# Watnall Green

# Local Nature Reserve

# Management Plan

# 2021 – 2026


Broxtowe Borough COUNCIL

THE wildlife TRUSTS Nottinghamshire

# Contents

**This management plan was produced by Nottinghamshire Wildlife Trust in partnership with Broxtowe Borough Council and the Friends of Watnall Green and Spinney.**

**June 2021**

# INTRODUCTION

Watnall Green was designated as a Local Nature Reserve (LNR) in 2012. Broxtowe Borough Council have formerly designated fifteen Local Nature Reserves and has a policy to declare more sites whenever possible.

The reserve is owned and managed by Broxtowe Borough Council. The council is keen to improve biodiversity throughout the borough and works closely with many groups as well as the Nottinghamshire Wildlife Trust to enhance the diverse range of habitats and species which can be found in the Borough.

This management plan was produced by Nottinghamshire Wildlife Trust on behalf of Broxtowe Borough Council, the local community and The Friends of Watnall Green and Spinney. The management proposals contained within this plan have been agreed in consultation with the representatives of Broxtowe Borough Council and the local community. The Management Plan covers a five-year period, after which it should be reviewed and updated. A previous Management Plan (2011 – 2015) was compiled by Nottinghamshire Wildlife Trust on behalf of Broxtowe Borough Council.

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; and
- Monitor effects of management on the wildlife on the site.

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

## Site Overview

Watnall Green LNR is situated in within an urban setting and is centred on OS grid reference SK 50094 45509. The reserve is bordered on all sides by roads; Trough Road, Holly Road, Deeley Close, and Stannier Way.

The site covers an area of approximately 1.88 ha and comprises species-rich grassland, hedgerows, and scattered trees.

## Access

Watnall Green LNR can be accessed at several points; one from Trough Road, two from Deeley Close, and one on the corner of Holly Road and Stannier Way.

A surfaced track runs from Trough Road to Stannier Way. Wide grass rides are also cut and maintained through the grassland, facilitating scenic walks through the wildflower meadows. The only vehicular access point is off Trough Road through a chained and locked five-bar gate.

There is no dedicated car park. However, there is ample car parking on the roads adjacent to the site.

The location and boundaries of the site can be viewed in Appendix 1 and Appendix 2.

# PART 1: ROLES AND RESPONSIBILITIES

## 1.1 Broxtowe Borough Council

The site is owned by Broxtowe Borough Council https://www.broxtowe.gov.uk/. The Corporate Plan (2020 – 2024) which sets out the Council's priorities for the next four years incorporates five key priorities alongside a series of corresponding objectives and targeted outcomes. The overriding vision of the Plan is:

## Vision

A greener, safer, healthier borough, where everyone prospers.

The objectives that are most relevant to this plan are:

**Priority – Environment:** Protect the environment for the future.

### Key Objectives

1. Develop plans to reduce the Borough's carbon emissions to net zero by 2027 and start implementing them.
2. Invest in parks and open spaces.
3. Increase recycling and composting.

## 1.2 Natural England

Natural England is an executive non-departmental public body, sponsored by the Department for Environment, Food & Rural Affairs (Defra). It is the Government's adviser for the natural environment in England, helping to protect England's nature and landscapes for people to enjoy and for the services they provide. Natural England provides advice on the declaration of LNRs in England and maintains a database of these sites.

https://www.gov.uk/government/organisations/natural-england

http://www.lnr.naturalengland.org.uk/Special/lnr/lnr_search.asp

## 1.3 Environmental organisations

The Council works in partnership with many organisations to deliver improvements on open spaces for wildlife. For instance, the Nottinghamshire Wildlife Trust, Nottinghamshire Biodiversity Action Group, Nottinghamshire Biological and Geological Record Centre (NBGRC) and Practical Conservation Volunteers CIC.

Members of the 'Friends of Watnall Green & Spinney' also play an active part in the ongoing management of the site.

# PART 2: DESCRIPTION

## 2.1 Location and Map Coverage

Watnall Green LNR is bordered to the west by Trough Road, with Holly Road to the south, Stannier Way to the east, and Deeley Close to the north.

The site can be found on Ordnance Survey (OS) Landranger map no. 129 (1:50 000 scale) and OS Explorer map no. 260 (1:25 000 scale). A location map is provided at Appendix 1.

## 2.2 General Description

The site comprises two main habitats: grassland and hedgerows.

Hedgerows border the site on all sides, with the exception of the south-west corner where the site abuts a residential boundary. The hedgerows are species-poor and are subject to regular flailing.

There are two large meadows, which make up much of the site. These have been seeded with a calcareous grassland / meadow seed mix and are under a 'wildflower meadow' management regime, with a full cut undertaken in September once the flowers and grasses have gone to seed. The two meadows are bisected by a mature, species-poor hedgerow. Grassy rides are maintained at strategic locations through the meadows to enable pedestrian access throughout the growing season.

A small rectangular area located to the north-west of the site is seeded each year with a 'wild feed' seed mix and left uncut to provide foraging opportunities for birds. Towards the north of the LNR, alongside the central section of Deeley Close is a small 'crescent moon' shaped area which is seeded with annual flower seed mixes.

