

## Brocks Hill Country Park Management Plan 2018 - 2022



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## **1.0 Introduction**

### **1.1 Foreword**

The Brocks Hill Country Park Management Plan covers the five year period from 2018 to 2022. The previous version of the Brocks Hill Management Plan was written in 2014, entitled Brocks Hill Country Park and Centre Management and Development Plan. The majority of the habitat management information originated from the historical Habitat Action Plan (2006), which was an update of the original Management Plan from 2001. A selection of information from the previous management plan and the Habitat Action Plan has informed the new updated and improved management plan.

The new management plan recognises the value of the historical and biological aspects of Brocks Hill, with a focus on appropriate and sustainable management. The knowledge of the biodiversity of the country park has been and will continue to be expanded to allow targeted conservation management to take place.

Brocks Hill Country Park has received the Green Flag Award for 11 years and is an important natural green space in the borough of Oadby and Wigston. Since opening in 1999, Brocks Hill has been accessible and inclusive, serving as a place of recreation and education for the local community. The mixture of habitats at the country park is valuable for a range of wildlife, with some areas still developing and increasing in their importance for biodiversity. The countryside of Brocks Hill is complemented by the visitor centre; containing a café and facilities, as well as a venue for events and activities.

From the beginning of 2018, Brocks Hill Visitor Centre came under the management of Sports Leisure Management Ltd (SLM). The new partnership arrangement between the Borough Council and SLM has received an investment of £1.2m for improvements to the visitor centre and Parklands Leisure Centre, including café refurbishment and enhanced facilities for physical activities.

## 1.2 Brocks Hill Country Park's Vision

The vision of Brocks Hill Country Park has remained the same since its creation: To protect the countryside, preserve the local landscape and nurture wildlife. Brocks Hill's landscape continues to develop whilst retaining important elements of the traditional farming history of the site. The intention is to conserve and enhance the range of habitats and their associated species to ensure the country park retains its ecological value into the future.

Brocks Hill provides a range of opportunities for visitors to enjoy the countryside, including wildlife watching, recreation, wild play and exercise. Since the country park's creation, it has received increasing interest as a place for informal recreation and can attract over 150,000 visitors per year.

## 1.3 Brocks Hill Country Park Management Objectives

- To provide an accessible and welcoming country park for all visitors.
- To maintain and enhance the biodiversity of the country park through appropriate and sustainable habitat management.
- To continue to achieve the Green Flag Award and other awards such as Natural England's Country Park Accreditation.
- To work with volunteers and the community to help manage and improve the country park for people and wildlife.
- To provide a venue for activities and events, including educational wildlife sessions and school groups.

## 2.0 Site Information

**Site name:** Brocks Hill Country Park

**Location Grid ref:** SP619996 (Brocks Hill Visitor Centre)

**Owner and Local Planning Authority:** Oadby and Wigston Borough Council freehold.

**Site status:** Country Park and County Local Wildlife Site (additionally, the adjacent Lucas Marsh is a Local Nature Reserve).

**Area:** Brocks Hill covers an area of 27.40 Hectares (67 acres). The Country Park provides the largest element of the Oadby Brocks Hill ward, with the total amount of open space in the borough covering 373.04 hectares.

Brocks Hill Country Park is an urban fringe site and forms part of the 'Green Wedge' between Oadby & Wigston and the wider countryside. To the north is Leicester (the city centre is 5 miles away), to the northwest is Wigston, to the northeast is Oadby and to the south is arable farmland.

**Local planning authority:** Oadby and Wigston Borough Council, within Oadby Brocks Hill Ward.



**Community Forum:** Friends of Brocks Hill (an independently constituted and managed group, originally established with support from the Council in 2010).

**Date of opening:** Brocks Hill Country Park was officially opened in 1999.

**Rights of access:** The site is open public access at all times. The park can be accessed from foot by Washbrook Lane to the north, from behind Parklands Leisure Centre and from a permissive footpath linking Tendring Drive to the south of the park (Public Right of Way C26). Car parking is free and is situated adjacent to the visitor centre, approached via Washbrook Lane.



**Figure 1. Bird's eye satellite image of Brocks Hill Country Park**

**Contacts:**

Brocks Hill Country Park, Washbrook Lane, Oadby, Leicestershire, LE2 5JJ.

Website: [www.oadby-wigston.gov.uk](http://www.oadby-wigston.gov.uk)

Customer services number: 0116 288 8961

## 2.1 Site Description

### 2.2 Landscape Character and Soils

Brocks Hill is part of the Oadby and Wigston Vales that cover most of the borough. The landscape is characterised by gently rolling topography with established field boundaries and a series of regularly spaced watercourses running south and west towards the rivers Sence and Soar.

Throughout the borough, there is an underlying solid geology of Lower Lias clay shales and limestone broken up on the surface by lower lying alluvium in the valleys and broad areas of exposed boulder clay ridges. Brocks Hill's soil is primarily clay (brown clay with flint and Leicestershire Blue marl clay below), with some running sand towards Lucas Marsh and the Washbrook. .

In general, the urban edge is well screened and integrates well with the surrounding countryside. This is due to a combination of well-vegetated field boundaries comprising of tall hedgerows and hedgerow trees, as well as the rolling topography, with views towards Charnwood Forest in the distance.



Figure 2: Satellite image of Brocks Hill Country Park

### 2.3 Landscape and Cultural History

The site at Brocks Hill has been influenced by farming practices for hundreds, if not thousands of years. An archaeological survey undertaken in 1999 by the University of Leicester Archaeological Services found evidence of Bronze Age and medieval activities at Brocks Hill. Probable Bronze Age flint scrapers and shards of medieval and post-medieval pottery were discovered on site as well as the presence of highly visible medieval ridge and furrow within the park.

Auction papers from 1874 advertise the site of Brocks Hill as an attractive family residence consisting of a mansion house, stables, a coach-house and gardener's cottage with extensive views across Leicester to Charnwood Forest. Brocks Hill was listed as possessing eleven enclosures of excellent grass and meadow land, one enclosure of arable land, large ornamental and kitchen gardens, glass houses and fruit orchards.

Records dating back to the start of WW2 (from Mr W.J. Allen) document the landscape of Brocks Hill at the time, then owned by the Nichols family under the name of Grange Farm. Traditional farming methods maintained habitats rich in wildlife, with regular sightings of badgers, foxes, cuckoos and kingfishers as well as clouded yellow butterflies in one year. Observations of orchids, snipe and nesting lapwings were made on the marshy grasslands. Heavy horses were used to plough and harvest hay and crops, with local villagers helping to load carts and stook sheaves of corn to dry in the fields.



**Figure 3. Aerial photo of Grange Farm from the 1960's**

Duncan Lucas took over managing the land from the Carmichael family after the farmhouse stood empty for some years following the Nichols family's occupation. The farmhouse was demolished around 1970, with a barn and outbuildings being built following on from the purchase of the site by Mr Lucas from the Carmichael family. The land continued to be farmed, however with changes in agricultural practices, chemical sprays were applied to pasture and arable crops and some scrub patches and hedges were grubbed out to enlarge fields. However, hedge laying, tree planting and pond creation was also undertaken across the site. Housing developments gradually advanced around three sides of the country park, changing Brocks Hill from a rural site to a suburban one.



Brocks Hill was purchased by Oadby and Wigston Borough Council in 1989 and the land was opened to the public as a country park in 1999. The Visitor Centre was opened in 2001, built on the site where the farmhouse once stood.

The site was most recently farmed by the Pierce family before and after the council purchased the land from Mr Lucas. Modern intensive agricultural techniques would have continued to alter the nature and character of Brocks Hill; including use of chemical pesticides and fertilisers, efficient field seeding and cropping systems and less emphasis on traditional hedge laying. During the time the country park was open the farmland was part of a Countryside Stewardship Agreement, with incentives to retain field margins and maintain grassland habitats.

Although livestock and arable farming ceased on the site in 2012, today the majority of grassland (12.1ha) at Brocks Hill is covered by the Basic Payment Scheme. The eligible areas are assessed by land agents Andrew Granger and Co, who manage Brocks Hill's applications to the Rural Payments Agency.

Today, Brocks Hill County Park has retained a range of established farmland habitats including hedgerows, hedgerow trees, an orchard, field ponds and small spinneys. Woodland planting across a large proportion of the site has introduced an additional habitat to the park, with new garden planting reviving a feature once present many years ago. Links to the historic and traditional farming history of the site will be maintained, with conservation of grasslands cut as hay meadows, hedges laid and orchards managed for fruit production and wildlife.

