details of Local Biodiversity Action Plan targets visit the Biodiversity Action Group's, Action for Wildlife website at www.nottsbag.org.uk In 2009 the local Biodiversity Action Group were beginning a review of the habitat action plans and the list of habitats above includes the current amended titles of these action plans. The review will continue in 2010.

5) DESIGNATED WILDLIFE SITES

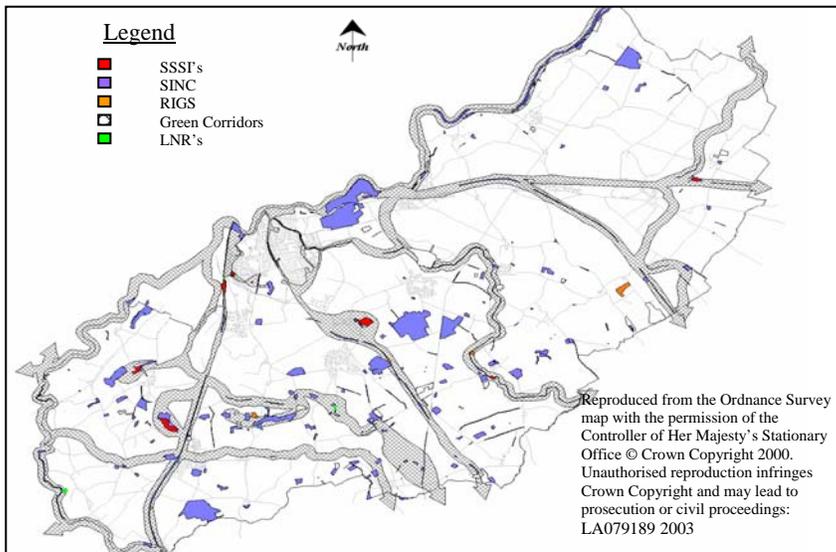


Figure 6: Protected sites in Rushcliffe

In Rushcliffe (in 2010) there are 8 Sites of Special Scientific Interest (SSSI's), 211 Sites of Importance for Nature Conservation (SINC's) and six Local Nature Reserves (LNR).

These are important sites that could not easily be restored once lost. The Countryside and Rights of Way Act 2000 imposes strong duties for Local Authorities to further the conservation and enhancement of Sites of Special Scientific Interest (SSSI). Planning Policy Statement 9 makes specific reference to the need for protection of 'Local Sites' and these 'have a fundamental role to play in meeting overall national

biodiversity targets', 'Local Sites' equate to our SINC sites.

All of these sites are important and need protecting. Targeting the areas with the greatest numbers of important sites can help to protect them, ensuring their long term survival and development.

A series of green corridors linking sensitive wildlife areas and towns and villages has been identified. Some of these sites are publicly owned and some are privately owned. See appendix 1.

<i>Sites of Importance for Nature Conservation (SINC) In Rushcliffe</i>			
Type of Habitat	Number of Sites	Total Area (hectares)	Average Size (hectares)
Grassland	90	564	6
Woodland	33	675	20
Ponds & Lakes	36	146	4
Streams, Rivers, Canals & ditches	23	178	8
Ex Industrial, including quarries	16	319	20
Fen & Marshland	8	122	13
Hedgerow	3	1.5	.5
Ruderal	2	9	4.5
Total	211	2014.5	9.5

<i>SSSI's in Rushcliffe</i>
Barnstone Railway Cutting - geology
Gotham Hill Pastures - grassland
Kinoulton Marsh - marsh
Normanton Pastures - grassland / water / water
Orston Plaster Pits - grassland
Rushcliffe Golf Course - grassland
Wilford Claypits - marsh / grassland
Wilwell Cutting - marsh / grassland

We should: Ensure protected sites are properly managed; this may require management agreements and plans, advice and grants. Identify and designate new sites. Extend existing sites to provide buffer zones and reduce isolation. Monitor sites to prevent degradation, using regulations where necessary. Review the green corridor network. Aim to create a new large reserve in Rushcliffe.

6) RUSHCLIFFE'S LANDSCAPES

Landscape Ecology

Landscape Ecology is the study of how the landscape affects species viability, of particular concern would be the ability of species to move through the landscape and the size of sites within the particular landscape.