Since Broxtowe Borough Council took ownership of the site, several rows of trees have been planted in strategic places. These include a range of native species including field maple (*Acer campestre*), oak (*Quercus sp.*), rowan (*Sorbus aucuparia*), lime (*Tilia* sp.), and birch (*Betula* sp.).

## 2.3 Intrinsic Appeal

The sites intrinsic appeal lies in its resource to the local community as a valuable recreational space as well as providing the opportunity to experience nature. The hedgerows provide some screening to the adjacent housing development giving the feeling of seclusion.

The area provides a valuable recreational green space and is a popular place to exercise, walk dogs, take a short stroll, socialise with family and friends, and to enable children to play and explore in a safe environment. There is a small number of benches and a picnic table on site.

## 2.4 Geology and Soils

The 1:50 000 scale bedrock geology map (http://mapapps.bgs.ac.uk/geologyofbritain/home.html) records the site as being situated within "*Cadeby Formation - Dolostone. Sedimentary Bedrock formed approximately 252 to 272 million years ago in the Permian Period. Local environment previously dominated by shallow carbonate seas*". "*These sedimentary rocks are shallow-marine in origin. They are biogenic and detrital, generally comprising carbonate material (coral, shell fragments), forming beds and locally reefs.*

The soils are shallow, locally brashy, well drained calcareous fine loamy soils over limestone. The site sits within Soilscape 5 "*Freely draining lime-rich loamy soils*" which is typically associated with "herb-rich chalk and limestone pastures; lime-rich deciduous woodlands" (Soilscapes: http://www.landis.org.uk/soilscapes/index.cfm).

## 2.5 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 119m (390 feet) above sea level.

## 2.6 Historical Land-use

Historic maps dating back to 1885 note the land which now forms Watnall Green LNR as once comprising agricultural land and appears to have been made up of small fields or paddocks. The shape of the site has changed little over the years (Appendix 4). However, encroaching housing developments (primarily to the east) 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.

## 2.7 Designations

### Statutory Sites

Watnall Spinney was designated a Local Nature Reserve (LNR) in 2012. LNRs are a statutory designation made under Section 21 of the National Parks and Access to the Countryside Act 1949 by principal local authorities.

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 the creation of special byelaws. 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.

Watnall Spinney LNR is situated approximately 156m north of Watnall Spinney LNR. The site is also owned and managed by Broxtowe Borough Council and comprises a linear band of semi-natural broadleaf woodland. The site also contains two historic ponds and WWII bunkers.

There are several other statutory designated sites in the wider landscape, the closest being Kimberley Railway Cutting Site of Special Scientific Interest (SSSI), situated approximately 160m south of Watnall Green LNR. Natural England lists the description and reason for SSSI designation as "*A key palaeobotanical locality yielding a distinctive Permian flora. Dominated by its common conifer remains this flora is also remarkable for the rare specimens of the pteridosperm* Lepidopteris martinsii*. A nationally important locality for its Permian gymnosperm floras, particularly representative of the predominantly Mesozoic Peltaspermaceae*".

## Non-Statutory Sites

There are several Local Wildlife Sites (LWS) and Local Geological Sites (LGS) within the wider landscape, the closest being Kimberley Cutting LWS (160m south), Holly Road Grassland LWS (166m south), and Watnall Wood LGS (680m north-west).

# PART 3: MANAGEMENT RECOMMENDATIONS AND IMPLEMENTATION OF HABITATS

## 3.1. Bird Feed Crop Area

Zone 1 (Appendix 2) is seeded annually with a 'bird feed crop' to provide foraging opportunities for a broad range of bird species as well as small mammals. The habitat is left uncut over the winter, providing an important food source during the leaner months.

The area is strimmed in February before cultivating the soil ready for re-seeding. Seeds are then sown in late April / early May.

## 3.2 Grassland

Watnall Green LNR contains two specific areas or 'grassland zones', these can be viewed on the reserve map located in Appendix 2. Each of the zones comprise a broad habitat type of either 'hay meadow', or 'amenity grassland'. Both habitat types require a specific management regime.

### Hay Meadows (Zones 2 & 3)

There are two hay meadows on site (Zone 2 & 3; Appendix 2). These are semi-improved grasslands recently over-seeded with a calcareous grassland mix and managed as traditional 'hay meadows'. This entails cutting the grassland on an annual basis, usually in late September once the grasses and flowers have set seed. The grass cuttings (arisings) are then raked up and removed off site. The removal of the arisings helps to maintain the existing nutrient levels, reducing the growth of tall competitive species.

Two diagonal pathways are cut and maintained through the top meadow (Zone 2, Appendix 2) to provide a walking route through the grassland. The edges of the lower meadow (Zone 3, Appendix 2) are cut to provide a circular walking route.

### Amenity Grassland (Zone 4)

Much of the reserve is managed as amenity grassland (Zone 4; Appendix 2) to provide open space for active recreation and help reduce footfall within the hay meadows. The grassland within Zone 4 is therefore subject to a regular cutting regime to maintain a short grass sward (approximately 12 cuts per year).

Maintaining a short grass sward year-round will limit the biodiversity potential of the grassland by reducing the cover afforded by longer grasses and restrict flowering potential, resulting in limited opportunities for invertebrates, particularly pollinators. It is therefore proposed that a wildlife buffer is created along the edges of the grassland by reducing the cutting regime in these areas.