## **2.4 Wildlife**

Over 576 animal and plant species have been recorded at Brocks Hill, with all records being added to Naturespot; the biological recording platform for Leicestershire and Rutland. The majority of wildlife at Brocks Hill is common, with occasional records of less common species. The species list currently stands at 69 bird species, 14 mammal, 22 butterfly, 65 moth, 61 bee and wasp and 163 plant species and varieties. The full species list is attached in Appendix 2. It is hoped that these records of biodiversity will increase as more taxon groups are focused on and additional survey effort is made for particular groups where specialist knowledge from the Park Warden and survey volunteers exists.



**Figure 4. Orange-vented Mason Bee *Osmia leaiana*, discovered at Brocks Hill in June 2017, a first record for Leicestershire on Naturespot**

Bird, bee, butterfly and botanical surveys are regularly undertaken at Brocks Hill. Butterfly surveys have been carried out weekly on a fixed-route transect from April to September since 2007, with data collected and sent to the UK Butterfly Monitoring Scheme by a dedicated and specialist volunteer, David Foulds. The annual Brocks Hill Butterfly Report is also written by David, with interesting data and high quality photographs contributing to interpretation on site. Bird surveys are undertaken along a fixed-route transect throughout the year at least once a month by another dedicated and specialist volunteer, Steve Turner. The data from these surveys aren't submitted to any recording programmes but have the potential to inform habitat management at the country park and keep an important record of species' abundance and distributions. Bees are surveyed on a fixed-route transect as part of the Bumblebee Conservation Trust's BeeWalk once a month from March to October, led by the Park Warden with additional help from volunteers.

Botanical surveys have been carried out sporadically, with historical records from 2000 and 2007. Surveys of Brocks Hill's plant species and 1m quadrat surveys of the botanically interesting semi-improved grasslands were carried out in 2017. Additional surveys undertaken at Brocks Hill include: bat surveys with the help of Leicestershire & Rutland Bat Group, gall surveys by members of The British Plant Gall Society and fungi surveys by the Leicestershire Fungi Study Group.

Additional survey projects have included an informal study of Muntjac deer at Brocks Hill by a local resident in 2012 and a study of Three-spined sticklebacks present in the ponds by Leicester University students in 2011.

Further survey volunteers will be encouraged in order to harness specialist knowledge and to teach identification skills to novice surveyors.

### **3.0 Site Evaluation**

#### **3.1 Position in ecological/geographical/socio-economic unit**

Prior to extensive urban development throughout Oadby and Wigston, Brocks Hill Country Park was similar in character to the rest of the surrounding landscape when traditional, non-intensive methods of mixed farming were in use. Today, only the southern boundary of Brocks Hill borders open arable countryside, with a school and private residences surrounding the rest of the site. The southern ditch and hedge boundary of the site forms part of the original boundary between Oadby and Wigston before they were combined into one borough.

Many of the residences bordering the park have large gardens that are likely to provide additional valuable habitats for wildlife that uses Brocks Hill. Lucas Marsh Local Nature Reserve (LNR) is managed by the Leicestershire and Rutland Wildlife Trust. Oadby and Wigston Borough Council own the site and have an existing lease based on a historical lease with LRWT. The site is 2.9ha in size and is situated adjacent to the northeast corner of Brocks Hill, hosting young woodland, open water and reedbed habitats. Lucas Marsh may act as a refuge for some of the species at Brocks Hill (e.g. badgers), particularly as no dogs are allowed on the reserve.

Brocks Hill Country Park provides a fine example of traditional habitats and young woodlands within the local vicinity: it was designed to contain a range of habitats for the benefit of wildlife and enjoyment of visitors. The site offers an extremely important resource for local wildlife, with nature conservation a management priority. The size of the country park (27.4ha) is important within the suburban environs, as Oadby and Wigston has 34.62ha of natural green space throughout the borough. 90% of borough residents live within 3.2km of Brocks Hill, magnifying its local value.

#### **3.2 Diversity**

Brocks Hill Country Park contains a diverse mosaic of habitats across a relatively small area. These include an orchard, small ponds, hay meadows, hedgerows, young woodland, mature trees, rough grassland and scrub. There is a diverse range of wildlife associated with these habitats, with the potential for new species to colonise as habitats develop and mature, such as the woodlands. Habitat management aims to ensure that they are maintained appropriately, retaining and enhancing important features.

#### **3.3 Naturalness**

Brocks Hill's habitats have been moulded by humans for many years, but can resemble more natural habitats. Historically, the countryside on and surrounding the site would have been farmed for hundreds of years; today, fragments of these semi-natural habitats remain. The woodland compartments have been deliberately planted, but contain native species that have the potential to replicate semi-natural woodlands, especially as they develop and mature. Although maintained with the use of machinery and by hand, the habitats of Brocks Hill have elements of semi-naturalness in their character that will be enhanced through appropriate management.

The traditional farm habitats of orchards, ponds, hedgerows, meadows and woodland areas can recreate a mosaic of more natural habitats that support a wide diversity of well-adapted native species. The oldest semi-natural habitats at Brocks Hill are the hedgerows, containing mature trees and

the old hay meadow (National Vegetation Community MG5 grassland: Crested dog's-tail *Cynosurus cristatus* – Common knapweed *Centaurea nigra* community), supporting a diverse range of species.

### 3.4 Biodiversity and Rarity

The majority of wildlife found at Brocks Hill is relatively common throughout Leicestershire, however habitats such as woodland and species-rich meadows are reasonably rare across the borough and county. Woodland covers 4% of Leicestershire and Rutland, with broadleaved woodland cover at only 1.8%. The Borough of Oadby and Wigston has a relatively small proportion of rural land, with tiny pockets of woodland, therefore the wooded compartments of Brocks Hill contribute to the overall woodland cover of the borough and the wider county. Species-rich neutral grassland covers just 1,165ha of Leicestershire and Rutland; a small area for a nationally important habitat. The medieval ridge and furrow field is a rare feature within the borough and the county and should be conserved for future generations. The countryside of Brocks Hill Country Park represents an important proportion of semi-natural habitats in the borough.

The protected species at Brocks Hill include Badger (Protection of Badgers Act 1992), Grass snake, Common toad, Common frog, all bat species and all bird species under the Wildlife and Countryside Act 1981. Eleven Red List bird species have been found on site: Song thrush, Mistle thrush, Starling, Skylark, Woodcock, Fieldfare, Redwing, House sparrow, Grey wagtail, Linnet and Yellowhammer. Eleven Amber List species have also been found on site: Black-headed gull, Stock dove, Tawny owl, Swift, Kingfisher, Kestrel, House martin, Willow warbler, Dunnock, Bullfinch and Reed bunting. Common spotted orchid is the rarest plant species at the country park, with a small number of flowers growing in the Wildflower Meadow at the south of the site.



**Figure 5. Common spotted orchids growing on the Wildflower Meadow**

The following Leicestershire Biodiversity Action Plan Habitats are found at Brocks Hill, and the combination of these form a rich mosaic of important habitats: Broadleaved woodland, eutrophic standing water, hedgerows, mature trees and neutral grasslands.

A number of UK BAP priority species are found at Brocks Hill, these are:

**Birds:** Skylark, Linnet, Yellowhammer, Reed bunting, House sparrow, Bullfinch, Starling and Song thrush.

**Mammals:** Noctule bat, Soprano pipistrelle bat and Brown hare. All bat species are covered under the local BAP: Common pipistrelle and Soprano pipistrelle are classed as common and Noctule is classed as uncommon in Leicestershire.

**Herptiles:** Common toad and Grass snake

**Moths:** Dusky thorn, Ghost moth, Buff ermine and Cinnabar moth

The field pond (Compartment 2d, grid ref. SP621994) located to the southeast of the site was selected as a Local Wildlife Site (LWS) in 2006, due to the presence of over 10 Smooth newts. 15 Smooth newts were recorded in April 2005 and are still frequenting the pond, as 10 newts were recorded in March 2017.