Landscape ecology suggests the greatest value for wildlife can be gained by developing further similar habitats to those already present. Woodland planting is best concentrated into areas of existing woodland; in Rushcliffe, this would be the Nottinghamshire Wolds. In the South Nottinghamshire Farmland and the Vale of Belvoir it would be more important to improve farmland habitats by developing grasslands, farm hedgerows and margins, stubble and ponds.

Areas that allow wildlife to move through the Borough are known as green corridors. The areas thought to form good green corridors are shown in Figure 1. Using green corridor maps as a guide it should be possible to focus efforts to the best advantage.

We should: Update the Green Corridor map, clearly defining important corridors. Protect existing green corridors. Pursue opportunities to enhance the corridor network and encourage land managers to improve connections between habitat sites. Identify clusters of wildlife sites and seek to reduce fragmentation and isolation of sites.

Mature Landscapes

Areas with landscape features that have been long established tend to be better for wildlife. These areas are identified in the County Council's Mature Landscape Survey.

We should: Protect mature landscape areas as far as possible from adverse development.

Landscape Character

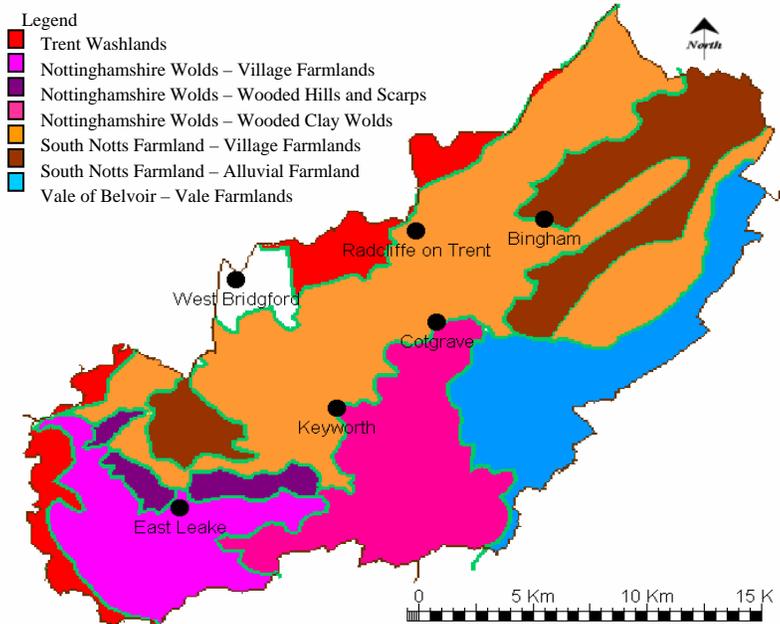


Figure 7: Simplified Regional Character of Rushcliffe's, after Notts CC, 1997

Nottinghamshire County Council produced landscape character assessments of Nottinghamshire in 1997. These Countryside Appraisals can be used to identify the key parts of our countryside and to identify the priority for nature conservation work in each area. The Borough has been divided into character areas based on its geology, topography and land use. For each area we can identify key actions.

Trent Washlands

These are the valleys formed by the River Trent and River Soar, it is an area of pebbles overlain with soils deposited by the river (alluvium). These are rich soils and have supported farming for a long time. Hedgerows and riverside

willow pollards are important features. Some pasture and meadows have survived, but arable farming has replaced the grasslands in many places. Woodlands are not common except around Kingston Hall and on the steep outcrops or bluffs on the edge of the Trent.

We should: Encourage the protection and restoration of mixed hedgerows and field margins, hedgerow and riparian trees including willow pollards. Protect pastures and meadows where they survive. Consider recreating grassland (especially wet pasture) and marsh. Protect the parkland landscape around Kingston Hall. Maintain and develop woodlands on steep bluffs and create small wet woodlands within the river valleys.

Nottinghamshire Wolds

– Village Farmlands

This is an area of good farmland, with frequent large villages. Gypsum extraction has heavily influenced this area. There are low amounts of woodland except around Stanford Hall. Strong field systems exist with improved grassland and arable farming. Kingston Brook is an important feature. Country lanes with good verges and hedgerows are noteworthy.

We should: Encourage field hedgerows and trees. Develop grasslands on gypsum. Protect woodland and veteran trees in the parkland landscape at Stanford Hall. Encourage riparian trees (especially willow pollards) and shrubs along with grassland along the Kingston Brook corridor and discourage arable farming to the brook edge.