A 1m buffer of long grass will be left between the mown grass paths and the hedgerows to provide structural diversity and increase the wildlife potential. The 1m buffer will require cutting / strimming during February of each year (before the bird breeding season) to prevent scrub encroachment into grassland areas. These grassland areas, once established, will attract, and support increased numbers of invertebrates such as butterflies, moths, and hoverflies, which in turn will attract other species such

as birds and bats which feed upon them. The longer sward will also provide shelter for wildlife over the winter period.

### Meadow Saxifrage

Meadow saxifrage (*Saxifraga granulata*) has been recorded within the grassland in the recent past. However, the species is now thought to be locally extinct. Unsympathetic management in the past is likely to have caused the loss of the species, therefore it is recommended that meadow saxifrage is re-established on site.

Meadow saxifrage is typically associated with moist, well-drained, alkaline (pH >7.5) to neutral soils (pH 6-7) and is absent from acidic soils. Soil fertility and pH are key factors when attempting to establish meadow saxifrage. Therefore, it is recommended that careful consideration is given to selecting the area where the meadow saxifrage is to be planted. The LNR sits within the Magnesian Limestone and therefore pH levels should be ideal. However, the nursery stock (newly planted specimens) should ideally be sited away from areas that are subjected to high dog walking activity as compaction from constant trampling and / or changes to pH from concentrated nitrogen in dog urine may suppress the plant's growth, or even kill it.

Meadow saxifrage can be established by seed or plug planting. In the first instance, plug planting of at least ten founder plants should be undertaken. This will enable the species to become established at a quicker rate. Where possible, plants of local provenance should be used to increase the likelihood of successful uptake.

Post-planting, the plug plants should be supported through occasional watering (during dry periods) and any competitive vegetation growth in proximity should be cut back to allow the meadow saxifrage to thrive.

Once established, seeds can be collected each year from the nursery stock to increase the plant stock. The seeds should be sown during late summer when soil conditions are relatively warm and moist. This will give the young plants time to establish over winter ready for vigorous growth the following spring.

## 3.3 Hedgerows

Watnall Green LNR comprises several hedgerows (Appendix 2). Boundary hedgerows fully enclose the site, apart from the south-west corner where a residential property is sited. This elevation is secured by the external walls of the property.

Along the centre of the site, running east to west is a mature hedgerow that is divided into four sections (H1 – H4) where pedestrian tracks bisect the habitat.

Between H1 and H2, a short section of mature hedgerow (H6) runs from the northern boundary hedgerow south. Along the northern track, a 60m stretch of hedgerow runs parallel (H5) in an east west orientation. Towards the end, a short stretch (approximately 5m) of hedgerow (H6) runs from the northern hedgerow, south.

The internal hedgerows (H1 – H4, & H6) appear on historic maps dating from 1899 (See Appendix 4). 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://nottsbag.org.uk/wp-content/uploads/2020/10/Hedgerows-HAP-version-2009.pdf

## Boundary Hedgerows

Much of the hedgerow is dominated by hawthorn (*Crataegus monogyna*), with blackthorn (*Prunus spinosa*), elder (*Sambucus nigra*), holly (*Ilex aquifolium*), and field maple (*Acer campestre*). Additional species have been incorporating in recent years with the planting of whips in certain sections. Species include dogwood (*Cornus sanguinea*), guelder rose (*Viburnum opulus*) and wild privet (*Ligustrum vulgare*).

The current cutting regime involves flail cutting both sides and the top of the hedgerow on an annual basis, resulting in a narrow hedge. Over time, this intensive management will lead to a reduction in the quality of the hedgerow. Likely effects include a reduction of the fruiting yields (less flowers, seeds, fruits for wildlife), gradual loss of the lower branches and eventually the hedgerow base will become gappy.

Increasing the width and height of a hedgerow increases the diversity and abundance of wildlife within it. It is therefore proposed to implement a less rigorous cutting regime to improve the overall shape, mass, and wildlife potential of the hedgerow. The exterior of the hedgerows should be cut annually to maintain a 'managed look', this should be undertaken in late January / early February to ensure that wildlife can utilise the berries over the winter period. The top and internal side of the hedgerows should be cut every other year to improve the overall shape and increase the biodiversity value of the habitat.

Ideally, the hedgerows should be subject to 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.

## Hedgerow 1 to 4 (H1 – H4)

The central hedgerow is dominated by overstood hawthorn, with elder, holly and blackthorn. Ivy is prevalent in places, with many of the bigger limbs covered in dense ivy foliage. The hedgerow is subject to little management and thus has an average width of over 3m in places. The wide canopy has resulted in overshading of the ground flora, which as a consequence is predominately bare, with the occasional stands of shade tolerant species including common nettle and rank grasses.

The gappy hedge bases offer little permanent shelter to wildlife. However, they will provide temporary cover and act as a wildlife corridor through the site. Furthermore, the flowers and fruits produced by the mature hedgerow trees will offer foraging and nectar opportunities for a range of birds and invertebrates and the mature canopy will provide good foraging and commuting habitat for bats.

The different management regimes (regular maintenance v unmanaged) between the various hedgerows will provide a range of options for wildlife and therefore it is considered that the central

hedgerow should be maintained in its current condition, with only remedial pruning to be undertaken for health and safety purposes.