### 3.5 Fragility

The habitats at Brocks Hill require regular management to ensure they are maintained in an appropriate condition to be suitable for the widest range of species possible. Some of the habitats are not as fragile as other extremely rare habitats in the UK and can endure some time without management; however, every feature of Brocks Hill is important and should be conserved. The most fragile habitats that suffer from neglect if not managed annually are the hay meadows and the ponds at the front of the visitor centre. Regular, appropriate maintenance of these habitats is a key part of their management prescriptions to ensure floral and faunal diversity is maintained and enhanced. Mature trees can also be fragile features, being relatively few in number across the country park: they can be vulnerable to pests, diseases and wind damage. As well as the negative effects on wildlife, the loss or degradation of key habitats could also compromise visitor's perceptions of the country park; therefore high standards should be maintained to uphold public support and interest.



**Figure 6. Small tortoiseshell butterfly: this species has experienced a 400% growth in numbers over the past decade at Brocks Hill. Key habitat management involves preserving their foodplant, stinging nettles.**



### **3.6 Typicalness**

Brocks Hill Country Park exhibits the typical character of the historic Leicestershire countryside, with the mosaic of traditional habitats representing a fragment of what has been lost across much of the county. The park enables visitors to experience the countryside and wildlife within an urban environment, as well as being unique within the county as the only country park with free car parking.

### **3.7 Intrinsic Appeal**

Brocks Hill is an important natural green space in a mainly urban matrix, valuable to wildlife and visitors. Local people value Brocks Hill as a tranquil place, part of the countryside, yet it is easily accessible from the towns and the city. The variety of habitats and associated species in a relatively small area make Brocks Hill unique in the borough and the wider countryside. Features including the visitor centre, café, events, play areas and den building areas provide enjoyable experiences for a range of visitors, including families.

### **3.8 Potential Value**

Brocks Hill should continue to provide an important resource for wildlife and visitors. The wildlife habitats will continue to develop and, with appropriate management, flourish. The woodlands are a key habitat on the site that will continue to improve as they grow. There is potential for further habitat creation and enhancement at the country park, subject to resources: hay meadows can be enhanced with additional wildflower species, woodland compartments can be diversified with additional planting of whips and native wildflower bulbs and dead wood habitats can increase.

Brocks Hill should continue to endeavour to educate the public about the resident wildlife and how habitats are managed. The country park should also continue to be a venue for providing educational and enjoyable sessions focussing on nature, crafts, health and wellbeing.

### **3.9 Threats**

Brocks Hill Country Park offers open access all year round, attracting a wide audience of users. Conflicts between people and wildlife have the potential to occur at a site that receives a high number of visitors, especially during the spring and summer. Recreational use of the site could cause disturbance to wildlife, despite Brocks Hill maintaining a 'dogs under close control' policy at all times. Disturbance by dogs may affect nesting birds, small mammals and even aquatic species when they enter ponds. Incidents of vandalism such as damage, fire and graffiti can occur and may affect seating, signage, structures and plants including trees.

Brocks Hill contains relatively small habitat pockets amongst a matrix of urbanisation and intensive farmland. This habitat fragmentation can affect the movement of wildlife between the site and the surrounding areas. For good connectivity, wildlife corridors such as hedgerows, field margins and strips of grassland are important for a range of wildlife to use; if these habitats aren't present or well managed, the migration of species can be compromised.

Light pollution from the urban areas surrounding the park may affect nocturnal wildlife, especially bats. Security lighting around the centre may also discourage some bats from feeding on and around the ponds. Other potential negative impacts from neighbouring residential areas could include: land encroachment, dumping of garden waste and domestic cats predating wildlife in the park.

Further risk from additional development lies with fields adjoining the south of the site having been sold in 2013. Increased pressure from higher footfall and negative effects from extra adjacent housing (e.g. light pollution) could cause potential issues in the future. Further development would also mean the country park would be an island of semi-natural habitats in an almost entirely urban matrix.

#### **4.0 Habitat Summaries and Sizes**

##### **4.1 Surrounds of Brocks Hill Centre and Garden beds**

There are a number of habitat features surrounding the visitor centre, including the garden areas.

##### **4.2 Ponds**

There are six ponds around Brocks Hill of varying quality and size.

##### **4.3 Community Orchard**

The Community Orchard is located to the west of the visitor centre and contains a variety of fruit trees and wildflower filled grassland across 1.18ha of land. The area covered by fruit trees is 0.63ha.

##### **4.4 Woodland and Scrub**

Woodland covers 8.4ha of the country park, consisting of predominantly native broadleaved species, with occasional coniferous and non-native specimens. Scattered scrub is present adjacent to woodland blocks.

##### **4.5 Grasslands**

The grasslands at Brocks Hill consist of amenity, improved and semi-improved neutral grasslands. Of the semi-improved grasslands, there are 3.58ha of species poor grasslands (including the ridge and furrow fields) and 5.24ha of more species-rich grasslands. One of the hay meadows (2.1ha in size) is classed as an improved grassland and there are 0.3ha of amenity grasslands.

##### **4.6 Hedgerows and Mature trees**

There are approximately 2.5km of hedgerows within Brocks Hill Country Park, however around 150m of hedgerows are defunct due to the close proximity of woodland planting.



**Figure 7. Brocks Hill's range of habitats provide interest throughout the seasons**

## **5.0 Public Benefit and Use**

### **5.1 Recreation**

### **5.2 Opening times**

Brocks Hill Country Park is open access all year round, with free parking facilities available 24 hours a day. Entry to the Visitor Centre and café is free and open for the majority of the year.

### **5.3 Visitor Access**

The site is open access at all times and is well visited by local people, dog walkers and school, college and university groups. Visitor profiling has found that customers generally travel 3-10 miles to Brocks Hill. There is a network of gravel paths, bark paths and grassy rides throughout the park. The large meadows and ridge and furrow field are accessible around the perimeters and additional desire lines run through the woodland compartments. The hard surfaced paths are 3m wide and allow low mobility, wheelchair and pushchair access around the majority of the park. The informal paths are prone to become muddy and waterlogged throughout winter, due to the heavy clay soil and high amount of usage.

A permissive Right of Way (RoW) has been in place since 2003 and links the southern boundary of the park to Tendring Drive (footpath C26), increasing access to Brocks Hill from the surrounding residential areas. Options are currently being explored to allow a right of way on the surfaced path leading to Glenmere Primary School from Tendring drive, with an opening into the country park slightly further west of the current access point. A right of private access exists on the farm track running through the site for access to farmland to the south of the park.

The car park adjacent to Brocks Hill provides 39 parking spaces and 5 disabled spaces. Over 100 more spaces are available adjacent to Parklands Leisure Centre, with a further 150 planned to increase capacity as part of the developments to the visitor centre.

### **5.4 Facilities**

- Brocks Hill Visitor Centre contains toilets (including disabled toilets and baby changing facilities), a café, a meeting room and large activities space.
- Children's play area for 2-8 year olds.
- Natural play area for older children.
- Orienteering course.
- Human Sun Dial feature.
- Four strategically sited litter bins around the visitor centre and natural play area. Extra litter bins are sited around the car park.
- Eight strategically sited dog bins throughout the country park, with a further three bins sited adjacent to entry routes; emptied twice weekly.
- Environmental art in the form of sculptures around the park.
- Sponsorship opportunities: Benches, trees, bird boxes and bat boxes have all been sponsored at Brocks Hill. The Memorial Tree sculpture is managed by The Friends of Brocks Hill and provides an opportunity for people to sponsor an engraved metal leaf.

- The Park Warden is based off-site but is present on site Monday to Friday, carrying out litter and safety checks and communicating with visitors, as well as undertaking site maintenance.

### 5.5 Events

Brocks Hill Country Park and Visitor Centre have hosted a wide variety of events over the years, with a focus on the environment, health and wellbeing. Previous events have included the following:

- **Garden Party:** The first Brocks Hill Garden Party was held in June 2015 and continued to be held during the summers of 2016 and 2017. The first three events were achieved with funding from the Edith Murphy Foundation focussing on Brocks Hill as the home of the natural environment. Stalls include crafts, plants, wooden products, charities such as the RSPB, music by local musicians and brass bands as well as walks and talks by local wildlife experts.
- **Friends of Brocks Hill Food Fayre:** The Friends of group organise an annual food fayre in the visitor centre, with stalls selling a range of food products, crafts and apples from the community orchard. There is a range of produce to buy and taste, including vegan and vegetarian food and local groups such as the Master Gardeners and Morsbags in attendance.
- **Doggy Day:** Doggy Day is a fun dog show delivered in partnership with Wigston Magna Dog Training Club, with proceeds going to charities such as Medical Detection Dogs. Members of the public can take part in a variety of fun classes with an agility course to try and stalls to visit.
- **Cross Country events:** These include the Lion's Club Cross Country Challenges that have taken place during winter.

