

Watnall Green Management Plan 2011 - 2015



Prepared by Nottinghamshire Wildlife Trust for Broxtowe Borough Council



Broxtowe
Borough
COUNCIL



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INTRODUCTION

This management plan was produced by Nottinghamshire Wildlife Trust on behalf of, Broxtowe Borough Council. The management proposals contained within this plan have been agreed in consultation with the representatives of Broxtowe Borough Council.

Local Nature Reserve (LNR) status will be sought for Watnall Green during the period of this plan. LNR status will not only protect the area's habitats and wildlife from development and damaging operations but will also increase people's awareness of their environment and issues relating to the site and its long term management. It will be a place where children can learn about nature, and the local community can become involved in the management of their natural environment.

Local Nature Reserves are protected open green spaces for local people, which are designated by councils after guidance from Natural England.

All the Local Nature Reserves within the district of Broxtowe will have a town centre or urban fringe location. Although the sites have high wildlife content, the range and types of species are limited due to their location and previous management techniques, however the implementation of management plans focussing on improving the nature conservation value of a site will enhance the sites biodiversity and increase its recreation and educational resource. Urban based sites often contain archaeological heritage features, which are an important part of the area's rich history and provide excellent opportunities for local people to learn about and preserve their local history. Local Nature Reserves also provide valuable amenity, recreation and educational opportunities to communities with limited access to open green spaces.

The production and implementation of a management plan demonstrates a commitment by the local authority and the local community to manage the area for the benefit of wildlife, local communities and schools and aims to implement 5 main management objectives:

- Maintain and enhance the habitat types and species present
- Combine habitat enhancement and management with education, recreation and access provision
- Encourage public understanding and awareness of issues relating to the site
- Conserve and interpret the archaeological and historical elements on the site
- Monitor effects of management on the wildlife on the site

The purpose of the Management Plans is to describe each site and to decide what prescriptions or actions are required, by whom and by what date, so that the sites can be improved in line with the management objectives.

Public consultation and support for the designation of Local Nature Reserves is an important element of the designation process. We have therefore tried to keep this Management Plan short and simple and easy to understand to encourage community feedback and engagement. Where local volunteering, enthusiasm and ideas for improving our local environment are developed, we will adjust the management plan accordingly.

ROLES AND RESPONSIBILITIES OF PARTNER ORGANISATIONS

i Broxtowe Borough Council

Section 21 of the National Parks and Access to the Countryside Act 1949, gives principal local authorities the power to acquire, declare and manage nature reserves. When using these powers, local authorities must consult with Natural England.

The designation of a Local Nature Reserve means that the local authority accepts a commitment to manage the land as a nature reserve and to protect it from inappropriate uses or development.

Broxtowe Borough Council will oversee management of the sites and will undertake a strategic role in bringing interested partners together through a local Friends group.

Broxtowe Borough Council will lead on a review of current operational practices in partnership with Nottinghamshire Wildlife Trust and make changes to support habitats, where this is practical.

As landowner of Local Nature Reserves, Broxtowe Borough Council has a duty of reasonable care to ensure people's safety.

Broxtowe Borough Council is keen to support partners who can commission and/or undertake site work to enhance and create wildlife and habitats as laid out in the management plan.

Where Friends Groups, community, voluntary or business organisations wish to carry out independent events or work on Local Nature Reserves, the Council requires a signed indemnity form which provides proof of :-

- Public Liability Insurance to a value of at least £2 million
- A Risk Assessment for each activity held on the site

Broxtowe Borough Council wishes to encourage responsible use of their green open spaces so will assist community or volunteer groups where possible in meeting this requirement.

For more information on Broxtowe Borough Council please go to www.broxtowe.gov.uk .

ii Natural England

Natural England is government agency whose overall objective is to maintain and enrich the characteristic wildlife and natural features that comprise England's natural heritage. Local Nature Reserves are important to help meet this objective.

Natural England believes that local authorities should consider the provision of natural areas as part of a balanced policy to ensure that local communities have access to an appropriate mix of greenspaces providing for a range of recreational needs. Natural England recommends that provision should be made of at least 2ha of accessible natural greenspace per 1000 population according to a system of tiers into which sites of different sizes fit:

- no person should live more than 300m from their nearest area of natural greenspace;
- there should be at least one accessible 20ha site within 2km from home;
- there should be one accessible 100ha site within 5km;
- there should be one accessible 500ha site within 10km.

Broxtowe Borough Council is working towards these targets.

For more information on LNRs and Natural England please go to www.naturalengland.org.uk.

iii Nottinghamshire Wildlife Trust

Nottinghamshire Wildlife Trust is the largest charitable environmental organisation in Nottinghamshire. The Trust works to promote nature conservation through the work of its officers and volunteers and works closely with other organisations and communities throughout Nottinghamshire to maintain and enhance biodiversity. The Trust is committed to supporting projects that facilitate participation of local communities in improving their local environment and quality of life including:-

- Encourage the participation of our membership through the local group, in the community participation and management of the Local Nature Reserves.
- Promoting Local Nature Reserves as an important resource for the improvement of the quality of life for local communities to ensure social, health and environmental well-being.
- Providing high quality ecological advice via our Conservation Policy & Planning team to local authorities and friends of groups of local nature reserves.
- Sharing our experience as the manager of 68 nature reserves and over 1200ha of land, with local authorities and communities.
- Supporting efforts to identify funds and mechanisms to continue delivery of both environmental/conservation restoration and management works on, and community engagement with, LNRs.

For more information on the Nottinghamshire Wildlife Trust go to www.nottinghamshirewildlife.org.uk/

iv Local Friends Groups

It is vital to encourage and support the local Friends Groups, interested schools and community groups for each Local Nature Reserve.

The role of local friends groups can include:-

- Information on what site improvements are most important for local people
- Assisting in species and habitat monitoring
- Raising awareness and public support for Local Nature Reserves
- Carrying out practical management tasks on sites

v Environmental Organisations

Environmental organisations are taking a lead role in the borough of Broxtowe to improve wildlife habitats. The Nottinghamshire Biodiversity Action Group has the responsibility for overseeing and monitoring the Nottinghamshire target habitats and species.

vi Local Businesses

Local businesses are to be invited to contribute to delivery of the Local Nature Reserve management plan, which could include supporting the Friends Group on volunteering days or providing technical or other assistance with enhancing the site for nature conservation.

PART 1: DESCRIPTION

1.1 Location

Watnall Green is located in Watnall in the Broxtowe Borough of Nottinghamshire (Vice County 56) (see Appendix 1 for location map). The site is in a residential area and is bordered by Trough Road, Holly Road, Deeley Close and Stannier Way. The centre of the site can be located at grid reference SK501 455.

The reserve lies within Natural England's Natural Area 23, 'Southern Magnesium Limestone', details of this Natural Area can be accessed at http://www.naturalareas.naturalengland.org.uk/Science/natural/NA_Details.asp?N=&R=3&NA_Id=23

1.2 Map Coverage

Ordnance Survey Landranger map no.129 (1:50 000 scale) & Ordnance Survey Explorer map no. 260 (1:25 000 scale).

1.3 Owner

Watnall Green is solely owned by Broxtowe Borough Council.