To enhance the habitat supplementary scrub should be incorporated, to increase shelter and nesting opportunities as well as incorporate additional foraging resources. See Section 3.9 below.

## Hedgerow 5 (H5)

The hedgerow is dominated by hawthorn, with elder and ivy and managed annually using a 'hard cut' to approximately 1.2m. The resulting effect is that the hedgerow is beginning to become gappy at certain sections. If maintained at the same level over subsequent years, the hedgerow is likely to become defunct. In its current form the habitat is likely to provide limited opportunities for wildlife. The ground flora within the hedge base is sparse and therefore unlikely to support a rich invertebrate assemblage. Bird nesting opportunities are likely to also be constrained by the narrow width of the hedgerow and the short height is unlikely to attract foraging and commuting bats.

The hedgerow would benefit from 'cutting back and gaping up'. Sections that have gaps at the bases but meet at the top (Figure 1) should be trimmed back and planted up with native hedgerow species. Ideally a minimum of four additional species should be included to enhance the species diversity of the hedgerow. Alternatively, the hedgerow can be structurally rejuvenated by undertaking a full coppice of the woody material, or laying.

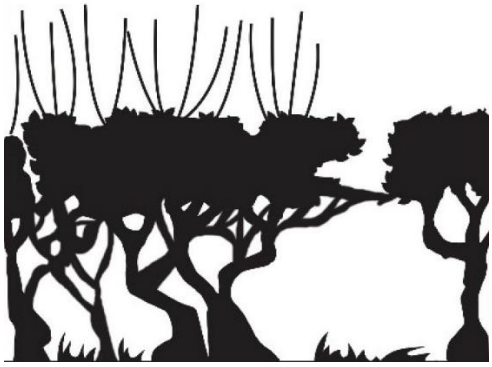


***Figure 1: Example of gappy hedgerow.***

To maintain a healthy hedgerow following the abovementioned management, the cutting regime should be altered to enable the new hedgerow planting to establish. Any cutting should be undertaken over the winter period (ideally January / February) to preserve the berries for foraging birds and to avoid disturbance during the main bird breeding season (March to September, inclusive). Raise the cutting height and width with each consecutive cut, and trim on a two- or three-year rotation.

## Hedgerow 6 (H6)

A short stretch of mature hedgerow approximately 35m in length. The hedge is dominated by overstood hawthorn with the occasional holly and elder. Many of the hedgerow shrubs are covered in ivy. The mature nature of the habitat is likely to provide an important wildlife corridor from the boundary hedgerow to the north of the site, which connects to the central hedgerow (H1 – H4) and therefore should be maintained in its current form. Remedial pruning may be necessary for health and

safety reasons. As with Hedgerows (H1 – H4), this hedgerow would benefit from additional scrub species to increase nesting opportunities and enhance the species diversity.

### Hedgerow 7 (H7)

A short stetch of hawthorn hedgerow (approximately 6m in length) that abuts the boundary hedgerow to the north of the site. The management appears to be similar to that of H5, and therefore would benefit from a reduced cutting regime to rejuvenate the overall structure.

## 3.4 Scattered Trees

Most 'standard' trees are semi-mature, having been planted in the last fifteen years. Species include oak, rowan, field maple, lime, and birch. Given the age of the trees it is anticipated that significant management will not be required during the duration of this management plan period. However, periodic health checks should be undertaken to assess for damage / disease. Any loss of trees should be replaced like for like.

Towards the north-east corner, by the gateway on Deeley Close is a mature hawthorn with heavy ivy coverage.

## 3.5 Other Habitats

Towards the north of the site a small semi-circular bed has been created and has been sown with a wildflower seed mix. Spring bulbs including crocus have also been planted in strategic places within the grassland, notably within a triangular area of grassland to the north of the site (Target Note 2; Appendix 2) and just north of the central hedgerow (Target Note 3, Appendix 2).

## 3.6 Benches & Picnic Tables

There are currently two benches on site (Appendix 2) and one picnic table. Consideration should be given to providing additional seating provision by installing more benches or tree stumps at strategic places.

## 3.7 Litter

Litter / dog bins have been installed on site, one at the entrance from Trough Road, one at the entrance from Deeley Close, and one at the entrance from Holly Road. Overall, litter does not appear to be an issue on site. Therefore, it is likely that litter picking / fly-tip removal may only be required on ad hoc basis. However, it may be necessary to undertake litter clearance immediately following any organised events and / or after periods of good weather or public holidays when footfall is likely to be higher than usual.

## 3.8 Encroaching Scrub

Towards the south-west corner of Watnall Green LNR, adjacent to the residential property (Target Note 1; Appendix 2) bramble was noted to be growing alongside the boundary wall. There was also a

triangular section of encroaching hawthorn scrub with nettle beginning to form above the central hedgerow where it meets the western boundary hedgerow.

Annual clearance of the encroaching bramble scrub should be undertaken to prevent spread. The triangular section of hawthorn scrub once matured will provide opportunities for shelter and a foraging resource for a range of species and therefore this habitat should be maintained as scrub by coppicing it on a short rotation (7 – 10 years).

## 3.9 Creation of New Habitats

### Bird and Bat Boxes

The site currently lacks trees of an age and structure suitable to support bird and bat boxes. However, the trees recently planted on site will mature over the coming years and subsequently provide opportunities for installing additional bird nesting and bat roosting habitats.