### 5.6 The Jubilee Amphitheatre

The Jubilee Amphitheatre is a natural performance space in the heart of the park, developed in 2013. Located in a natural clearing adjacent to the large play area, the amphitheatre contains a raised mound with tiers sculpted into the earth. A giant wooden seat constructed from wooden sleepers dominates the performance space and was sponsored by The Lion's Club.

The space is utilised for performances by theatre and music groups, including local brass bands and musicians at Brocks Hill's garden parties. Previous performances held at the amphitheatre include storytelling, puppet theatres, 'The Smartest Giant in Town' and 'A Midsummer Night's Dream'. The space is also used as a meeting point for families, picnics and fitness groups using the park.



**Figure 8. The Jubilee Amphitheatre**

### **5.7 Leisure use**

The main health and leisure activities regularly carried out at the country park include walking, running, cycling, informal ball games, den building and use of the play areas. Parklands Leisure Centre is located to the northwest of the country park, complete with a gym and a swimming pool. The new arrangement with Brocks Hill Visitor Centre and SLM will provide visitors to the area with a range of activities.

### **5.8 Community Links**

A variety of groups meet formally and informally at Brocks Hill and have a sense of pride and ownership of the Country Park. This includes special interest natural history groups, orienteering and walking groups, tai chi and fitness clubs, local children's nurseries and regular dog walkers. Many group visits have a focus on health and wellbeing, including the regular group of walkers that meet every week at Brocks Hill and a group of mums with buggies that walk and exercise around the park. Visitor feedback has helped inform and develop features in the park, such as parts of the play areas. The park is an important meeting place for friends and families throughout the year.

#### **- Friends of Brocks Hill**

A dedicated 'Friends of' group was set up in October 2010 with local residents and accepts new members through their membership scheme. The group is separately constituted and managed, with the aim of improving Brocks Hill Country Park. Its objectives are:

- To raise funds and receive contributions for agreed activities and projects within the Brocks Hill complex.
- To carry out and promote both environmental improvement and practical conservation, to educate, encourage and support the local population in environmental practice.



- Promoting community recreation and play facilities.
- Promoting the health and well-being of the residents of the area and working together, involving local people in improving the area.

In the past the group have run events such as Bird, Bee and Butterfly Day, Apple Day and Brocks Hill Food Fayre, as well as book sale days. The group have paid for sculptures, donation boxes and activities to help enhance the country park.



**Figure 9. The sculptured slug bench at Brocks Hill; funded by the Friends of group and created with the help of sculptor Peter Leadbeater and students from Millgate School.**

### **5.9 Formal Education**

Brocks Hill provides a venue for the delivery of educational packages to schools, with visits coming from across Leicestershire. The educational programme is organised and delivered by SLM, offering a range of learning opportunities for schools and the community within the country park. The directed and self-led educational activities on offer are suitable for reception age to KS2 level children and include activities such as pond dipping, mini-beast hunts, habitat studies and arts and crafts. Additional walks and talks are provided by the Park Warden, focussing on countryside management and seasonal wildlife, including nesting birds and pollinators. Educational sessions have also catered for a number of schools and programmes supporting at-risk and excluded young people, as well as vulnerable people of all ages. The local Wildlife Watch group (the junior arm of the Wildlife Trust for 6-14 year olds) also holds sessions in the park.

### **5.10 Interpretation**

The interpretation around Brocks Hill Country Park consists of two site maps, a small number of wildlife and habitat information boards and a series of tree trail quiz boards. Interpretation material is also displayed in the visitor centre; this is updated for each season. The interpretation on site does have the potential to be developed, with improved site maps and additional habitat and wildlife information. Priorities for interpretation material include information about the community orchard, the developing

woodlands and the wildlife of the hay meadows. The main aims of Brocks Hill's interpretation should be to provide clear, easy-to-use maps, inform visitors about the current and historical land use of the country park and the variety of wildlife and the importance of their habitats.

### **5.11 Marketing**

Brocks Hill Country Park's main forms of marketing are via the website and through the council's own publication 'Letterbox', which is delivered to all 22,500 households in the borough. Brocks Hill received its first Green Flag Award in 2007 and has continued to achieve this each year since: the flag flies just outside the centre, informing visitors that the country park is a green space of excellence. Extensive information regarding things to do and see at Brocks Hill is easily accessible on the website and updated regularly. Detailed seasonal information regarding the wildlife and works being undertaken in the park is displayed inside the visitor centre.

Social media is utilised, with Facebook updates informing visitors about the latest news, activities and points of interest in the park. Information about events and activities is advertised through local publications, websites and social media, as well as with posters and displays in the visitor centre and on noticeboards throughout the country park.

### **5.12 Volunteering Opportunities**

Volunteering within the country park has been running since 2001, with volunteer numbers currently at their highest level ever. Over 200 hours are donated a month by a range of volunteers, including the weekly conservation volunteers, wildlife survey volunteers, gardening volunteers and corporate volunteers. Volunteer effort has previously been recognised by East Midlands in Bloom.

The Natural Discovery Volunteer Development Programme commenced in October 2015 and reached completion in February 2018. Supported by the Heritage Lottery Fund, which granted over half of the required funding, Oadby and Wigston Borough Council provided for the remainder of the project, alongside additional donations from the Friends of Brocks Hill, Oadby Village Hall, the Florence Turner Trust and the Edith Murphy Foundation.

The project focussed on enhancing the volunteering opportunities in the borough, with practical conservation tasks to manage the council's natural green spaces: Brocks Hill Country Park, Fludes Lane, Pochin's Bridge and Clifton Bridge. The aim of the programme was to promote and increase the opportunities for new and existing volunteers, with additional tasks, projects and training available. A key part of the project was to engage with local communities and increase the diversity of volunteers, providing opportunities for a range of people, including young and harder to reach groups.

Funding from the project has enabled the purchase of a range of tools and equipment for conservation tasks, as well as the electric van, which is used to transport tools and volunteers to the natural green spaces. Essential equipment includes: a pond maintenance boat, two electric brushcutters, bowsaws, loppers, wheelbarrows, a range of gardening materials and PPE such as protective gloves and steel toe capped boots. Throughout the course of the project, roles were provided for two Natural Discovery Volunteer Project Officers and one Administration Officer, with some volunteer task days being contracted out and led by TCV (The Conservation Volunteers).



**Figure 10. New volunteers working as part of The Natural Discovery Volunteer Development Programme**

Throughout the programme, a number have targets have been achieved:

- Increased numbers and diversity of volunteers.
- Training up Lead Volunteers to assist with leading groups on volunteer days.
- A number of training courses delivered to volunteers, including First Aid, Risk Assessment training, Equality and Diversity training, Safeguarding training, Sharps training and practical courses for woodchipper and brushcutter operation.
- Opportunities for volunteers to increase their knowledge of wildlife and wildlife surveying techniques.
- A greater number of volunteering task days at natural green spaces across the borough.
- Volunteer celebration events and taster days.

Conservation volunteer tasks are run weekly by the Park Warden and involve a range of seasonal activities to improve Brocks Hill and the borough's other natural green spaces for people and wildlife.

Spring and summer tasks include:

- Maintaining flower beds and raised vegetable beds
- Path and boardwalk maintenance
- Weed control
- Cutting and raking of meadows
- Treating benches, fencing and knee rails
- Light trimming of path-side vegetation
- Maintenance of orienteering posts
- Litterpicking

Autumn and winter tasks include:

- Scrub cutting
- Coppicing
- Hedgelaying
- Small tree felling
- Woodchipping
- Clearing branches after woodland thinning operations
- Creating log piles
- Burning brash
- Pond maintenance
- Planting of bulbs, shrubs and trees
- Fruit tree pruning
- Crown raising of trees
- Installing bird and bat boxes
- Litterpicking

Wildlife survey volunteers give their time throughout the seasons, recording a range of wildlife at Brocks Hill. Butterfly, bee, botany and bat surveys take place in spring and summer, fungi and galls take place in autumn and bird surveys are carried out all year round.

Students from South Leicestershire College (SLC) volunteer fortnightly at Brocks Hill, maintaining the raised beds and other garden areas. Their tasks are planned and supervised by a lead volunteer who organises the growing of vegetables, fruit and flowers for the students and the local community. Corporate volunteering tasks occur quarterly at Brocks Hill, with the Park Warden carrying out important maintenance tasks alongside volunteers from local company Charnwood Foods.