1.4 Size

Watnall Green is 1.9 hectares

1.5 Soil and geology

The soils are shallow, locally brashy, well drained calcareous fine loamy soils over limestone. There are also some deeper calcareous soils in colluvium (Soil Survey of England and Wales (1983)).

The underlying geology is magnesium limestone.(Geological survey of England and Wales Sheet No. 125 Derby (1963); & Nottinghamshire sheet 17NE (1921))

1.6 Aspect, topography and altitude

The site aspect is almost level sloping very gently from west to east. The topography of the site is flat and the site lies approximately 119 metres (390 feet) above sea level.

1.7 Access

See Appendix 4 for the site boundary and habitat compartment plan.

The site is surrounded by residential roads and pavements and has several pedestrian access points – two from Stannier Way, one from Holly Road and two from Deeley Close. The main path running through the site runs from Trough Road

to Stannier Way and is crushed gravel surfaced. Within the site there are wide grass rides cut through the long grass for access. The only vehicular access point is off Trough Road through a chained and locked five bar gate. Greasley footpath 23 runs through the site.

1.8 Surrounding land use

Watnall Green's immediate surrounded land use is residential housing and roads on all sides. The built up area of Watnall is small compared to the larger urban area of Kimberley to the south (to which it is joined) and the wider surrounding land use is predominantly rural in nature with open agricultural land as close as 250m to the north east of the site.

Kimberley Cutting, a site of Special scientific interest (SSSI) is located only 150m to the south. Nearby Sites of Importance for Nature Conservation (SINC) include Watnall Wood (SINC Ref 2/2), Watnall Bank (SINC Ref 1/103) approximately 650m to the north west and Watnall Meadow (SINC Ref 2/318) approximately 400m to the north.

1.9 Site Description

Watnall Green occupies 1.9 hectares of land which would once have been part of the open countryside. The site comprises of four grassland areas, is separated by three internal hedgerows is surrounded by a managed hedgerow. (See Appendix 4)

There are two small grassed compartments (compartments 1 & 4) at the far north and north east of the site which are the least botanically diverse of the whole site. Compartment 1 is cut 12 times per year. The two main compartments (compartments 2 & 3) are amenity mown around the edges and diagonally through the middle. The edges are cut to provide circular walking routes and the central areas are cut to create amenity areas for active recreation. The remaining parts of these areas are suffering from a lack of management. These areas do not appear to have been mown over the last few years and so have become rank and are losing diversity as more robust species such as perennial rye grass, cow parsley and hogweed out compete the more desirable flower and grass species.

The grassland is classified as unimproved neutral grassland and is an important habitat within the county. This is a target habitat in the Nottinghamshire Local Biodiversity Action Plan. For more detailed information on this habitat can be accessed at

<http://www.nottsbaq.org.uk/pdfs/UnimprovedneutralgrasslandHAPversion2009.pdf>

Hedgerow A has been hard cut to approximately 1.2m (4ft) in height and appears to be maintained at this height. Hedgerow B contains large unmanaged and overly mature hedgerow shrubs which are approximately 6m (20ft) in height and covered in ivy. Hedgerow C runs across the whole site from west to east is fragmented and has had no recent management. It contains a single sycamore tree and is overly mature at approximately 4.5m (15ft) in height. The whole site is enclosed by a more recently planted hedgerow of varying structural quality. This hedgerow is managed and ranges in height between from 1.8 to 2.4m (6 to 8ft). New hedgerow plants have been planted along parts of the boundary with Deeley Close to the north of compartment 4.

The three internal hedgerows all appear on Sanderson's Map of 1845 (See Appendix 2). Ancient hedgerows are important in the county and are a target habitat in the Nottinghamshire Local Biodiversity Action Plan. For more detailed information on this habitat can be accessed at

<http://www.nottsbaq.org.uk/pdfs/HedgerowsHAPversion2009.pdf>

The overly mature nature of much of the hedgerows and the current management regime of the remaining hedgerows may be reducing the value to wildlife on the site. Implementation of this management plan should increase diversity of species and vegetative structure throughout the site.

The site is well used by the local community for dog walking and informal recreational pursuits and two dog littering bins are present. There are also a small number of planted trees in the south east corner of the site one of which was planted to commemorate the 30th Anniversary of Watnall Pre-School in 2008.

1.10 Statutory Designations

There are no statutory designations on this reserve.

It is proposed to seek designation as a Local Nature Reserve (LNR) in the near future.

LNR status applies to land of at least local wildlife interest, and allows the local authority (which must have close involvement through ownership or written agreement) to protect that interest through creation of special bye-laws. LNRs are usually close to or within urban areas and provide considerable opportunities for introducing large numbers of people to sustainable enjoyment of the countryside.

1.11 Non-statutory Designations

The site is a designated Site of Importance for Nature Conservation (SINC) known as Holly Road Grassland (reference 2/1097) notable for the presence of Meadow Saxifrage (*Saxifraga granulata*). This information was obtained from the Nottinghamshire Biological & Geological Records Centre. More information about SINC's can be found at <http://www.nottinghamshire.gov.uk/sincleaflet.pdf> .

PART 2: EVALUATION & OBJECTIVES

2.1 Evaluation of site features (Ratcliffe's criteria)

Site evaluation is carried out through a long established and widely accepted method of determining the nature conservation value of a site. This method is known as the 'Ratcliffe Criteria' (Ratcliffe, 1977). The Ratcliffe Criteria provide a standardised and objective way of assessing the value of a site using the attributes of Size, Naturalness, Representativeness, Rarity, Diversity, Position, History, Fragility, Potential, Value and Intrinsic Appeal.

2.1.1 Size

The reserve is approximately 2 hectares in size. There are 236 metres of internal ancient hedgerow and approximately 480 metres of managed boundary hedgerow.

Although this is not a large area of land to be managed for conservation the proposed change of management will increase biodiversity in both the meadow areas and within all of the hedgerows.

2.1.2 Diversity

The reserve contains two main habitats:

- ✓ grassland
- ✓ hedgerows

These habitats currently have poor species and structural diversity due to a lack of management in recent years. As a result the number of faunal species that the habitats can support is limited. The diversity of each habitat will be increased as follows.

Grassland - It is intended to increase the botanical diversity of the grassland through the introduction of an annual mowing regime which will introduce the cutting of all grassland areas in September and the removal of the arisings i.e. cut grass. Over time this will reduce the amount of nutrient in the soils supporting the grassed areas, which favours less robust meadow species of flower and grass and allows them to compete with the more robust species currently dominating the sward. (See Appendix 6 for a present species list).

A 1.5 metre buffer of long grass will be left between the mown grass paths and the hedgerows to provide overwintering habitat for birds, mammals and insects. This will also provide structural diversity as it will create three lengths of grass within the area. Small sections of the 1.5 metre buffer strip will require cutting / strimming during February of each year (before the bird breeding season) on a rotational basis, to prevent further scrub encroachment into grassland areas. These grassland areas, once established, will attract and support increased numbers of insects such as butterflies and hoverflies, which in turn will attract other species such as birds and bats to feed upon them.

Internal hedgerows – These contain mainly hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), holly (*Ilex aquifolium*) and blackthorn (*Prunus spinosa*). The majority of the existing internal hedgerows are unmanaged and overly mature and have therefore become 'gappy' in places.