### Supplementary Scrub

The internal hedgerows (H1 – H4) would benefit from additional planting to enhance the structure and diversity. The mature nature of the habitats, with their tall, overstood trees and shrubs, provide a sheltered corridor for migrating species such as commuting and foraging bats. Therefore, reducing the height through management would likely be detrimental, both intrinsically and ecologically. However, incorporating scrub species into the mix would enhance the structure, provide additional shelter and nesting habitat, and dependent on species planted, may provide foraging opportunities for birds and small mammals.

The shade cast by the canopy of the mature hedgerows will significantly restrict species suitability by suppressing their growth. Therefore, careful consideration should be given when selecting supplementary species to ensure only shade tolerant species are planted. The table below includes native species that are shade tolerant.

***Table 1: A list of shade tolerant native hedge species***

| Common name | Scientific Name | Tolerance |
|---|---|---|
| Hazel | *Corylus avellana* | Tolerant of shade so suitable in the under storey. Prefers relatively rich soils and does not thrive on acid soils. |
| Holly | *Ilex aquifolium* | Very shade tolerant, and so suited to growing as an understorey tree. Grows on a wide range of soil types, from calcareous to poor and acid. |
| Hornbeam | *Carpinus betulus* | Comparatively slow growing and shade tolerant species which is very cold hardy and frost resistant. It does not tolerate peaty soils or those of very poor nutrient status. |
| Wych elm | *Ulmus glabra* | Moderately shade tolerant and cold hardy, and moderately tolerant of exposure. Best suited to fresh to moist soils of rich or very rich fertility. Not suited to very dry or very wet soils or those of poor nutrient status. |
| Yew | *Taxus baccata* | Shade tolerant. Will thrive in most soils, apart from soggy badly drained spots. |

## Habitat Piles

Aside from the hedgerow bases, which are sparse for much of their length, there is little habitat to provide shelter and overwintering opportunities for urban wildlife species such as hedgehogs, common amphibians, and small mammals. The creation of log and or brash piles within the bases of the mature hedgerows at the centre of the site (H1 – H4) will provide further habitat and may attract additional species to the site such as specialist deadwood invertebrates.

Given the locale of the site in context to its urban surroundings, stored timber formed into log piles may be vulnerable to theft for firewood. Therefore, careful consideration should be given to the size of the 'cross-cut' timber used to create the log piles and the way in which they are stored on site. Larger timber is less likely to be taken but may be less aesthetically pleasing in large quantities.

Stacking smaller logs and covering them with earth may reduce the likelihood of the log piles being disturbed. Partially burying logs also has the added benefit of encouraging specialist invertebrates that feed on decaying wood beneath the soil's surface.

It is unlikely that there will be the need to undertake any felling operations on site during the duration of this Management Plan period (2021 – 2026) and therefore timber will need to be gained offsite. Given the potential to import harmful pathogens / and or invasive species, it is vital that all timber brought onto the site is resourced locally and from sites known to be absent of invasive plants (for example Japanese knotweed, Himalayan balsam, variegated yellow archangel).