Previous volunteering has also included: 30 young people from the National Citizenship Scheme (NCS) donating over 600 hours of time surveying Brocks Hill's visitors during 2013 and a work placement student successfully receiving one on one training throughout the winter and spring of 2017 to acquire over 60 hours of work experience.

### **5.13 Funding**

Brocks Hill Visitor Centre and the surrounds were created as a result of a successful bid to the Millennium Commission that acquired £939,000 of match funding. Historic grant schemes that covered areas of the country park include the Countryside Stewardship Scheme and the Woodland Grant Scheme. Additional funding for features and projects at Brocks Hill has been raised by the Friends of Brocks Hill. The most recent funding was received in 2015 for the Natural Discovery Volunteer Development Programme.

## **6.0 Policy Context**

### **6.1 Policy Drivers**

Guidance and policies that can influence the development of Brocks Hill Country Park include:

- The Green Flag Award Scheme

- Natural Environment White Paper (2011): the government's vision for the natural environment over the next 50 years, including focusing on protecting and improving our natural environment and reconnecting people and nature.
- The Localism Bill (2011): emphasises the need for closer community involvement and engagement, leading to a sense of ownership of green spaces by the public.
- The Strategic Health Review (2010): highlighting the role local green spaces can play in improving public health.

## 6.2 Local Policies

- Oadby & Wigston Borough Council's Local Plan: acknowledges the importance of open space within the borough for providing formal and informal recreation.
- **The Council's Corporate Priorities:**
  - An Inclusive and Engaged Borough
  - Effective Service Provision
  - Balanced Economic Development
  - Green & Safe Places
  - Wellbeing for All
- Greening the Borough Strategy (2012-2022): to enhance the green spaces in the borough through improved visual impact, environmental sustainability and engagement with the community.

**6.3 Statutory obligations:** These are of importance to Brocks Hill Country Park and are provided by current government-led legislation, meaning the council has a duty to:

- Protect biodiversity (Section 74 of the Countryside and Right of Way Act 2000)
- Facilitate access for people of all abilities where possible (Disability Discrimination Act 1999).



Figure 11. Six-spot burnet moth: protecting biodiversity is a key management objective at Brocks Hill



## **7.0 Site Management Policies**

### **7.1 Health and Safety**

The health and safety policies at Brocks Hill are reviewed annually by Oadby and Wigston Borough Council to ensure the provision of a safe and healthy working environment. The policies include adhering to COSHH regulations, reporting accidents and first aid procedures for staff and volunteers.

### **7.2 Risk Assessments**

A comprehensive range of risk assessments have been undertaken in order to ensure the work and activities at Brocks Hill Country Park are safe with appropriate control measures in place. The risk assessments are reassessed and updated every 12 months. All risk assessments for practical volunteer work have been reviewed and updated in 2017, with hard copies stored in the barn. All volunteer work is carried out under the direction of the Park Warden. Work by contractors on site is undertaken with provision of risk assessments and insurance details.

### **7.3 Safety Inspections**

Regular inspections are carried out at the park in order to maintain high standards of safety for visitors. These include the following:

- Play areas: Weekly play equipment inspections are carried out by the Park Warden or Grounds Maintenance staff, as well as checking for signs of litter, hazards or graffiti. Annual operational inspections are carried out by trained independent operatives as part of the insurance check.
- Hard structures: Benches, bins and other features in the park are assessed throughout the year by the Park Warden.
- Surfaces: Paths and surfacing under benches are assessed throughout the year by the Park Warden.
- Tree safety survey: Annual tree surveys are carried out by the Tree Officer.

### **7.4 Dogs**

Brocks Hill Country Park has a Code of Conduct for Dogs in order to help reduce conflicts between dogs and park users. Owners are responsible for keeping dogs under control at all times and cleaning up after their dogs. Key parts of the code have been condensed into guidance for dog walkers and displayed on some of the dog bins around the site. Reported dog incidents are recorded by the Park Warden and additional help regarding dog fouling and enforcement is provided by the Environmental Health team's Dog Warden.

From 2017, Oadby and Wigston Borough Council will be implementing a Public Space Protection Order (PSPO) for dogs on open spaces, with a £100 fine for anyone found in breach of the order.

This applies to Brocks Hill:

- All dog fouling must be picked up across the country park.
- Dogs must be put on leads when the owner is requested to do so by an authorised officer.
- Dogs must be kept on leads in areas identified in schedule 1 of the PSPO.
- Dogs must be kept out of dog exclusion areas identified in schedule 2 of the PSPO.

The vast majority of the country park allows dogs off the lead, providing they are under control. The natural play area is an area for dogs on leads (as displayed on the signage) and the small play area, amphitheatre and fenced off picnic area are the only parts of the park where dogs aren't allowed.

## **8.0 Grounds Maintenance**

Brocks Hill's storage barns were built in 2014, and provide secure storage for all vehicles, tools and equipment used at the country park and the off-site natural green spaces. The timber clad steel barns are situated adjacent to the service yard and visitor centre and are divided into three barn spaces. The main barn also provides an indoor space for volunteer breaks and a workshop for tool maintenance.

From 2017, a number of changes were initiated and will continue to result in positive habitat management at Brocks Hill. These include working closely with the council's Grounds Maintenance team to manage compartments appropriately (for example, working as a team to carry out woodland thinning and altering cuts on grassland areas during certain flowering times), gaining a New Holland Boomer 25 tractor and accompanying trailer and a greater emphasis on new and existing biological recording at Brocks Hill to inform the most appropriate habitat management.

### **8.1 Grass cutting**

A regular grass cutting schedule is carried out throughout the growing season to maintain the amenity grass areas and paths around the country park. This is delivered by the Grounds Maintenance team, with additional strimming around benches, gateways and knee rails carried out by the Park Warden. The grass cutting schedule can be found in Appendix 3.

### **8.2 Furniture and structures**

Benches, knee rails, gates and other wooden structures at Brocks Hill are monitored and maintained where required. Appropriate wood treatments are applied throughout the warmer months with the help of volunteers. In 2017, the wooden benches began to be treated with new wood preservative: this will be continued into 2018 and 2019. The wooden boardwalk received structural maintenance in 2016 and new wire was fixed on top in 2017. As the wood ages, the boardwalk will need to be monitored and repaired where necessary. Some knee rails and gateways were also treated in 2017: this will be continued in the coming years to ensure all wood structures are maintained to a high standard. There are over 40 benches of different styles across the country park, the majority of which have been sponsored. At present, there are no suitable spaces for new benches on site, but as the older benches reach the end of their lives, new sponsorship opportunities will be available. The most recently installed sponsored benches and picnic benches are made from recycled plastic, chosen for sustainability and durability.

### **8.3 Habitat boxes**

Bird and bat boxes are an important feature to maintain across Brocks Hill and are discussed in the woodland compartments section. Many boxes have been historically sponsored, although most of these have now rotted and become defunct. New boxes were installed in autumn 2017: three bird boxes and three bat boxes, including a large maternity roost box were fixed onto suitable mature trees. As more trees mature across the country park, there will be further appropriate sites for boxes. Future

management should ensure there are always sufficient nesting and roosting opportunities for birds and bats, as these can be scarce across developing sites and the wider countryside.



**Figure 12. Blue tit investigating a new nest box at Brocks Hill**

#### **8.4 Litter, vandalism and antisocial behaviour**

The regular presence of the Park Warden and Grounds Maintenance staff on site ensures that issues of vandalism/graffiti and antisocial behaviour can be dealt with quickly and efficiently. Incidents can be reported by members of the public via the customer services team or dialogue with the staff on site. Any events of vandalism or antisocial behaviour are communicated to the police as soon as possible and a high police presence is seen around the park, with regular patrols by PCSO's. This can act as an effective deterrent to any prolonged nuisance.

#### **8.5 Bins**

Dog bins are emptied twice weekly by the Clean and Green Grounds Maintenance team and the litter bins surrounding the visitor centre are emptied by staff from SLM. Litter picking is carried out regularly throughout the year by the Park Warden and the volunteers.