– Wooded Hills and Farms

Woodlands, pastures and rough grass define this area. Calcareous grassland is important in areas of gypsum. Ancient Woodlands are found to the south and west of Gotham and Bunny. Hedgerows are important around fields.

We should: Maintain alternating pattern of pasture and woodland. Protect and develop pasture and rough grassland. Maintain and extend ancient woodlands, Create new native woodlands on hilltops and escarpments.

– Wooded Clay Wolds

Traditionally an area of enclosed grassland with hedgerows and trees, now often converted to arable farmland. Lanes are prominent features. Small broadleaved woodlands are common and large conifer plantations exist at Cotgrave Forest and Borders Wood. Ridge and furrow grasslands are found around Willoughby on the Wolds and Wysall.

We should: Increase broadleaved woodland cover especially on hilltops using field patterns as a guide. Look to diversify the woodland around Cotgrave. Encourage hedgerow management. Protect remaining grasslands especially ridge and furrow.

South Nottinghamshire Farmland

– Alluvial Farmland

This is the area near the rivers Smite and Devon and the area of Ruddington Moor (once an extensive area of grass moorland). This is mainly an arable area where the field structure has largely broken down, forming large expanses perhaps reminiscent of the pre-enclosure moorlands. Trees are contained in occasional copse and riparian corridors. The River Smite has been partly canalised.

We should: Seek improvements to the River Smite (re-profiling and encouraging aquatic and emergent vegetation). Improve riparian structure along the rivers Smite and Devon. Consider enlarging copse and repairing remaining hedgerows. Consider the creation of wet grassland especially within Ruddington Moor. Encourage the creation of beetle banks, game cover strips, headlands and maintenance of winter stubble on arable farmland. Encourage pond creation and management to help support wetland species.

- Village Farmland

A strong, largely arable, agricultural landscape, dominated by hedgerows. The Grantham Canal and disused railways in this area form important habitats. Parklands are found at Whatton Manor, Flintham, Tollerton, Bunny and Ruddington.

We should: Protect and develop hedgerows and hedgerow trees. Encourage the creation of beetle banks, game cover strips, headlands and winter stubble on arable farmland. Encourage ponds creation and management. Protect and enhance parkland habitats. Protect and enhance the Grantham Canal and disused railway habitats.

Vale Farmlands

An area of mixed farming, hedgerows and lanes. The Hickling area is rich in unimproved pasture, ridge and furrow and species-rich hedgerows with trees. Wooded parkland is found at Colston Bassett and Staunton. The Rivers Smite and Whipling have important riverside habitats with good trees.

We should: Promote pasture and hay meadows especially along the river edges, grass headlands, hedgerows, hedgerow trees, riparian buffer strips and trees. Encourage wood planting on escarpments. Seek improvements to the River Smite (re-profiling and encouraging aquatic and emergent vegetation). Protect and enhance parkland habitats.

7) GREEN INFRASTRUCTURE

Green Infrastructure is used to describe the land around us which have not been built on or cultivated. This may be recreational, landscape and ecological in nature, but in the same way as roads and electricity wires are called infrastructure because they benefit people, these areas can also provide a range of benefits.

The importance of Green Infrastructure (sometimes abbreviated to GI) is now better understood by planning authorities and the East Midlands Regional Assembly define GI as: A NETWORK OF MULTI - FUNCTIONAL GREENSPACE WHICH SITS WITHIN, AND CONTRIBUTES TO, THE TYPE OF HIGH QUALITY NATURAL AND BUILT ENVIRONMENT REQUIRED TO DELIVER 'SUSTAINABLE COMMUNITIES'. DELIVERING, PROTECTING AND ENHANCING THIS NETWORK REQUIRES THE CREATION OF NEW ASSETS TO LINK WITH RIVER CORRIDORS, WOODLANDS, NATURE RESERVES AND URBAN GREENSPACE AND OTHER EXISTING ASSETS. IF PROPERLY PLANNED AND MANAGED, GREEN INFRASTRUCTURE SHOULD ALSO CONTRIBUTE TO WIDER ENVIRONMENTAL INFRASTRUCTURE THROUGH LOCAL CLIMATE AND AIR QUALITY AMELIORATION, FLOODPLAIN MANAGEMENT, AND COASTAL SEA DEFENCES

Components of Green Infrastructure can include; woodlands, hedgerows, playing fields, parks, gardens, old railways, rivers and streams, ponds, allotments, cemeteries and graveyards etc. And if these are managed in an appropriate way, they can meet a range of environmental, social and economic needs and help support the natural environment.