In their current condition most of the hedgerows support few species of bird, mammal and insect and are declining in condition as well as increasing the current unkempt look of the site. It is therefore proposed to implement a programme of copparding (cutting back) or laying to reinvigorate and planting up of gaps within the hedges with species characteristic of the area but which are not currently found in the hedgerows. Sections of hedgerow will be copparded to different heights or will be layed over a number of years to increase the diversity of heights of hedgerow as the programme progresses each year. This will afford the site a more managed and 'reserve' feel and will increase the number of species found within the hedgerows.

Boundary Hedgerow - The entire site has a hedgerow boundary ranging from recently planted whips of 1m (3ft) high in the north east of the site to hedgerows of 2.5 (8ft) metres in the far north of the site. Species found in this hedgerow include hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), holly (*Ilex aquifolium*), blackthorn (*Prunus spinosa*) and field maple (*Acer campstre*). Additional species found in the newly planted hedgerow additionally include dogwood (*Cornus sanguinea*), guelder rose (*Viburnum opulus*) and wild privet (*Ligustrum vulgare*). Although these hedgerows are currently managed the present cutting regime has created thin hedgerow width with a horizontal cut along the top. This reduces the condition of the hedgerow for wildlife as this creates virtually no cover for birds or mammals and reduces biodiversity. It is therefore proposed to implement a new cutting regime wherever possible to use a diagonal cut to produce an "▲" shape profile instead of the present "■". This will allow the hedges to increase in width, reinvigorate and produce growth from the bottom which will in turn provide more cover for wildlife and increase biodiversity.

2.1.3 Naturalness

The site is a remnant of a larger area which had previously been designated as Holly Road Grassland, a Site of Importance for Nature Conservation (SINC). It appears to have been enhanced with boundary hedgerows and by footpaths and amenity areas for the use of the local community. This is associated with the development of land around for housing.

2.1.4 Rarity

The habitats on site are both important county level and both have habitat action plans within the Nottinghamshire Biodiversity Action Plan. Meadow Saxifrage (*Saxifraga granulata*) is a notable species present within the Holly Road Grassland SINC when last surveyed by the Nottinghamshire Biological & Geological Records Centre in 2003. This plant is listed in the Nottinghamshire Biodiversity Action Plan as a species of conservation concern in Nottinghamshire.

An initial survey to identify floral species has been carried out for this management plan although it should not be considered a comprehensive list of the vegetative species on site. Further surveys and ongoing monitoring are recommended within this plan.

2.1.5 Fragility

The reserve does not support any fragile habitats i.e. those likely to be destroyed by nutrient or pollution input, changes in hydrology or increases in

disturbance for example. The predominant threat to the reserves resource at present is a lack of management but this will merely result in a further decline in diversity it would not destroy the reserve.

2.1.6 Typicalness

The site is characteristic of urban or semi-urban reserves and contains habitats typically found in man-made natural open green spaces.

2.1.7 Recorded history

The reserve would have been part of the surrounding agricultural land in recent history (see Sanderson map of 1835 Appendix 2) and appears to have been made up of small fields or paddocks. Encroaching housing developments have altered the use of the land in recent years to public open space and has, along with other developments in the locality, increased the pressure on this area of land.

2.1.8 Position in an ecological/geographical unit

Although the site is completely surrounded by residential housing it is an important conservation and local community resource in its own right. Connectivity to rural areas is restricted, however increasing the diversity of the reserve and therefore the number of species it is able to support will enhance the sites position in the wider ecological unit.

2.1.9 Potential value

With appropriate management, Watnall Green has great potential value as a recreational, nature conservation and educational resource.

The reserve has great recreational and educational value which could be enhanced through the provision of interpretation material identifying habitats, species and individual plants of interest, in addition to the management practices used throughout the site. Engaging local communities in addressing issues relating to this site and the local area should promote a culture of involvement and ownership in the site and increased interest and knowledge about the local natural environment promoting heightened awareness of damaging and inappropriate behaviour. Local community involvement in the site will allow the opportunity to train local people in practical management of the site, faunal and floral surveying techniques and running a Friends Group.

The site also has potential as an educational resource and links should be fostered with schools, colleges and local community groups to promote the sites potential for formal and informal education. The reserve could be used as an outside classroom by students to learn about a range of topics from art, history and geology as well as environmental topics.

The site is also an ideal area to provide life long education in the form of training for local volunteers in practical conservation work, guided walks, open days, and participation in survey events.

Further ecological potential could be realised through positive management of the habitats contained within this site. An increase in the biodiversity in the site has the potential to increase the biodiversity in the wider landscape.

2.1.10 Intrinsic appeal

The sites intrinsic appeal lies in its resource to the local community as a valuable recreational resource as well as providing the opportunity to experience nature. It is very much a gateway to the surrounding countryside. The hedgerows provide some screening to the adjacent housing development giving the feeling of seclusion. This aspect should be further enhanced through this plan.

The area provides a valuable local recreational green space that local people can enjoy without the need for transport provision to reach it. It is large enough to ensure that short walks can be taken around the site and the floral and structural diversity provides recreational and wildlife interest. With further enhancement, wildlife watching will be a worthwhile activity.

As a residential green space within a new residential development there have been suggestions that a children's play area should be introduced on to the site. If it was to take place it would be located in a central position close to the main surfaced path on an area of frequently mown grass.

2.2 Objectives

- Ensure that Watnall Green is a safe environment for recreational uses
- Improve appearance and encourage public understanding and awareness of issues relating to the site
- Maintain and enhance the habitat types and species present
- Combine habitat enhancement and management with education, recreation and access provision
- Conserve and interpret any archaeological and historical elements on the site
- Monitor effects of management on the wildlife on the site
- Set up a 'Friends of Watnall Green' group

2.3 Factors Influencing Management

- Safety - the entire site is accessible at all times, therefore in the interest of public safety, all possible measures should be taken to ensure public safety whilst work is being carried out, including closing paths
- Community involvement - local community and interest groups should be involved in and consulted upon the practical and strategic management of the reserve at every possible opportunity.

Watnall Green (proposed) Local Nature Reserve

- Funding - for the management identified cannot be guaranteed for the full term of the plan. It may therefore be necessary for some tasks to be rolled over into subsequent years, to be completed when funding becomes available or for grant funding to be raised for specific projects. It may also be necessary for the organisations proposed to undertake the work to change, depending on current partnership arrangements.
- Legal obligations - work likely to cause disturbance to breeding birds i.e. felling and scrub clearance cannot be undertaken during the bird-breeding season (March to September). Therefore all felling and scrub clearance must be undertaken during the autumn and winter as it is an offence to disturb any wild bird (with the exception of pest species) while it is tending a nest containing eggs or chicks, until the chicks have *successfully* fledged. To do so would be a criminal offence under The Wildlife & Countryside Act 1981.
- Protected species - mature trees identified for felling which are likely to provide roosting opportunities for bats should be surveyed by a licensed bat worker prior to felling. All species of British bat plus their roosting sites are protected by The Wildlife & Countryside Act 1981, the CROW Act 2000 and the Conservation (Natural Habitats, &c.) Regulations 1994.
- Management - annual or bi-annual meetings regarding the implementation of the management plan for the site are required to identify work programme and schedule of works. Meetings should involve Broxtowe Borough Council, Notts Wildlife Trust, BTCV, contractors and anyone else likely to carry out work on site.
- Only native species characteristic of the area should be introduced to the reserve.