#### **8.6 Security**

From Monday to Friday, an on-site daytime presence is provided within the park by the Park Warden and Grounds Maintenance staff. Regular patrols and volunteer parties ensure a visual presence and frequent dialogue with park users. Signage at the entrance to the country park outlines acceptable behaviour from visitors and lists forbidden activities, including camping, barbeques and theft. Reported incidents are recorded and reviewed on a regular basis: the type and frequency of incidences can assist the development of certain management. CCTV cameras are located around the visitor centre, in the play area and outside the barns. Serious incidents are passed directly to the Police, Police Community Support Officers and local travellers' support staff.

Vehicular entrances into the park are kept locked. Opening up sight lines along paths and adjacent to woodlands can improve the feeling of security within the park as they negate the feeling of being enclosed.

### **8.7 Pesticide use**

Pesticide use within the country park is virtually nil to reduce the impact upon the local environment and wildlife. Mechanical methods of weed control are carried out, with only a small amount of herbicide having to be applied to the interior of the Memorial Mound to control weeds that can't be removed by hand. Use of pesticides on site will only ever be considered after all other management options have been explored first, with applications to be carried out by a licensed operator.

### **9.0 Habitat Management Objectives**

- Conserve and enhance the flora and fauna of Brocks Hill Country Park.
- Manage Biodiversity Action Plan habitats appropriately, with consideration of BAP and protected species present at Brocks Hill.
- Continue to manage and enhance habitats for all birds breeding and feeding on site, including Red List species.
- Conserve a wide variety of pollinators on site through appropriate habitat management.
- Increase opportunities for a wider range of species as habitat features develop and mature.



**Figure 13. Starling: a Red List and BAP bird species at Brocks Hill**

## 10.0 Habitat Compartments

Each habitat compartment is listed from page 30, with descriptions of habitat character, associated wildlife, management objectives and management prescriptions.