The benefits to society potentially include improved health and mental well being, reduced crime, reduced fear of crime and antisocial behaviour, opportunities for exercise, sport, recreation and spiritual well-being, informal educational opportunities and opportunities for community involvement and cohesion. In addition these areas can help to prevent flooding, reduce air pollution, maintain economic land value and help to maintain biodiversity by providing habitats for wildlife to live and move through.

By looking at the Green Infrastructure we already have, it is possible to identify what needs to be maintained and enhanced, as well as identify where there are gaps and opportunities to improve our GI. Small size and habitat fragmentation has long been recognised as one of the major problems facing wildlife in the UK and a coherent GI strategy would help reduce the problem. The pressure for new housing developments in Rushcliffe highlights the importance of planning our GI.

We should: compile an inventory of our Green Infrastructure, develop a strategy on managing and enhancing this resource and develop projects to improve the Green Infrastructure of Rushcliffe. Work with the planning authorities and developers to ensure wildlife friendly Green Infrastructure is included in all new developments.

8) CLIMATE CHANGE

The climate of our world is changing due to man's activities and this will impact on both our society and the natural world. For example in the UK oak trees are opening their leaves up to fortnight earlier than 50 years ago, species that are dependant on oak trees which cannot adapt to this change will struggle to survive. Similarly butterflies are moving northwards, species once found only in the South of England can now be found in our area, but species that lived in the north may be forced to retreat into limited refuges with no where else to go.

We all have a responsibility to reduce our impact on the environment, but we must also help our wildlife to adapt to the changing climate. This means there needs to be a range of good quality and varied habitats for species to live in, supported by good linkages to allow movement where required – a coherent GI strategy. We must also seek to minimise the stresses on wildlife which when added to climate change could lead at the very least to local extinctions or worse. But we must also be prepared for new species to become part of Rushcliffe's biodiversity.

We should: maintain as diverse an environment as we can to support the widest opportunities for our biodiversity to survive. Increase linkages between habitats to allow movement of species. Be prepared to adapt our efforts as the climate changes. Support efforts to mitigate climate change, including the use of wildlife to act as carbon 'sinks'.

9) COMMUNITY INVOLVEMENT

Public bodies and various community organisations carry out some of the nature conservation work in the Borough, but individuals (especially landowners) carry out much of the work. It is vital to include farmers in nature conservation as they manage most of the land and there are many examples of good stewardship in Rushcliffe. Nottinghamshire Biological and Geological Records Centre (NBGRC) maintain records of survey work.

Access to nature conservation sites and the wider countryside develops awareness of our natural heritage and needs to be encouraged, but without putting too much pressure on these sites. Natural England advocates 'Access to Natural Greenspace Standards' (ANGSt). The Woodland Trust has an aspirational target that everyone should have access to a two hectare wood within 500 metres of their homes and a 20 hectare wood within 4 km.

Education, both formally (where taught) and informally (for example using information panels on nature reserves, walks and talks), helps to raise awareness of nature conservation issues. It is important to educate as widely as possible, addressing both adults and young people and by publicising conservation issues and activities locally.

Community involvement in nature is important; nature conservation work improves our natural heritage, our social wellbeing, health and economy. The Rushcliffe Community Strategy encourages community involvement. Public involvement is limited by the availability of organisers (voluntary and professional) and funding. There is great potential for more community involvement in Rushcliffe.

Friends of Groups are community groups that care for particular sites, Friends of Groups already exist for many sites in Rushcliffe.

Local Nature Reserves are one method of providing local communities with access to natural areas. These are areas designated by local authorities with public access, which are managed as protected areas for their wildlife interest.

We should: Support community involvement in nature conservation in Rushcliffe, through voluntary conservation work, wildlife surveying and awareness raising, this requires funding to be sought and training and interpretative material to be provided and activities to attract the public. Support existing 'friends of groups' and seek to develop new groups. Provide access to wildlife sites and support initiatives that care for the environment. Seek to implement Natural England's ANGSt standards. Take care that activity is carried out on sites across the whole Borough, not just popular areas. Seek to develop new Local Nature Reserves.