# PART 4: MANAGEMENT PRESCRIPTIONS

## 4.1 Annual Management Prescriptions

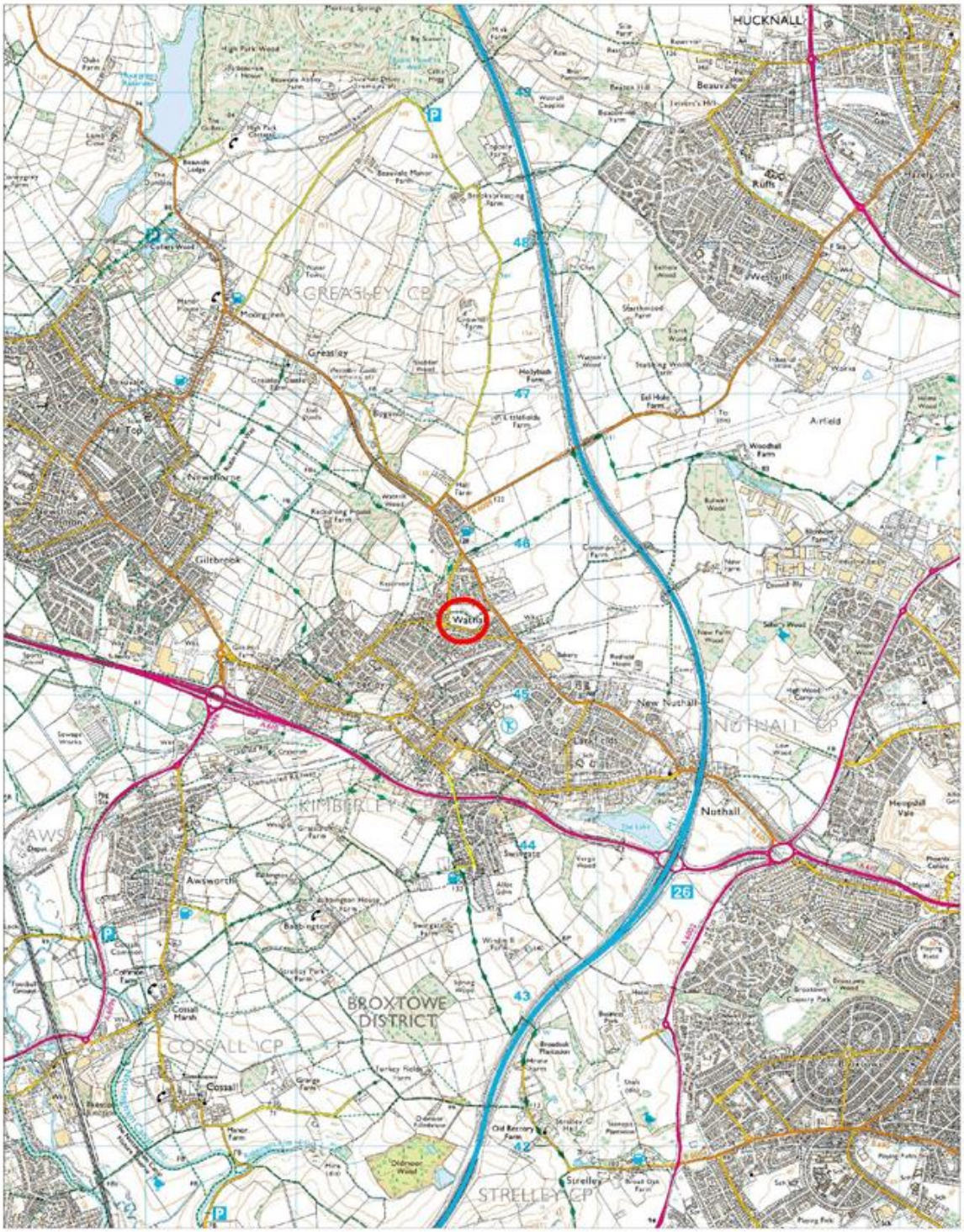
| Task / Operation | Month | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec |
| Litter pick (if & when necessary) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Mow grass paths & amenity grassland (Zone) 4 | | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Cut wildflower meadows (Zones 2 & 3) | | | | | | | | | ✓ | | | |
| Cut grassland boundary / buffer zone | | ✓ | | | | | | | | | | |
| Strim vegetation & cultivate soil in bird feed crop (Zone 1) | | ✓ | | | | | | | | | | |
| Set seed in bird feed crop area (Zone 1) | | | | ✓ | ✓ | | | | | | | |
| Plant meadow saxifrage founding plants | | | | ✓ | | | | | | | | |
| Collect meadow saxifrage seeds & grow in pots | | | | | | ✓ | ✓ | | | | | |
| Plant out meadow saxifrage nursery stock | | | | | | | | ✓ | ✓ | | | |
| Cut exterior of boundary hedgerow | ✓ | ✓ | | | | | | | | | | |
| Cut interior & top of boundary hedgerow | ✓ | ✓ | | | | | | | | | | |
| Hedgerows H1 – H4 & H6 supplementary scrub planting | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Hedgerow H5 cut back & gap up | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Hedgerow H5 flail | ✓ | ✓ | | | | | | | | | | |
| Hedgerow H7 flail | ✓ | ✓ | | | | | | | | | | |
| Annual health check of trees /remedial pruning where required | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Add additional seating | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Cut back encroaching scrub at TN1, alongside house. Loppers required | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| 7–10-year rotational cut of triangular section of scrub | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ |
| Create habitat piles beneath hedgerows H1 – H4 & H6 | ✓ | ✓ | | | | | | | | ✓ | ✓ | ✓ |