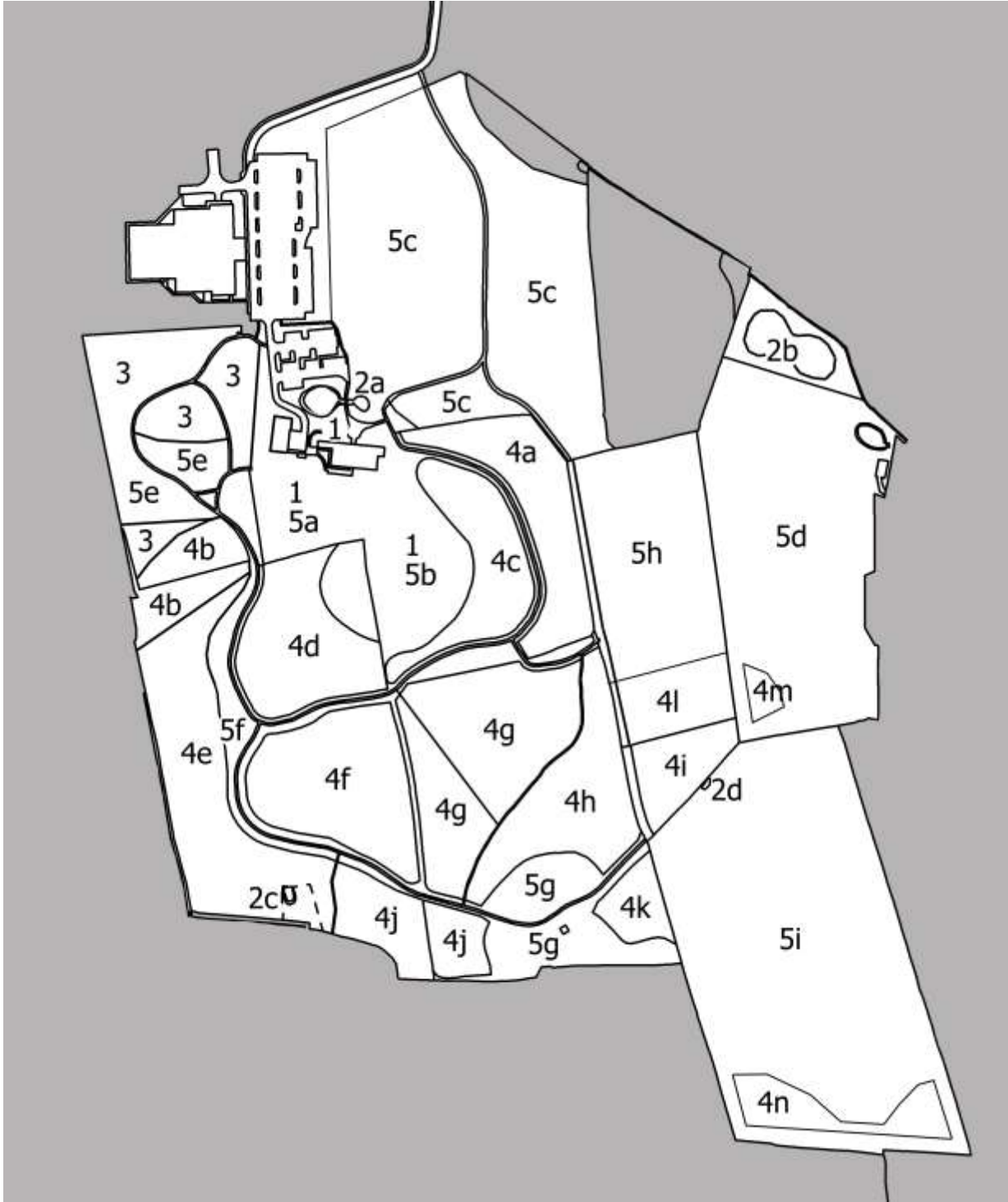


Figure 14. Habitat Compartment Map of Brocks Hill Country Park



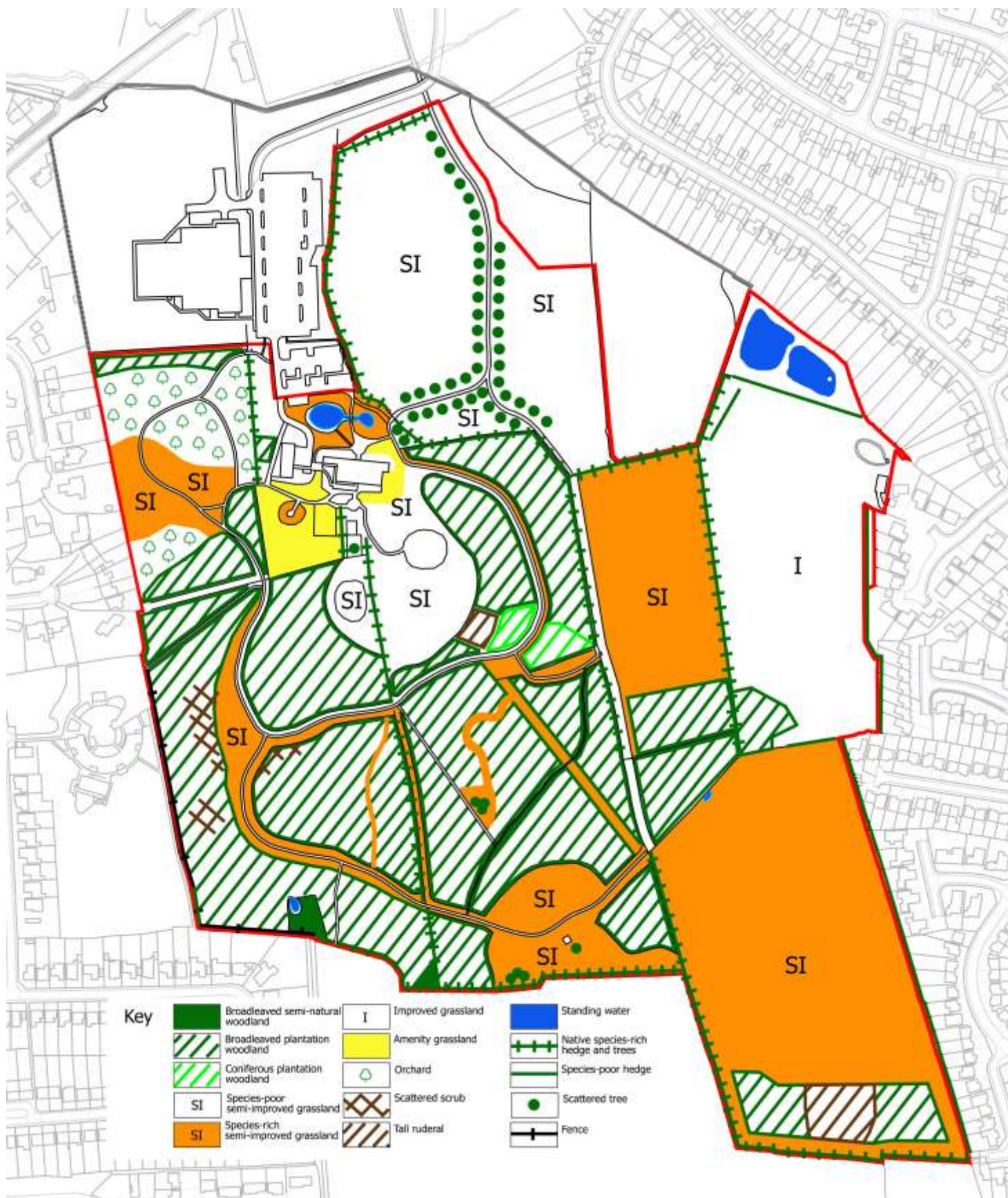


Figure 15. Phase 1 Habitat map of Brocks Hill Country Park, 2018

## 10.1 Compartment 1 – Surrounds of Brocks Hill Centre and Garden beds



**Figure 16. View across the picnic area to Brocks Hill Visitor Centre**

The area surrounding the visitor centre is part of the honeypot for visitors and families at Brocks Hill Country Park. This area contains a variety of features: flower beds, raised beds, earth banks, the memorial mound, children's play areas, the amphitheatre and the picnic area. These features provide a balance between wildlife conservation, recreation, access and education objectives. The whole area offers unrestricted access all year round and provides a welcoming experience for visitors. Many features in this compartment provide opportunities for education within easy reach of the visitor centre: for example, wildlife-friendly planting allows easy observation of pollinators including bees and butterflies and vegetables being grown provide opportunities to educate visitors about growing food.

### **Flower Beds (1a)**

The flower beds are part of the gateway to Brocks Hill Country Park and Centre. The beds surrounding the visitor centre have been developed over the years since the creation of the centre and contain an array of shrubs, perennials, annuals and bulbs with a focus on beauty and attracting wildlife. Key plants for wildlife include buddleia, lavender, geranium, marjoram, pulmonaria, daffodil, primrose, sedum, scabious and hebe.

Plants that are aesthetically pleasing and the most beneficial for wildlife will continue to be encouraged, as will plants that are perennial and low maintenance to enhance the sustainability element of the beds. Annual wildflower seeds are sown in spaces on the beds. The Friends of Brocks Hill rose bed is located by the front doors of the centre and contains sponsored roses, enhanced by pelargoniums and other bedding plants in summer. The entrance bed is easily viewed from the car park and contains shrub planting and annual wildflowers in front of the original Brocks Hill sign.



The flower beds create a welcoming and tranquil atmosphere to visitors accessing Brocks Hill through the main entrance and provide a pleasing backdrop for sitting outside the café. Located at the gateway to the country park, the planting reflects the ethos of sustainability and encouragement of biodiversity found elsewhere on the site. The pollinators attracted to the flowers are also an important tool for education, allowing visitors of all ages and abilities to get close to nature. Conservation of bees and other pollinators is a key habitat management objective for Brocks Hill Country Park, and the flower beds should be an important part of this.



**Figure 17. Map of features in Compartment 1**

### **Raised Beds (1b)**

There are six raised beds at Brocks Hill; four are located behind the barns and two are situated on top of the mound in the natural play area. The beds were created by the master gardeners (one was built by the Leicestershire and Rutland Wildlife Trust working with young people) and provide a base for growing and learning about food. Students from South Leicestershire College volunteer regularly to maintain the beds, growing food such as onions, tomatoes, potatoes, leeks and broad beans to be harvested and then cooked during their lessons. Work on the raised beds is supervised by a dedicated

lead volunteer, who plans the sessions and vegetable planting schemes. Vegetables grown on the beds are also offered to visitors, as well as volunteers.

### **Earth bank on the visitor centre (1c)**

The earth bank on the north side of the visitor centre was originally planted with Chinese bramble (*Rubus tricolor*), however in 2014 the bank was re-planted with a range of shrubs to provide nectar and fruit. Only the roses have established well, with the soil and situation being unsuitable for the majority of the plants. At present the bank contains large areas of exposed membrane and will require extra planting to improve the appearance and wildlife value of this feature.

### **Memorial Mound (1d)**

The Memorial Mound was shaped and enhanced with the installation of the Friends of Brocks Hill Memorial Tree sculpture in 2013. The area inside the mound is easily accessible with gravel and slab surfacing and the provision of four memorial benches create a peaceful space for rest and contemplation. The inside slopes of the mound have previously been planted with wildflower plugs, however, grasses dominate the steep sides, with some flowering herbs present. These include Common knapweed, Smooth hawk's-beard, Green alkanet, Field scabious and Red campion; all valuable for a number of pollinators. Two varieties of holly bushes were planted around the steep perimeter of the mound in 2017, with the intention of creating a low holly hedge to enhance the privacy and peacefulness of the mound. Daffodil bulbs were planted in the winter of 2017, placed in a double row on the outside of the mound below the holly hedge: it is hoped these flowers will add additional interest in spring.

Bare earth is present on the steep areas of the mound, and is especially valuable on the south facing slopes for invertebrates. A number of solitary bee species have been recorded nesting and flying here, including Ashy mining bee, Yellow-legged mining-bee and Buffish mining bee; the host species of the cuckoo Gooden's nomad bee, also found on the mound.

### **Play Areas (1e)**

The two play areas are kept primarily for access and recreation, with management focussed on amenity grass cutting and keeping benches, steps and play equipment clear of encroaching vegetation. The small play area is 260m<sup>2</sup> in size and the natural play area is 0.75ha in size. Some of the plant species present in the play area's grasslands can provide a nectar source for pollinators when they get chance to flower between grass cuts. These species include: Red clover, White clover, Daisy and Dandelion. Willow sculptures were created when the natural play area was installed in 2008. The four sculptures are shaped into tunnels and domes and enhance the natural element of the play area.

### **Jubilee Amphitheatre (1f)**

The amphitheatre has tiers sculpted into the raised mound and is managed primarily for access and recreation. However, White clover is dominant in the sward on the tiered mound, providing an important nectar source for bees in between grass cuts. Species such as Common dock, Meadow buttercup and Ribwort plantain are common behind the mound; these are retained as important foodplants for a range of invertebrates.

### **Picnic Area (1g)**

The picnic area is a small, fenced off dog-free zone next to the natural play area with an accessible picnic bench. Adjacent to the picnic area is the dog walker's shelter, a covered area with picnic benches. Both areas provide secluded and sheltered space for visitors to sit and enjoy picnics. The picnic area contains an old apple tree and is surrounded by a small number of trees that are relicts of the old farm orchard. This includes a mature cherry tree that is part of a small section of the old adjacent hedge. Species such as Cow parsley and Lady's smock are found in the picnic area, and the fallen apples provide a source of food for small mammals.

### **Management Objectives**

- To continue to enable access and recreation throughout this compartment.
- To maintain and enhance the garden beds for their visual and wildlife value.
- To maintain and enhance the raised beds for the benefit of volunteers and the community.
- To manage the memorial mound for quiet reflection, aesthetic planting and insect interest.

### **Management prescriptions**

**Flower beds (1a):** The flower beds require regular maintenance during spring and summer involving weeding, deadheading and general tidying. Gardening is carried out by the Park Warden and the volunteers. Annual cornfield wildflowers have been sown in spring as a low intensity method of filling in any bare spaces on the beds and to reduce the amount of weeds. Additional summer bedding plants are provided by the Friends of Brocks Hill, to add a splash of colour to the beds.

During the autumn and winter, planting, pruning and dividing are undertaken where necessary, with plants such as buddleia and ornamental elder being pruned at the end of winter. Some areas of shrub planting can be cut on a short coppice regime to provide a varied habitat structure, useful harvest materials for garden use and to maintain the aesthetics of the area.

**Raised Beds (1b):** The raised beds are primarily managed by the students from South Leicestershire College, with additional help from the regular volunteers during school holidays. The beds require weeding, planting and regular maintenance and harvesting of vegetables throughout the growing season. During the autumn and winter, there are fewer maintenance tasks, but these can include planting of over-wintering vegetables, weeding and adding compost to the beds.

**Earth bank (1c):** The earth bank on the visitor centre will need replanting with low maintenance shrubs that thrive on the heavy clay soil. The established roses can be retained and Chinese bramble will be encouraged and replanted in the future to ensure this area is covered in greenery to avoid bare patches.