10) PLANNING POLICIES AND THE PROTECTION OF WILDLIFE AND HABITATS

There is major pressure at a national and regional level for significant housing development to occur along the southern edge of Nottingham, thus Rushcliffe's wildlife sites in both urban and rural areas will come under increasing pressure from development in the coming years. A degree of protection is provided by planning regulations and policies. The local planning policy documents created by the local planning authority set out where and how development will be allowed, they also identify protected areas, legally protected species and important trees, woodlands and hedgerows. These documents also include policies relating to planting schemes that emphasise appropriate local species.

It is important to ensure that where development is permitted not only are valuable sites (SSSI, SINC and LNR) protected from direct development, but that suitable mitigation is in place to buffer local sites and also to build in Green Infrastructure to reduce the threat of isolation, but also to bring wildlife into new developments.

In terms of nature conservation there are major contradictions inherent in development planning. Firstly, between the use of brownfield and greenfield sites for development. Brownfield sites can in some cases be valuable wildlife habitats (i.e. disused railways and pitheads). Green field sites maybe intensively managed arable and pasture with limited current wildlife value, however they may also have an important visual landscape role and considerable potential for wildlife habitat creation.

Similarly with the status of greenbelt, which was originally created as a mechanism to control (not prevent) urban sprawl. Assuming development will go ahead is it better to lose greenbelt along the urban fringe or allow development to leapfrog into the wider countryside? Resolving such contradictions will not be easy.

Where levels of pollution may be detrimental to wildlife, sources should be traced and if possible reduced to acceptable levels. Various organisations have specific roles in controlling levels of environmental pollution, principally the Environment Agency and Rushcliffe Borough Council.

We should: Include wildlife issues in planning policies e.g. in the Rushcliffe local development documents. Ensure planning approvals meet wildlife protection regulations. Follow good practise on planning and biodiversity, particularly compensation for habitat loss should be a last resort. Encourage developers to minimise the impact of their development and encourage eco-friendly building design. Minimise the need to use important nature conservation sites for development. Keep nature conservation on the agenda at county, regional, national and European levels. Enforce pollution regulations and support policies to reduce environmental pollution. Encourage individuals and companies to adopt safe practices. We will seek to obtain maps showing where potential opportunities exist to improve biodiversity in the area.

11) NATURE RESERVES

There are 28 sites (in 2010) in Rushcliffe that are managed as nature reserves, with an area of over 360 hectares. The majority of them are designated as SINC`s or SSSI`s and around two thirds have some form of community involvement, whether this is wardening, reserve work parties and in some cases Friends Groups. Ownership and management is very varied - privately owned, companies, Parish Councils, Nottinghamshire County Council, Nottinghamshire Wildlife Trust, Woodland Trust and Rushcliffe Borough Council - although in some case sites are owned by one organisation and managed by another. When you compare the area designated as nature reserves with the total coverage of SINC`S (2,000 hectares) or of Rushcliffe (41,000 hectares) as a whole, it is clear that the management of nature reserves, whilst important cannot be regarded in isolation – a wider Green Infrastructure linking reserves, SINC`s and SSSI`s is essential to long term sustainability.

Ideally nature reserves should be actively managed to preserve and where possible improve their wildlife value. Fundamental to good management is the existence of an up to date management plan to guide the work on the site and resolve contradictions between various requirements. The majority of these sites have reasonably recent management plans. However a management plan is only as good as the resources available to make it happen and as always such resources are thinly stretched. Some of these resources are provided by professional staff (Nottinghamshire Wildlife Trust, Rushcliffe Borough Council), but much of the work (and site management) is carried out by volunteers – although they are supported by help and advice from professional staff.

Finance can also be an issue; obtaining grant funding can be difficult and time consuming. Rushcliffe Borough Council provides small grants to provide small amounts of money, with a minimum of paperwork and fuss.

Because many reserves are set up to be reasonably accessible, they are also particularly useful in giving people formal (guided walks, or species specific studies) and informal access to wildlife.

We should: Ensure that reserves have current management plans and that sufficient resources (both financial and volunteer) are available to implement the plans.

12) NATURE CONSERVATION AIMS AND OBJECTIVES

STRATEGIC AIM: To protect and enhance Rushcliffe's wildlife resources, thereby contributing towards local and national Biodiversity Action Plan targets, mitigate the effects of climate change on wildlife and provide ready access to wildlife rich green spaces, with a particular emphasis on species rich grassland and marsh habitats, and species characteristic of the Borough. This will be achieved through a partnership of key organisations, local special interest groups and individuals.