## 4.2 5-Year Management Prescriptions

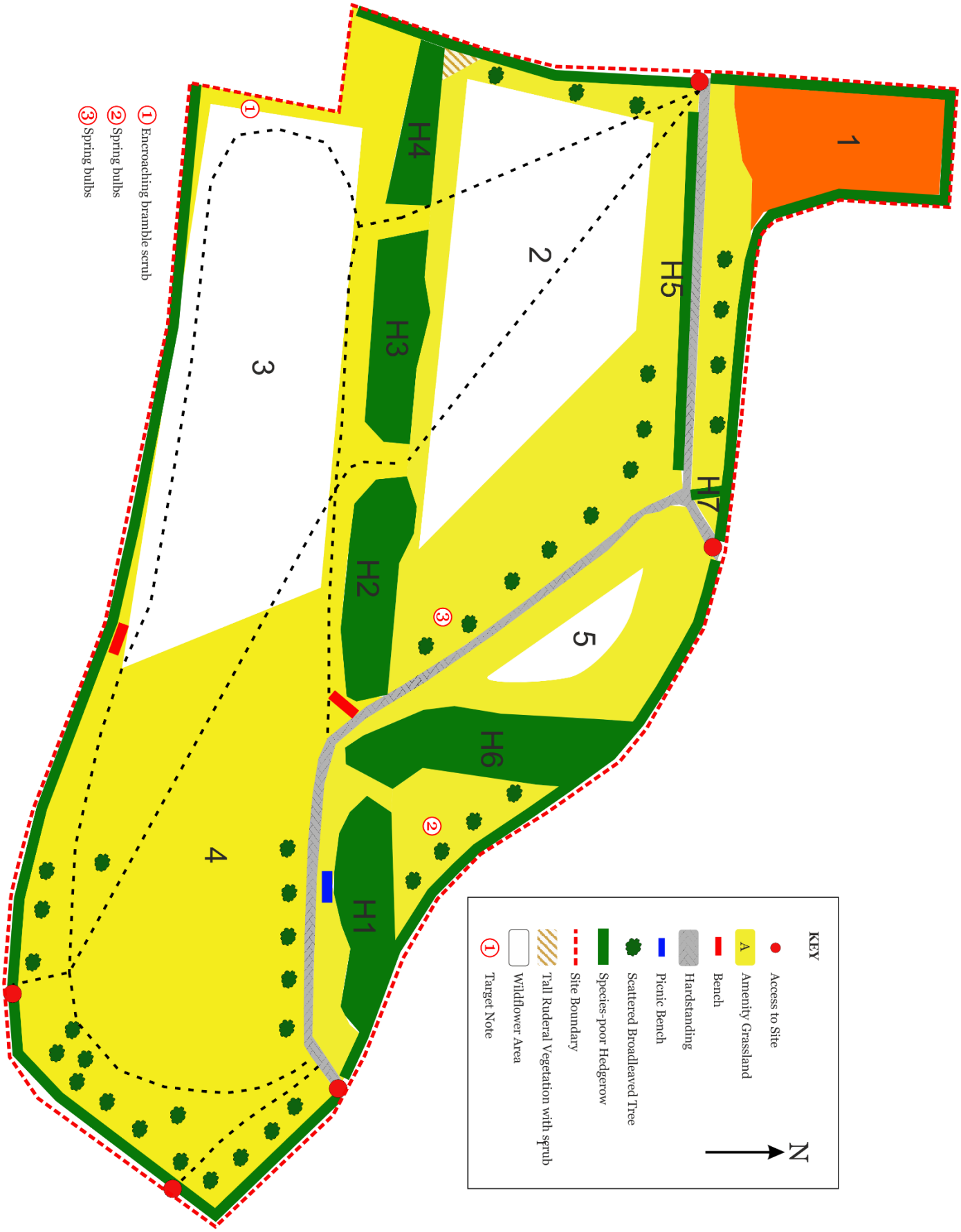
| Task / Operation | Year | | | | | Partner |
|---|---|---|---|---|---|---|
| | 2021/22 | 2022/23 | 2023/24 | 2024/25 | 2025/26 | |
| Carry out litter picks & remove any fly-tipping | ✓ | ✓ | ✓ | ✓ | ✓ | FO/BBC |
| Mow grass paths and amenity grassland | ✓ | ✓ | ✓ | ✓ | ✓ | BBC |
| Cut wildflower meadow | ✓ | ✓ | ✓ | ✓ | ✓ | BBC |
| Cut buffer / grassland edge | ✓ | ✓ | ✓ | ✓ | ✓ | BBC |
| Introduce meadow saxifrage to meadow | ✓ | | | | | FO/BBC |
| Collect meadow saxifrage seeds & grow in pots | | ✓ | ✓ | ✓ | ✓ | FO |
| Plant out meadow saxifrage plants | | | ✓ | ✓ | ✓ | FO |
| Cut boundary hedgerow exterior only | ✓ | ✓ | ✓ | ✓ | ✓ | BBC |
| Cut boundary hedgerow interior & top | | ✓ | | ✓ | | BBC |
| Hedgerows H1 – H4 & H6 supplementary scrub planting | | ✓ | ✓ | | | BBC/FO |
| Hedgerow H5 cut back & gap up | ✓ | ✓ | | | | BBC/FO |
| Hedgerow H5 rotational flail one side per year | | ✓ | ✓ | ✓ | ✓ | BBC/FO |
| Hedgerow H7 rotational flail one side per year | ✓ | ✓ | ✓ | ✓ | ✓ | BBC |
| Health check of all trees | ✓ | ✓ | ✓ | ✓ | ✓ | BBC |
| Add additional seating | | ✓ | ✓ | | | BBC |
| Cut back encroaching scrub at TN 1 | ✓ | ✓ | ✓ | ✓ | ✓ | BBC/FO |
| Rotational cut of triangular scrub | | | | | ✓ | BBC |
| Create habitat piles within Hedgerows H1 – H4 & H6 | ✓ | ✓ | | | | BBC/FO |