2.4 Management proposals

- 2.4.1 Install Reserve Signs and interpretation boards at entrances as funding becomes available
- 2.4.2 Carry out regular litter picking events and clear any fly tipping as soon as possible.
- 2.4.3 Continue to review the current mowing regime but continue with the current programme until such time as it becomes economically viable to change to an annual cut in September with removal of the arisings (cuttings).
- 2.4.4 Continue to mow paths around and through the meadow areas including the existing paths through parts of hedgerow C. This is to allow easy access and maintain a managed look to the reserve.
- 2.4.5 Continue to mow defined areas of amenity grassland within compartments 1, 2 and 3 up to 12 cuts per year to provide spaces for active recreation.
- 2.4.6 Maintain a buffer strip of 1.5 metres at all grassland / hedgerow interfaces to provide winter habitat for insects, small mammals and foraging for birds.

- 2.4.7 Strim or flail small sections of the 1.5 metre buffer strip between grassland and hedgerow on a five-year rotation during February.
- 2.4.8 Implement a new cutting regime for the internal side of the boundary hedgerow to use a diagonal cut instead of the present vertical cut. This will allow the hedges to increase in width at the base, reinvigorate and produce growth from the bottom which will in turn provide more cover for wildlife and increase biodiversity. The external side of this hedgerow will need to be cut vertically in the existing way for safety reasons.
- 2.4.9 Implement a new cutting regime for hedgerow A to use a diagonal cut to produce a “▲” shape profile instead of the present “■”. Hedgerow B to be untouched during the management plan period as it provides important bat and bird roosting habitat. Implement a programme of laying or copparding internal hedgerow C to reinvigorate it, in addition to planting up gaps within the hedgerow.
- 2.4.10 Gap up hedgerow C where appropriate with native species characteristic of the area (see appendix 5 for suggested species)
- 2.4.11 Remove Sycamore from Hedgerow C. This non native species will reduce light and restrict growth of the surrounding hawthorn.
- 2.4.12 Remove bindweed by hand from around the existing new boundary hedgerow whips to the north of hedgerow C1, alongside Deeley Close. This will enable the hedgerow saplings to grow unimpeded.
- 2.4.13 Erect bat and bird boxes around the site as appropriate.
- 2.4.14 Carry out botanical and bird surveys to collect baseline data for to allow monitoring of the effects of management proposals on biodiversity.
- 2.4.15 Creation of a copse in areas 1 and 4, and hedgerow tree planting around the site. Although the whole of the site is a SINCR for its botanical interest, areas 1 and 4 have low botanical quality and therefore tree planting in these areas is considered acceptable.
- 2.4.16 Initiate and support a Friends of Group to oversee and participate in management and events on both Watnall Green and Watnall Spinney to monitor species and habitats on both sites.

PART 3: MANAGEMENT DETAILS

3.1 Management Projects and Prescriptions

Ref. No.	Project Title	Prescription
3.1.1	Install Reserve Signs	<ul style="list-style-type: none"> Reserve signs should be installed at key entrances declaring the status of the open green space and the bye laws adopted as part of the LNR process. Other information could be made available on these boards such as contact details for Friends Group and Broxtowe BC contact for LNRs. When funding becomes available, interpretation panels should be installed highlighting the habitats on site and wildlife that may be seen.
3.1.2	Carry out litter picks and remove any fly tipping	<ul style="list-style-type: none"> Community led litter picks should be carried out biannually or more frequently if there is the need. The litter picks should be co-ordinated and should be supported by Broxtowe BC by the removal of collected litter, as quickly as possible The reporting of any fly tipping incidents by the local community (contact details on reserve board) should be encouraged. Broxtowe BC should ensure that the response to fly tipping reports should be swift to promote a situation of zero tolerance and pride in the site. Remove litter from within hedgerows wherever possible but particularly before copparding in these areas
3.1.3	Continue to review grass mowing regime	<ul style="list-style-type: none"> All main grass areas to remain in the current cutting regime until it becomes economically viable to change to an annual cut in September with arisings removed. A 1.5 metre buffer strip between the grassland and the hedgerows should be left uncut to provide overwintering habitat for insects, small mammals and a seed source for birds. The area immediately around the trees to the south east of compartment 3 should also be left uncut (1.5 metres) to provide overwintering habitat for insects, small mammals and a seed source for birds.
3.1.4	Regularly mow grass paths and amenity area	<ul style="list-style-type: none"> Continue to mow paths around and through the meadow areas (including the existing paths through parts of hedgerow C) on a regular basis to maintain easy access and promote a 'managed' feel to the grasslands and the site in general. Continue to mow compartment 1 & 4 and selected areas of compartment 3 and 4 as an amenity grass area.
3.1.5	Strim or flail small sections of the 1.5 metre buffer strip	<ul style="list-style-type: none"> Strim or flail 1/5th of the buffer strip between grassland and hedgerow each year to rejuvenate grassland and prevent further scrub encroachment. It should be possible to dispose of the arisings from this cut into the bottom of the hedgerows

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3.1.6	Implement new cutting regime for boundary hedgerows	<ul style="list-style-type: none"> • Use of a diagonal cut instead of the present vertical cut on the internal side of the hedge. • A vertical cut on the road side of the hedge should be continued for the safety reasons.
3.1.7	New management regime for hedgerows A,B & C	<ul style="list-style-type: none"> • Use of an annual diagonal cut on hedgerow A to produce a “▲” shape hedge profile instead of the present “■”. • Hedgerow B to remain unmanaged within this 5 year plan • Implement laying regime of hedgerow C in sections as prescribed in Annual Work Plan • Each section C1, C2, C3 and C4 to be layed in each of years 1,2,3 and 4 • Ongoing cutting of Hedgerow C sections once layed should start after the end of this 5 year plan annually in the same prescribed way that hedgerow A is to be cut. (See above)
3.1.8	Gap up hedgerow C	<ul style="list-style-type: none"> • Areas along hedgerows C that are found to be excessively ‘gappy’ after being layed should be gapped up using species detailed in appendix 5 • Alternatively, local school children could grow shrubs for use on the reserve from seeds and berries sourced from the site. This would be a good way of engaging local schools and children in activities on the site and will provide educational as well as practical experience. • Whips planted into hedgerows should be 50cm apart in double rows and should be protected with a cane and spiral guard. If however, it is felt that they will become targets for vandalism it may be advisable to plant whips without protection and run the risk of rabbit grazing. • Grass cuttings or wood chippings could be placed around the base of newly planted whips as a mulch to prevent moisture loss and weed growth • Check whips over the next 3 years and replace dead ones
3.1.9	Remove Sycamore in Hedgerow C	<ul style="list-style-type: none"> • Single sycamore to be felled with a chainsaw by a suitably qualified person. • Remaining stumps should be treated with a herbicide such as Garlon 4 to prevent regrowth. • Brash could be piled to create habitat piles or if this is thought to be a fire risk, brash could be chipped or removed off site. • Removal will create light so that the newly copparded hedgerow can quickly reinvigorate. • Other tall hawthorn shrubs will be left uncopparded to give vertical structure elsewhere along hedgerow C.
3.1.10	Remove Bindweed around existing hedgerow saplings	<ul style="list-style-type: none"> • Remove Bindweed along new boundary hedgerow saplings. • This will increase light around the stems and enable the hedgerow saplings to establish.
3.1.11	Erect bat and bird boxes	<ul style="list-style-type: none"> • Approach Nottinghamshire Wildlife Trust for guidance on purchasing and locating bat and bird boxes within the site.