OBJECTIVES:

1) Promote an appropriate standard of management on nature reserves (see Appendix 1) in order to maintain and enhance their biodiversity, by:

a.	Seeking to ensure that all such sites have a proper Management Plan to conserve habitats and interest of the site (Partners: NWT, RBC, PCs, Friends Groups)
b.	Seeking to ensure that all such sites have sufficient resources available to deliver the required management tasks over the long term. (Partners: NWT, RBC, PCs, Friends Groups)
c.	Encouraging local community involvement with reserve management, wardening, work parties and survey work on all appropriate sites. (Partners: NWT, RBC, Friends Groups, PCs, BTCV)

2) Promote sympathetic land management for wildlife in rural and urban areas, by:

a.	Promoting the protection and management of Rushcliffe's important wildlife sites in order to reduce loss of habitat through damage or neglect by encouraging landowners to undertake optimal management practices. (Partners: NWT, FWAG, NFU, DEFRA, RuBOP, CLA, EN)
b.	Encouraging farmers to develop sympathetic management practices and increase the take up of Agri-Environment Schemes. Target habitats include Hedgerows, Field Headlands, Ponds, Wetlands, Grassland and Woods. (Partners: FWAG, NWT, NFU, DEFRA, RuBOP, RSFG, CLA).
c.	Encouraging wildlife friendly management of corporate landscaping, public open space, school grounds and private gardens. (Partners: RBC, NCC, NWT, BW, EA + others)
d.	Supporting programmes to increase the numbers and range of barn owls, water vole and otter, grizzled skipper and other characteristic species. (Partners: NWT, RuBOP, RBC, EA, BAG)
e.	Promoting the development of Notified Road Verges where appropriate. (Partners: NCC, RBC, NWT)
f.	Promoting the use of local provenance planting (Partners : RBC, NCC, NWT)
g.	Identify and liaise with organisations whose land holdings have a significant role in nature conservation in Rushcliffe. (Partners: NWT, RNCSIG)

3) Support a continuing programme of surveying and reporting of Rushcliffe's biodiversity, by:

a.	Supporting the work of the Nottinghamshire Biological and Geological Records Centre and the Local Wildlife Sites survey and monitoring programme. (Partners: NBGRC, NWT, NCC, RBC)
b.	Supporting the various species survey programmes, as well as encouraging local initiatives to record wildlife. (Partners: NBGRC, NWT, RBC, specialist wildlife groups)
c.	Supporting the work of the Nottinghamshire Biodiversity Action Group and reporting progress against LBAP targets. (Partners: All)

4) Increase understanding of wildlife and nature conservation through raising awareness and improved access to sites, working towards Natural England's ANGSt standard, by:

a.	Exploiting opportunities to publicise nature conservation issues and promoting a range of conservation related activities around Rushcliffe. (Partners: NWT, RBC, RCC, RuBOP, NCC, BTCV, FoRCP, others)
b.	Extending wildlife education opportunities, by developing youth wildlife groups and enhancing wildlife education programmes in schools, colleges and Adult Education. (Partners: NWT, RBC, RCC + others).

c.	Promoting continued contacts at all levels amongst groups and organisations associated with nature conservation locally. (Partners: RBC, NWT, SNG and others)
d.	Promoting the recreational value of sites through a range of opportunities to visit and learn, with 50% of sites having an annual organised event or some form of trail guide. (Partners: NWT, RBC, FoRCP, PCs, SNG)
e.	Work towards a long term aim of a minimum of one Local Nature Reserve per parish. Designate 3 new LNR's by 2015 (Partners: RBC)
f.	Promote access to wildlife and countryside, specifically promoting disabled access where appropriate. (Partners: RBC, NCC)