# APPENDICES

## Appendix 1: Site Location map



## Appendix 2: Boundary Map of Watnall Spinney Local Nature Reserve



## Appendix 3: Species Lists

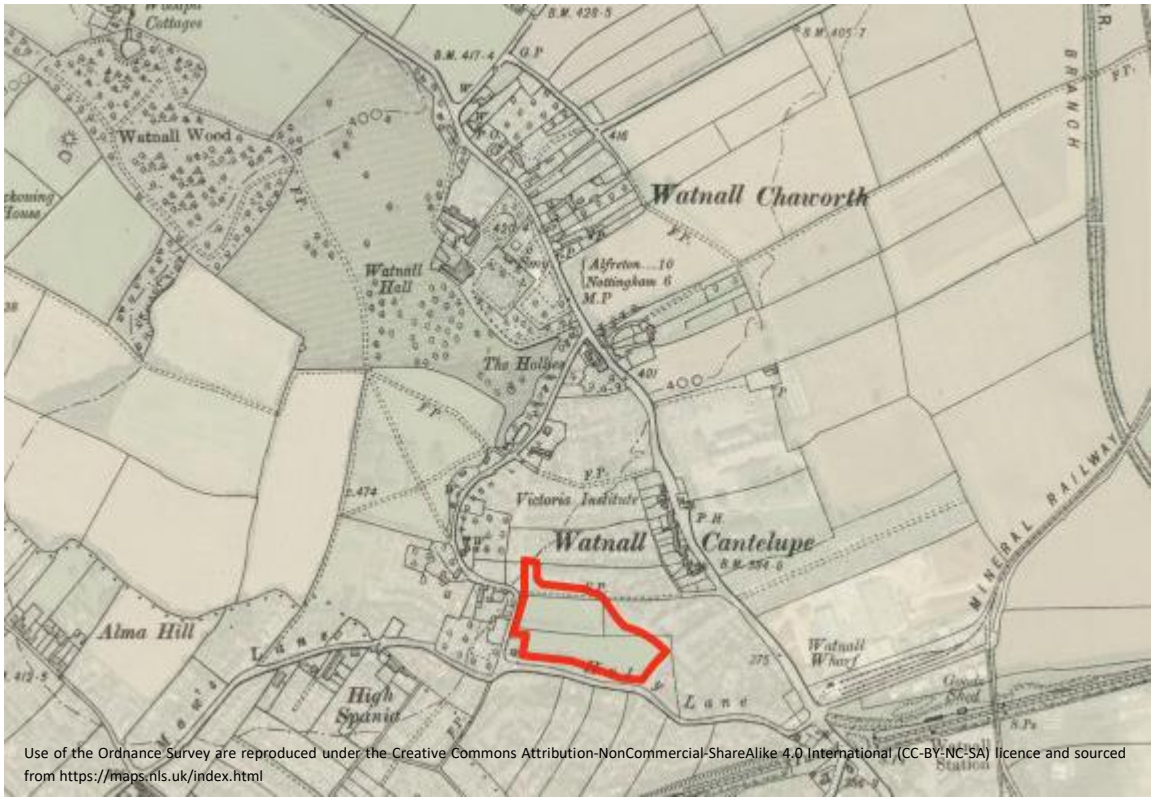
| Common Name | Scientific Name |
|---|---|
| ***Grasses & Forbs*** | |
| Annual Meadow-grass | *Poa annua* |
| Bluebell, English | *Hyacinthoides non-scripta* |
| Bramble | *Rubus fruticosus agg.* |
| Brome, hairy | *Bromopsis ramosa* |
| Brome, soft | *Bromus hordaceus* |
| Buttercup, bulbous | *Ranunculus bulbosus* |
| Buttercup, creeping | *Ranunculus repens* |
| Buttercup, meadow | *Ranunculus acris* |
| Celandine, lesser | *Ranunculus ficaria* |
| Cleavers | *Galium aparine* |
| Clover, red | *Trifolium pratense* |
| Clover, white | *Trifolium repens* |
| Cock's-foot | *Dactylis glomerata* |
| Common chickweed | *Stellaria media* |
| Cow parsley | *Anthriscus sylvestris* |
| Crocus | *Crocus* sp. |
| Daisy, common | *Bellis perennis* |
| Dandelion species | *Taraxacum officinale agg.* |
| Dock, broadleaved | *Rumex obtusifolius* |
| Fescue, red | *Festuca rubra agg.* |
| Fescue, tall | *Festuca arundinacea* |
| Garlic mustard | *Alliaria petiolata* |
| Hogweed, common | *Heracleum sphondylium* |
| Ivy | *Hedera helix* |
| Meadow foxtail | *Alopecurus pratensis* |
| Meadow-grass, rough | *Poa trivialis* |
| Meadow-grass, smooth | *Poa pratensis sens.lat.* |
| Nettle, common | *Urtica dioica* |
| Oatgrass, false | *Arrhenatherum elatius* |
| Plantain, ribwort | *Plantago lanceolata* |
| Ryegrass, perennial | *Lolium perenne* |
| Sorrel, common | *Rumex acetosa* |
| Sweet vernal grass | *Anthoxanthum odoratum* |
| Thistle, creeping | *Cirsium arvense* |
| White dead-nettle | *Lamium album* |
| Woundwort, hedge | *Stachys sylvatica* |
| Yorkshire-fog | *Holcus lanatus* |
| ***Trees & Shrubs*** | |
| Birch | *Betula* sp. |

| Common Name | Scientific Name |
|---|---|
| Elder | *Sambucus nigra* |
| Field maple | *Acer campestre* |
| Hawthorn, common | *Crataegus monogyna* |
| Hazel | *Corylus avellana* |
| Holly | *Ilex aquifolium* |
| Hornbeam | *Carpinus betulus* |
| Lime | *Tilia* sp. |
| Oak | *Quercus* sp. |
| Rowan | *Sorbus aucuparia* |

NB: This is not to be considered a comprehensive list of the vegetative species at this site

## Appendix 4: Historical Map

Nottinghamshire XXXVII.NE (includes: Greasley; Hucknall Torkard; Revised: 1899, Published: 1901. The red polygon highlights the existing boundary lines of Watnall Green LNR.






The image below shows layers of the historic map and existing aerial footage, allowing the landscape changes to be visualised.