Watnall Green (proposed) Local Nature Reserve

3.1.12	Undertake botanical and insect surveys	<ul style="list-style-type: none"> • Carry out botanical and insect surveys in spring / summer 2011 to collect baseline data. • Repeat surveys in year 5 of the plan to assess the impact of the plan on biodiversity and to inform the next management plan.
3.1.13	Creation of a copse in Areas 1 & 4, and hedgerow tree planting around the site	<ul style="list-style-type: none"> • Use tree species that are characteristic of the Magnesian Limestone Ridge landscape character area (detailed in appendix 5)
3.1.14	Establish and support a Friends Group	<ul style="list-style-type: none"> • Initiate and support a Friends of Group to oversee and participate in management and events on both Watnall Spinney and Watnall Green • Encourage the local community through the Friends Group to record species and habitats on both sites to monitor the effects of management

3.2 Five Year Work Plan

Reference Number	Prescription	Years				
		1	2	3	4	5
		2011	2012	2013	2014	2015
3.1.1	Install reserve signs	1		1		
3.1.2	Carry out litter picks and remove fly tipping	1	1	1	1	1
3.1.3	Review grass mowing regime	1	1	1	1	1
3.1.4	Regularly mow grass paths and amenity area	1	1	1	1	1
3.1.5	Strim small sections of the 1.5 metre buffer strip		2	2	2	2
3.1.6	Implement new cutting regime for boundary hedgerows	1	1	1	1	1
3.1.7	New management regime for hedgerows A,B & C	1	1	1	1	1
3.1.8	Gap up hedgerow C	1	1	1	1	
3.1.9	Remove Sycamore in Hedgerow C			1		
3.1.10	Remove Bindweed around hedgerow saplings	1	1	1	1	1
3.1.11	Erect bat and bird boxes	1	1			
3.1.12	Undertake botanical, insect surveys	1				1
3.1.13	Tree planting in Area 1 & 4, and within hedgerows	1	1	1	1	
3.1.14	Establish and support a Friends Group	1	1	1	1	1

Priority - 1 is high, 3 is low

**3.3 Annual Work Plan
Year 1 – 2011**

Ref No.	Priority (1-3)	Compartment / Prescription Detail	Season (Sp/Su /Au/Wi)	Who (contractor, Gedling BC, volunteer group)
3.1.1	1	<ul style="list-style-type: none"> • Install updated reserve signs / Interpretation panels at entrances to site from Holly Road and Trough Road. Smaller reserve signs on other entrances if possible 	Sp / Su / Au / Wi	Broxtowe Borough Council
3.1.2	1	<ul style="list-style-type: none"> • Litter picks and fly tipping removal 	Sp / Su / Au / Wi	Friends of Group / Broxtowe Borough Council
3.1.3	1	<ul style="list-style-type: none"> • Cut all grass within current regime (except buffer strip) 	Su	Broxtowe Borough Council / Contractor
3.1.4	1	<ul style="list-style-type: none"> • Regularly mow grass paths and amenity areas 	Sp / Su / Au	Broxtowe Borough Council
3.1.6	1	<ul style="list-style-type: none"> • Use of an annual diagonal cut on the internal side of the boundary hedgerow. 	Wi	Broxtowe Borough Council
3.1.7	1	<ul style="list-style-type: none"> • Use of an annual diagonal cut on hedgerow A. Cut to a height of 1.8 metres (6ft) and to produce a width of 2 metres at the base. (Only one side to be cut each year) • Lay hedgerow C1. Ongoing cutting regime after this 5 year plan should be an annual diagonal cut. (Only one side to be cut each year) • Retention of large hawthorn tree on the far eastern edge of hedgerow C1 as a hedgerow tree. 	Wi	Broxtowe Borough Council / Contractor
3.1.8	1	<ul style="list-style-type: none"> • After laying gap up within hedgerow C1 and also along a line east of the hawthorn tree to meet up with the boundary hedge. (this may have to wait if whips are to be grown from seed sourced from site) 	Wi	F O Group
3.1.10	1	<ul style="list-style-type: none"> • Remove Bindweed around hedgerow saplings north of hedgerow C as necessary to allow them to establish. 	Su	F O Group

Watnall Green (proposed) Local Nature Reserve

3.1.1 1	1	<ul style="list-style-type: none"> • Install bird and bat and boxes 	Wi	F O Group / Broxtowe Borough Council
3.1.1 2	1	<ul style="list-style-type: none"> • Undertake botanical and insect surveys 	Sp / Su	NWT
3.1.1 3	1	<ul style="list-style-type: none"> • Tree planting in area 1 and within hedgerows 	Wi	F O Group / Broxtowe Borough Council
3.1.14	1	<ul style="list-style-type: none"> • Establish and support Friends Group 	Sp/Su /Au/W i	Broxtowe BC / NWT

Management Detail for details regarding implementation of prescriptions detailed above. See part 3.1

Year 2 – 2012

Reference Number	Priority (1-3)	Compartment / Prescription Detail	Season (Sp/Su/Au/Wi)	Who (contractor, Gedling BC, volunteer group)
3.1.2	1	<ul style="list-style-type: none"> Litter picks and fly tipping removal 	Sp / Su / Au / Wi	Friends of Group / Broxtowe Borough Council
3.1.3	1	<ul style="list-style-type: none"> Cut all grass within current regime (except buffer strip) 	Su (Sept)	Broxtowe Borough Council / Contractor
3.1.4	1	<ul style="list-style-type: none"> Regularly mow grass paths and amenity areas 	Sp / Su / Au	Broxtowe Borough Council
3.1.5	2	<ul style="list-style-type: none"> Strim or flail 1/5th of buffer strip along all hedgerows 	Sp (Feb)	Broxtowe Borough Council
3.1.6	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on the internal side of the boundary hedgerow. 	Wi	Broxtowe Borough Council
3.1.7	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on hedgerow A. Cut to a height of 1.8 metres (6ft) and to produce a width of 2 metres at the base. (Only one side to be cut each year) Lay hedgerow C2. Ongoing cutting regime after this 5 year plan should be an annual diagonal cut. (Only one side cut each year) 	Wi	Broxtowe Borough Council / Contractor
3.1.8	1	<ul style="list-style-type: none"> After laying, gap up within hedgerow C2 (this may have to wait if whips are to be grown from seed sourced from site) 	Wi	F O Group / Broxtowe Borough Council
3.1.10	1	<ul style="list-style-type: none"> Remove Bindweed around hedgerow saplings north of hedgerow C1 as necessary to allow them to establish 	Su	F O Group / Broxtowe Borough Council
3.1.11	1	<ul style="list-style-type: none"> Install bird and bat boxes 	Wi	F O Group / Broxtowe Borough Council
3.1.13	1	<ul style="list-style-type: none"> Tree planting in area 4 and within hedgerows 	Wi	F O Group / Broxtowe Borough Council
3.1.14	1	<ul style="list-style-type: none"> Establish and support Friends Group 	Sp/Su/Au/Wi	Broxtowe BC / NWT