5) Influence the impact of development on wildlife and their habitats, by:

a.	Ensuring that the nature conservation and environmental policies in the Adopted Local Plan are taken into account when considering planning applications and development briefs. No designated sites (SSSIs, SINCs or LNRs) should be lost or materially damaged through development without full mitigation. (Partners: RBC, NCC, NWT, NE, CPRE)
b.	Ensuring that nature conservation and wider countryside issues are considered during the development of the emerging local and strategic plans affecting Rushcliffe. (Partners: RBC, NCC, NWT, NE, CPRE)
c.	Minimising loss of countryside to development through appropriate Local Plan policies and looking to habitat creation schemes to compensate for lost countryside. (Partners: RBC, NCC, NE, NWT)
d.	Ensuring that opportunities are taken to benefit wildlife through the design of buildings and landscaping. (Partners: RBC, NCC, CPRE, CLA, NFU)
e.	Using Hedgerow Regulations and Tree Preservation Orders to protect important features. (Partners: RBC, NCC, NWT, CPRE)
f.	Implementing policies to reduce levels of environmental pollution. (Partners: RBC, NCC, EA, CPRE)
g.	Seeking to influence Regional, National and European decision making to promote wildlife friendly policies. (Partners: NCC, RBC, NE, NWT, CPRE, EA)

6) Target resources to reduce habitat fragmentation and contribute to landscape scale conservation, assisting wildlife in reacting to climate change:

a.	Seeking opportunities to buffer, extend and link existing nature reserves and wildlife sites through the delivery of green infrastructure. (Partners: BAG, NWT, RuBOP, RBC, NFU, CLA)
b.	Seeking opportunities for creating at least one large area for wildlife of at least 40 hectares in extent. (Partners: RNCSIG)

7) Support and develop Nature Conservation in Rushcliffe, by:

a.	Continuing the development of the Rushcliffe Nature Conservation Strategy Implementation Group (RNCSIG) to focus on delivering the strategy's objectives up to 2015. (Partners: NWT, RBC)
b.	Support and recognise the contribution of wildlife special interest groups to nature conservation in Rushcliffe (Partners: ALL)
c.	Producing an annual report on what has been achieved to progress nature conservation in Rushcliffe and the deficiencies that need to be addressed. (Partners: RNCSIG)
d.	Embed the relevant aims of the Nature Conservation Strategy in the Rushcliffe Community Strategy (Partners: RBC, NWT)
e.	Reviewing the strategy during 2015, or sooner if appropriate. (Partners: RNCSIG)

13) KEY TARGET INDICATORS

The following criteria are to be used as an indicator of how much progress has been made in the various sections of the Aims and Objectives. They are intended to be measurable and achievable, but are clearly not comprehensive.

1. % of nature reserves (as listed in Appendix 1) with current management plans. Target = 100% sites
2. Hours of practical work carried out on nature reserves by volunteers. Target = Increase year on year across the Borough
3. Increased proportion of SSSI's and SINC's managed in an appropriate manner. Target = Increase year on year from a base of 6.4% in 2009
4. % of SSSI units in favourable condition. Target = increase year on year from base of 38% in 2009
5. Number of schools with wildlife areas. Target = 60 schools by 2015
6. Number of barn owl boxes installed and available for use and number of barn owl chicks raised in boxes Target = maintain number of boxes available for use and sustain level of barn owl chicks raised
7. % of nature reserves with wildlife related public events (at least one per year). Target = 70% of sites with at least one event per year
8. Number of new Local Nature Reserves designated by 2015. Target = three new LNR's
9. No of SINC's. Target = No net loss of SINC sites
10. Area of BAP habitat created, restored or bought under active conservation management in order to link or buffer existing wildlife habitat. Target = 30 ha's grassland, 10 ha's woodland, 10 ha's wetland between 2010 and 2015

 <p>Rushcliffe Borough Council</p>	 <p>Nottinghamshire Wildlife Trust</p>
<p>The Borough Council first published a Nature Conservation Strategy in 1995 and published an updated strategy in 2003. This strategy seeks to further protect and enhance our natural environment, building on the work that has already been done. The borough council is committed to working towards the objectives in this strategy.</p> <p>The Borough is a significant landowner of open spaces in the area. This includes a number of wildlife sites (including Wilwell Cutting, Wilford Claypits, Meadow Covert, Sharpill Wood and Rushcliffe Country Park). The Borough is also the Planning Authority for the area.</p>	<p>Part of a national network of county based Wildlife Trusts, NWT exists to protect the biodiversity of the county. It is a charity with a professional staff and a lot of voluntary effort from its 11,000 members. It manages over 2,200 hectares of habitat and is a key player in many nature conservation activities across the county.</p> <p>In Rushcliffe, the Trust owns or manages 5 nature reserves. The South Notts local members group, whose activities are purely voluntary, drives much of the activity in the area. Local members manage nature reserves, organise walks and talks, monitor planning applications and are involved in a wide range of projects.</p>
<p>Rushcliffe Borough Council Civic Centre Pavilion Road West Bridgford Nottingham NG2 5FE</p> <p>(0115) 981 9911 environmentalissues@rushcliffe.gov.uk www.rushcliffe.gov.uk/natureconservation</p>	<p>Nottinghamshire Wildlife Trust The Old Ragged School Brook Street Nottingham NG1 1EA</p> <p>(0115) 958 8242 info@nottswt.co.uk www.nottinghamshirewildlife.org</p>
<p>Contact: Environmental Sustainability Officer</p>	<p>Local group website: www.southnottswildlife.org.uk</p>