Management Detail for details regarding implementation of prescriptions detailed above. See part 3.1

Year 3 – 2013

Reference Number	Priority (1-3)	Compartment / Prescription Detail	Season (Sp/Su/Au/Wi)	Who (contractor, Gedling BC, volunteer group)
3.1.1	1	<ul style="list-style-type: none"> Install updated reserve signs / Interpretation panels at entrances to site from Holly Road and Trough Road. Smaller reserve signs on other entrances if possible 	Sp / Su / Au / Wi	Broxtowe Borough Council
3.1.2	1	<ul style="list-style-type: none"> Litter picks and fly tipping removal 	Sp / Su / Au / Wi	Friends of Group / Broxtowe Borough Council
3.1.3	1	<ul style="list-style-type: none"> Cut all grass within current regime (except buffer strip) 	Su	Broxtowe Borough Council / contractor
3.1.4	1	<ul style="list-style-type: none"> Regularly mow grass paths and amenity areas 	Sp / Su / Au	Broxtowe Borough Council
3.1.5	2	<ul style="list-style-type: none"> Strim or flail 1/5th of buffer strip along all hedgerows 	Sp (Feb)	Broxtowe Borough Council
3.1.6	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on the internal side of the boundary hedgerow. 	Wi	Broxtowe Borough Council
3.1.7	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on hedgerow A. Cut to a height of 1.8 metres (6ft) and to produce a width of 2 metres at the base. (Only one side to be cut each year) Lay hedgerow C3. Ongoing cutting regime after this 5 year plan should be an annual diagonal cut. (Only one side cut each year) 	Wi	Broxtowe Borough Council / Contractor
3.1.8	1	<ul style="list-style-type: none"> After laying gap up within hedgerow C3 (this may have to wait if whips are to be grown from seed sourced from site) 	Wi	F O Group / Broxtowe Borough Council
3.1.9	1	<ul style="list-style-type: none"> Single sycamore to be felled with a chainsaw by a suitably qualified person. 	Wi	Broxtowe Borough Council
3.1.10	1	<ul style="list-style-type: none"> Remove Bindweed around hedgerow saplings north of hedgerow C1 as necessary to allow them to establish 	Su	F O Group / Broxtowe Borough Council
3.1.13	1	<ul style="list-style-type: none"> Tree planting in area 1 and within hedgerows 	Wi	F O Group / Broxtowe Borough Council
3.1.14	1	<ul style="list-style-type: none"> Establish and support Friends Group 	Sp/Su /Au/Wi	Broxtowe BC / NWT

Management Detail for details regarding implementation of prescriptions detailed above. See part 3.1

Year 4 – 2014

Reference Number	Priority (1-3)	Compartment / Prescription Detail	Season (Sp/Su/Au/Wi)	Who (contractor, Gedling BC, volunteer group)
3.1.2	1	<ul style="list-style-type: none"> Litter picks and fly tipping removal 	Sp / Su / Au / Wi	Friends of Group / Broxtowe Borough Council
3.1.3	1	<ul style="list-style-type: none"> Cut all grass within current regime (except buffer strip) 	Su	Broxtowe Borough Council / Contractor
3.1.4	1	<ul style="list-style-type: none"> Regularly mow grass paths and amenity areas 	Sp / Su / Au	Broxtowe Borough Council
3.1.5	2	<ul style="list-style-type: none"> Strim or flail 1/5th of buffer strip along all hedgerows 	Sp (Feb)	Broxtowe Borough Council
3.1.6	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on the internal side of the boundary hedgerow. 	Wi	Broxtowe Borough Council
3.1.7	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on hedgerow A. Cut to a height of 1.8 metres (6ft) and to produce a width of 2 metres at the base. (Only one side to be cut each year) Lay hedgerow C4. Ongoing cutting regime after this 5 year plan should be an annual diagonal cut. (Only one side cut each year) 	Wi	Broxtowe Borough Council / Contractor
3.1.8	1	<ul style="list-style-type: none"> After laying gap up within hedgerow C4 (this may have to wait if whips are to be grown from seed sourced from site) 	Wi	F O Group / Broxtowe Borough Council
3.1.10	1	<ul style="list-style-type: none"> Remove Bindweed around hedgerow saplings north of hedgerow C1 as necessary to allow them to establish 	Su	F O Group / Broxtowe Borough Council
3.1.13	1	<ul style="list-style-type: none"> Tree planting in area 1 and within hedgerows 	Wi	F O Group / Broxtowe Borough Council
3.1.14	1	<ul style="list-style-type: none"> Establish and support Friends Group 	Sp/Su /Au/Wi	Broxtowe BC / NWT

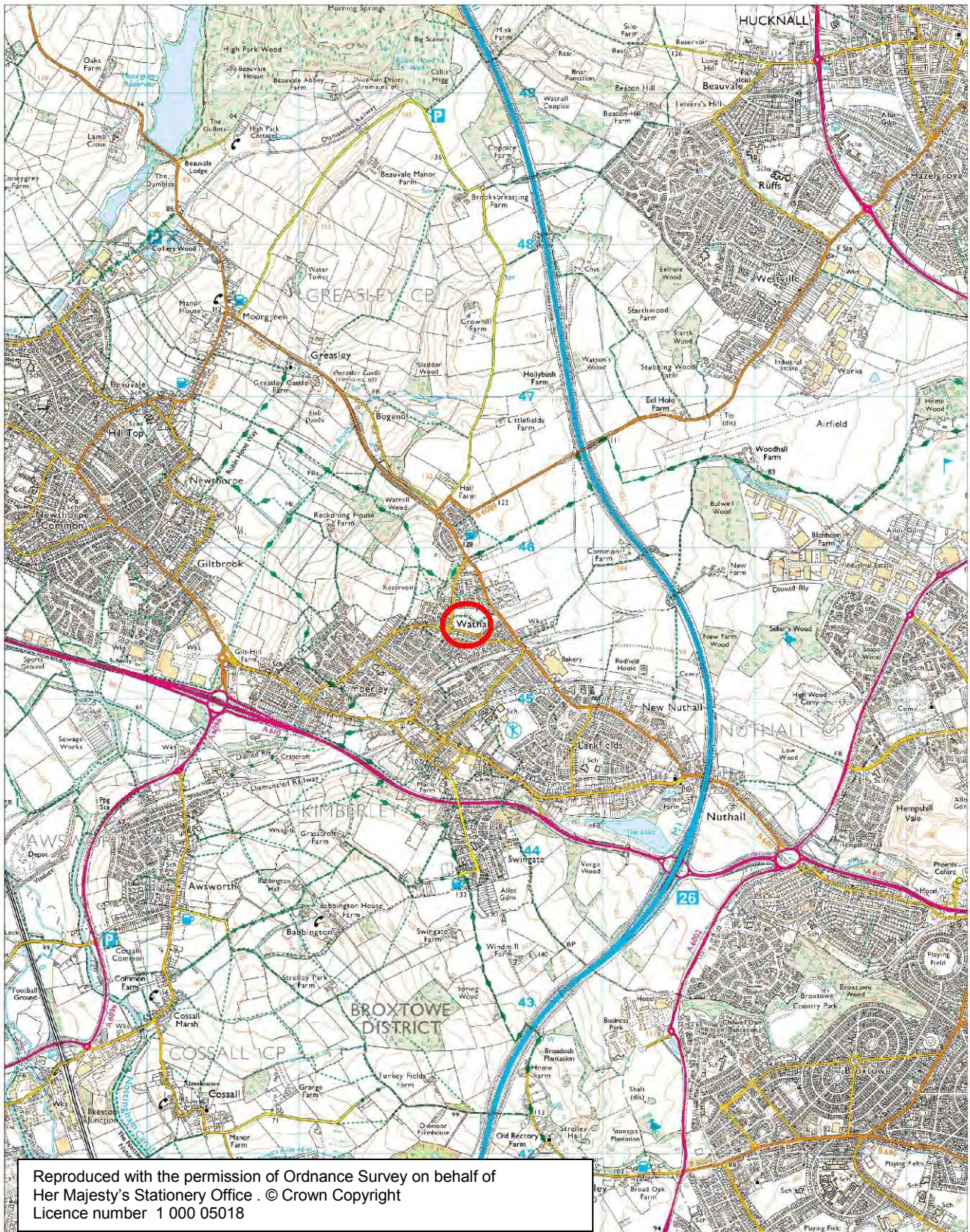
Management Detail for details regarding implementation of prescriptions detailed above. See part 3.1