Published on behalf of the Rushcliffe Nature Conservation Strategy Implementation Group

Appendix 1

Rushcliffe Nature Reserves (as at April 2010)

Sites with substantial management for nature conservation (not all are called nature reserves)

Site	Ownership (Management)	Area Ha's	Desig	Habitats	Mngmt Plan
Bingham Linear Walk	Bingham Town Council (Friends Group)	12	SINC LNR	Grass Wood	Yes
Bunny Old Wood	Nottinghamshire Wildlife Trust	16	SINC	Wood	Yes
Cotgrave Country Park	Nottinghamshire County Council (Friends Group)	60	SINC	Grass Pond Lake Wood Reedbed	Yes
Collington Common, West Bridgford	Rushcliffe Borough Council	1.4		Grass	
Fishpond Wood, Owthorpe	Privately owned	4	SINC	Grass Marsh Pond Wood	Yes
Grantham Canal	British Waterways	25	SSSI/ SINC	Pond Marsh Reedbed	
Green Line, West Bridgford	Rushcliffe Borough Council	1.4	SINC	Grass Wood	
Gresham Marsh	Environment Agency	8.8	SINC	Grass Marsh Reedbed	Yes
Keyworth Meadows	Keyworth PC (Friends Group)	1.25	SINC, LNR	Grass Pond	Yes
Holme Pierrepont Country Park	Nottinghamshire County Council	109	(part SINC)	Grass Wood Pond	
Meadow Park, East Leake	Rushcliffe Borough Council (Friends Group)	18		Grass Stream	Yes
Meadow Covert Wood	Rushcliffe Borough Council (Friends Group)	2	LNR	Wood	Yes
Orston Millennium Green	Orston PC	1		Grass Pond	
Rushcliffe Country Park	Rushcliffe Borough Council	36	SINC, LNR	Grass Wood Lake Pond Reedbed	Yes
Sharphill Wood, Edwalton	Rushcliffe Borough Council (Friends Group).	9.6	SINC, LNR	Wood	Yes
Skylarks, Holme Pierrepont	TARMAC (Notts Wildlife Trust)	11	SINC	Grass Lake Wood Reedbed	Yes
Springdale Wood, East Bridgford.	Woodland Trust	1.4		Wood	Yes
Stone Pit Wood	Rushcliffe Scout District	3.1	SINC	Wood Grass	

Sutton Bonington Meadow	Sutton Bonington Parish Council	2.5	LNR	Grass Wood	Yes
The Hook, Lady Bay	Rushcliffe Borough Council (Friends Group)	15	LNR	Grass Stream	Yes
Upper Saxondale Community Nature Reserve	Upper Saxondale Resident Association	3.2		Grass	
Wilford Claypits	Rushcliffe Borough Council (Notts Wildlife Trust)	4.3	SSSI/ SINC	Pond Marsh Grass Wood Reedbed	Yes
Wilford Hill Wood	Private (Notts Wildlife Trust)	7.8	SINC	Wood	Yes
Willoughby Wood	Woodland Trust	2.5		Wood	Yes
Wilwell Farm Cutting	Rushcliffe Borough Council (Notts Wildlife Trust on 99 year lease)	8	SSSI, LNR	Grass Marsh Wood Reedbed	Yes
Notified Roadside Verges x 4	Nottinghamshire County Council		SINC	Grass	Yes

Designation

SSSI Site of Special Scientific Interest

SINC Site of Importance for Nature Conservation

LNR Local Nature Reserve

Habitat (significant areas)

Grass grassland habitat including species rich

Wood woodland including scrub

Pond, Lake, Stream, Reedbed and Marsh as described