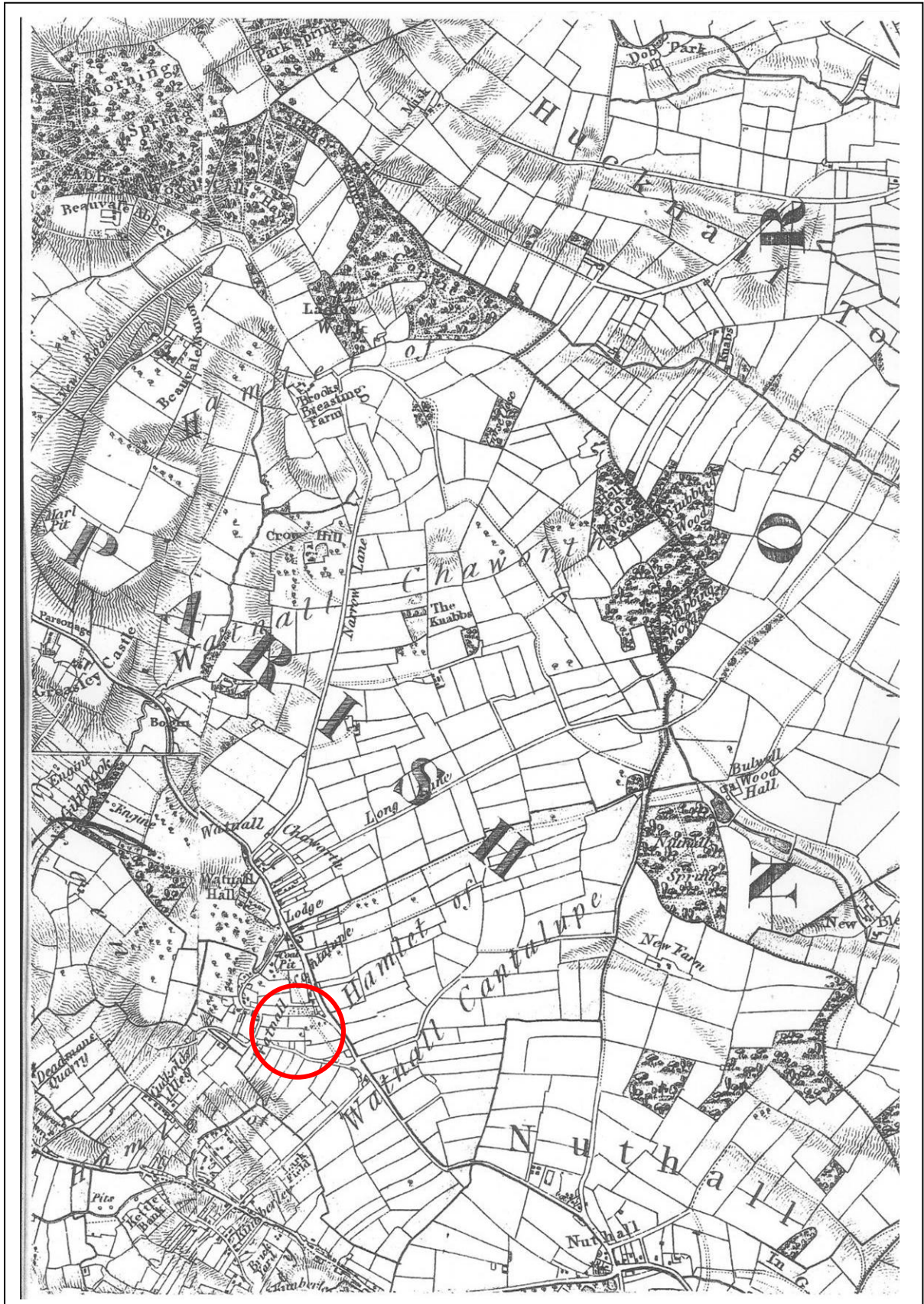
Year 5 - 2015

Reference Number	Priority (1-3)	Compartment / Prescription Detail	Season (Sp/Su/Au/Wi)	Who (contractor, Gedling BC, volunteer group)
3.1.2	1	<ul style="list-style-type: none"> Litter picks and fly tipping removal 	Sp / Su / Au / Wi	Friends of Group / Broxtowe Borough Council
3.1.3	1	<ul style="list-style-type: none"> Cut all grass within current regime (except buffer strip) 	Su	Broxtowe Borough Council / Contractor
3.1.4	1	<ul style="list-style-type: none"> Regularly mow grass paths and amenity areas 	Sp / Su / Au	Broxtowe Borough Council
3.1.5	2	<ul style="list-style-type: none"> Strim or flail 1/5th of buffer strip along all hedgerows 	Sp (Feb)	Broxtowe Borough Council
3.1.6	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on the internal side of the boundary hedgerow. 	Wi	Broxtowe Borough Council
3.1.7	1	<ul style="list-style-type: none"> Use of an annual diagonal cut on hedgerow A. Cut to a height of 1.8 metres (6ft) and to produce a width of 2 metres at the base. (Only one side to be cut each year) Ongoing cutting regime for hedgerow C after this 5 year plan should be an annual diagonal cut (see above) to 1.8 metres in height and 3 metres wide. (Only one side to be cut each year) 	Wi	Broxtowe Borough Council / Contractor
3.1.10	1	<ul style="list-style-type: none"> Remove Bindweed around hedgerow saplings north of hedgerow C as necessary to allow them to establish. 	Su	F O Group / Broxtowe Borough Council
3.1.12	1	<ul style="list-style-type: none"> Undertake botanical and insect surveys 	Sp / Su	NWT
3.1.14	1	<ul style="list-style-type: none"> Establish and support Friends Group 	Sp/Su/Au/Wi	Broxtowe BC / NWT

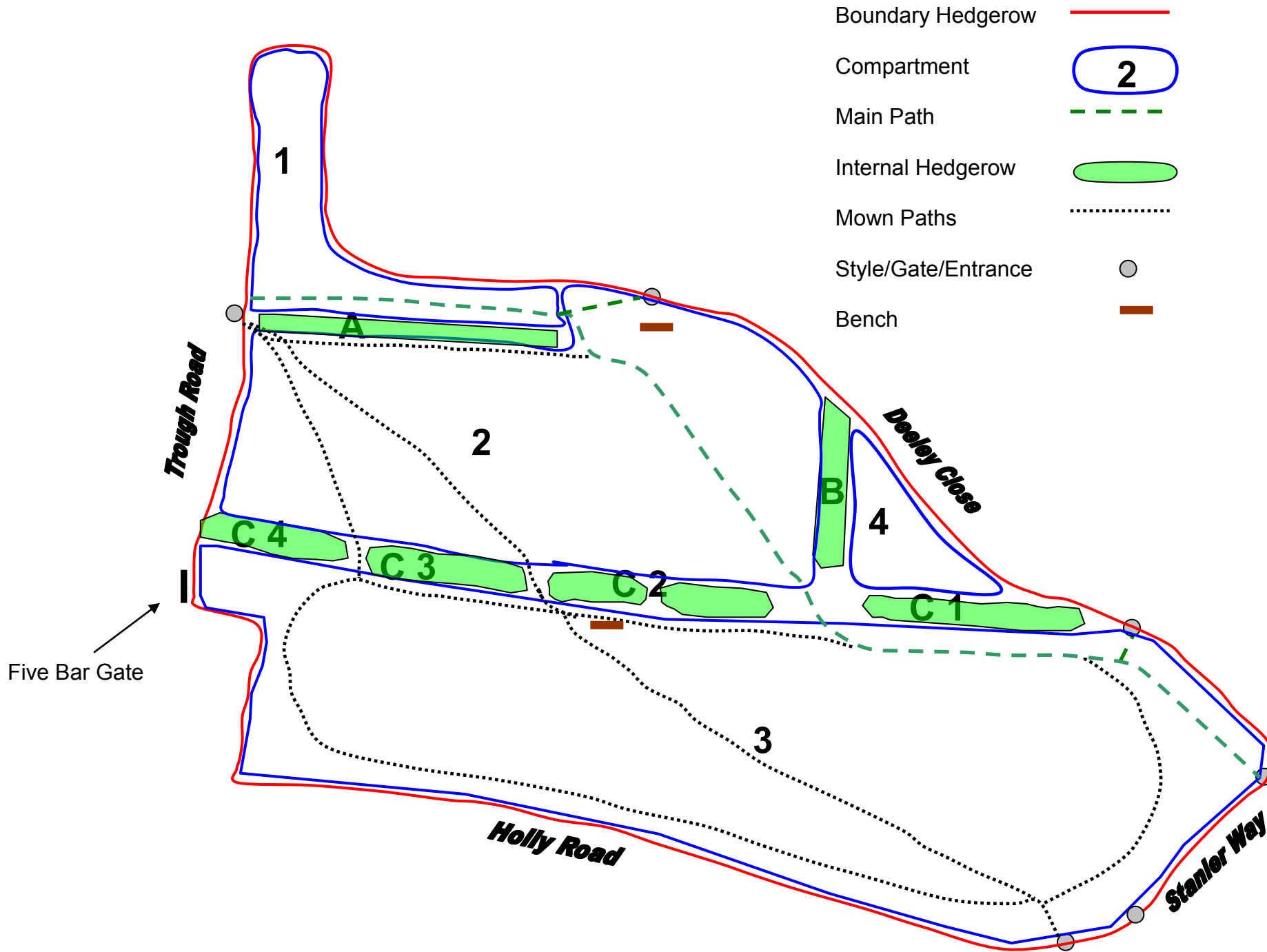
Management Detail for details regarding implementation of prescriptions detailed above. See part 3.1

PART 4:
APPENDICES









Species suitable for planting within hedgerows at Watnall Green

Shrubs

Hawthorn (*Crataegus monogyna*)
Hazel (*Coryllus avellana*)
Purging Buckthorn (*Rhamnus cathartica*)
Dogwood (Common) (*Cornus sanguinea*)
Guelder Rose (*Viburnum opulus*)
Midland Hawthorn (*Crataegus laevigata*)
Holly (*Ilex aquifolium*)
Wild Privet (*Ligustrum vulgare*)
Field Rose (*Rosa arvensis*)
Dog Rose (*Rosa canina*)

Species suitable for planting within hedgerows or as a copse at Watnall Green

Trees

Pedunculate / English Oak (*Quercus robur*)
Ash (*Fraxinus excelsior*)
Crab Apple (*Malus sylvestris*)
Yew (*Taxus baccata*) – Copse area only
Field Maple (*Acer campestre*)
Small leaved Lime (*Tilia cordata*) – Copse area only

Watnall Green Botanical Survey 08/05/09

Annual Meadow-grass	<i>Poa annua</i>
Bluebell	<i>Hyacinthoides non-scripta</i>
Bramble	<i>Rubus fruticosus</i> agg.
Broad-leaved Dock	<i>Rumex obtusifolius</i>
Bulbous Buttercup	<i>Ranunculus bulbosus</i>
Cleavers	<i>Galium aparine</i>
Cock's-foot	<i>Dactylis glomerata</i>
Common Chickweed	<i>Stellaria media</i>
Common Nettle	<i>Urtica dioica</i>
Common Sorrel	<i>Rumex acetosa</i>
Cow Parsley	<i>Anthriscus sylvestris</i>
Creeping Buttercup	<i>Ranunculus repens</i>
Creeping Thistle	<i>Cirsium arvense</i>
Daisy	<i>Bellis perennis</i>
Dandelion	<i>Taraxacum officinale</i> agg.
Elder	<i>Sambucus nigra</i>
False Oat-grass	<i>Arrhenatherum elatius</i>
Garlic Mustard	<i>Alliaria petiolata</i>
Hairy Brome	<i>Bromopsis ramosa</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Hedge Woundwort	<i>Stachys sylvatica</i>
Hogweed	<i>Heracleum sphondylium</i>
Holly	<i>Ilex aquifolium</i>
Hornbeam	<i>Carpinus betulus</i>
Hybrid Lime	<i>Tilia x europeaus</i>
Ivy	<i>Hedera helix</i>
Lesser Celandine	<i>Ranunculus ficaria</i>
Meadow Buttercup	<i>Ranunculus acris</i>
Meadow Foxtail	<i>Alopecurus pratensis</i>
Perennial Rye-grass	<i>Lolium perenne</i>
Red Clover	<i>Trifolium pratense</i>
Red Fescue	<i>Festuca rubra</i> agg.
Ribwort Plantain	<i>Plantago lanceolata</i>
Rough Meadow-grass	<i>Poa trivialis</i>
Rowan	<i>Sorbus aucuparia</i>
Smooth Meadow-grass	<i>Poa pratensis</i> sens.lat.
Soft brome	<i>Bromus hordaceus</i>
Sweet Vernal Grass	<i>Anthoxanthum odoratum</i>
Tall Fescue	<i>Festuca arundinacea</i>
White Clover	<i>Trifolium repens</i>
White Dead-nettle	<i>Lamium album</i>
Yorkshire-fog	<i>Holcus lanatus</i>

Notes

- This is not to be considered a comprehensive list of the vegetative species at this site
- Meadow Saxifrage is known to be present on the site but wasn't spotted in this survey