**Memorial Mound (1d):** The outside of the mound is regularly mown along with the amenity grass cut of the surrounding area. The inside of the mound is left to grow long throughout the summer and cut with a brushcutter in the late summer/early autumn. Cuttings are removed to avoid nutrient enrichment and to enhance the wildflower species in the sward. Some south-facing areas of the mound are deliberately churned up when cutting to continue to provide bare earth for nesting bees. To preserve suitable habitat for the solitary bees recorded here, it is important to prevent the small

areas of bare earth on the south-facing banks from becoming smothered in vegetation by ensuring the sward is cut low at the end of the growing season.

As the holly bushes grow, they will need weeding and regular trimming to maintain a low, compact structure: this is important to preserve the character of the memorial mound. The interior of the mound needs to receive sunlight to ensure the grasses and wildflowers thrive, to provide sufficient light and warmth for resident insects and to allow visitors to enjoy the sun on the benches.



**Figure 18. The Memorial Mound with the memorial tree in the centre**

**Play areas (1e):** The two play areas are managed with fortnightly and monthly grass cuts and regular strimming around play equipment and benches. The mound in the play area is cut at the end of summer, with the mound's path-side vegetation kept trimmed during spring and summer. The willow sculptures were pruned in the autumn of 2017, with new re-growth to be woven to enhance the sculptures in 2018. Play area signage is kept clean and clear and play equipment is checked weekly and inspected annually. Paths and benches are regularly checked, with gravel surfacing being topped up where required. All eroded surfaces under the benches were topped up with gravel in 2017.

**Jubilee Amphitheatre (1f):** The amphitheatre is managed with a monthly grass cut and strimming around benches and gateways. Overhanging trees are inspected for damaged branches and managed by pruning. The buttercups and docks to the rear of the mound are left as a non-intervention area, however if scrub begins to invade, it may be beneficial to control it to retain these 'weed' species for the invertebrates that rely on them.

**Picnic Area (1g):** The picnic area requires grass cutting around the picnic bench a few times throughout spring and summer. To preserve long vegetation to benefit invertebrates, only the area immediately around the bench and gateway are cut. The mature fruit trees are inspected for damaged branches and bird and bat boxes have been installed on the trees in this area to enhance their wildlife value. This management reflects the area's ecological importance and provides a historical link to the site's previous use. Gates, fences and benches undergo maintenance where necessary.



## 10.2 Compartment 2 – Ponds



**Figure 19. Breeding frogs in the ponds**

There are a small number of ponds at Brocks Hill, but all are important for a range of different species, enhancing the biodiversity of the country park. The addition of pond-dipping platforms on one of the ponds provides opportunities for hands-on learning about invertebrates, fish, amphibians and their life cycles.

### **Educational Ponds (Compartment 2a)**

The educational ponds were created in 2001: after developing a lot over the years, they are the most diverse ponds at Brocks Hill. The small pond is 80m<sup>2</sup> and runs into the larger pond, which is 270m<sup>2</sup>. The ponds were planted with a mixture of native emergent, submergent and floating aquatic plant species in May 2001, with many of these still thriving today, including Fringed Water-lily, Meadowsweet, Marsh marigold, Yellow flag iris, Water mint and Soft rush. Common reed dominates the northern edge of the large pond, forming a small reedbed habitat, whilst Bulrush is abundant on the small pond. Broad-leaved pondweed is abundant on both pond surfaces throughout the summer.

Willow, Silver birch and Holly border the ponds, with the area where willow branches meet the water acting as a quiet refuge for species such as Moorhen. Kingfishers also use the tree branches and reeds as fishing posts. Bramble borders areas of the pond and can provide additional nesting and feeding opportunities for some species.

To the north of the large pond, tree and shrub planting and small areas of laid hedges provide aesthetic value, screening and bird nesting habitat, with plants including Dogwood, Privet, ornamental Hornbeam and Buddleia present. Facing the car park is a wooden Brocks Hill sign: the area in front of the sign (approximately 20m<sup>2</sup>) was overgrown and neglected. From early spring 2017, this area was rejuvenated by removal of large shrubs and weeds obscuring the sign, turning over the

soil and planting an annual wildflower seed mix across the area. Visitor feedback and wildlife response were both very positive, so this will be continued into the future, with species such as Cornflower, Common poppy and Corn marigold to be sown. These arable 'weeds' can also provide an important link to the historical land use of the site.

The sloping grass area of the smaller pond was enhanced through planting of additional flower species in 2014, including Red campion and Oxeye daisy (which is dominant in the sward). Yellow rattle seed and a small amount of grassland flower mix was sown after cutting in autumn 2017, with the aim of enhancing this area further as a miniature meadow.

The educational ponds are accessible to visitors and school groups. Benches provide pleasant areas to sit and look out over the area, two pond dipping platforms are located each side of the large pond, enabling a close up look of creatures living in the water and hard surfaced paths run around both ponds, connected by a footbridge. The footbridge was upgraded to become a wider, more accessible bridge in spring 2015. Although the ponds are accessible to view and get close to with the platforms, they are mainly surrounded by wooden knee rails, with the addition of three danger signs: this is for safety reasons and to discourage disturbance from visitors and dogs.

### **Lucas Ponds (Compartment 2b)**

Lucas ponds cover an area of approximately 1200m<sup>2</sup> and are situated to the east of Lucas Marsh, with houses to the north and the Washbrook running inbetween. The two ponds adjacent to Lucas Marsh were created in the 1970's under the direction of Mr Lucas in response to water shortages following the drought of 1976. Afterwards, a small fishing club stocked the lakes and fished them for a number of years. The ponds are quite deep with steep sides and the water quality is eutrophic with the presence of blanket weed and algal blooms throughout summer.

Broad-leaved pondweed is abundant across the ponds, Yellow flag iris and Bulrush are occasional emergent species and the bankside vegetation contains a range of plants, including some non-native garden species. Plants include Pendulous sedge, Great willowherb, Wild strawberry and Hybrid bluebell. The ponds are surrounded by self-set and planted trees: willow (including Weeping willow), Alder, Ash and shrubs such as Elder and Snowberry. The trees are closely planted to the south of the ponds, forming a hedge that was gapped up in 2013.

The area is accessible via steps and an informal path around the edge of one pond, however the vegetation around access points and paths are deliberately left to grow long throughout spring and summer to discourage excess visitation to limit disturbance to resident wildlife. Access can also come from Lucas Marsh to the west, however this reserve receives less visitation and has a no dogs policy.

### **Spinney pond (Compartment 2c)**

Spinney pond is approximately 20m<sup>2</sup> in size and is situated adjacent to a small spinney to the south of the country park. The pond is ephemeral in nature and only holds water throughout the winter period. Along with Field pond (Compartment 2d), it has historical interest as one of only two remaining field ponds within the local area.

With the spinney to the east and new woodland planting to the west, the pond is shaded, receiving little sunlight. The pond is fed via run-off from the field to the south and it prone to silting up. Vegetation is limited with Yellow flag iris present and historical records of Celery-leaved buttercup. Mature Ash and Hawthorn trees border the south and east of the pond and the margins are dominated by young Willows; these will require cutting back to allow more light into the area.

Access to this pond is restricted to reduce disturbance to wildlife through stock fencing around two sides of the pond and a dead hedge along one edge.

### **Field Pond (Compartment 2d)**

Field pond is an old field pond, approximately 30m<sup>2</sup> in size, located between woodland and meadow compartments. It is bordered by a low laid hedge to the south, mature scrub and trees to the north and is ephemeral in nature, drying up in summer. The pond's vegetation is very sparse, with limited submerged, floating or marginal plants. Blanket weed can cover the pond at the start of summer and Cow parsley grows along the banksides.

This pond is one of the most important at Brocks Hill, designated as a Local Wildlife Site (LWS) due to its population of Smooth newts that have been present in small numbers in the pond for over a decade.

### **Ditches and Scrapes**

#### **Scrape**

In the southern part of Compartment 5i, a scrape was created in an area of waterlogged ground in 2014. The scrape is approximately 60m<sup>2</sup> in size and is surrounded by a bank created from excavated material. A number of plants from the educational ponds were planted into the margins and the scrape now resembles a small, marshy habitat, holding some water throughout winter.

#### **Ditches**

A network of ditches run across the country park, providing drainage adjacent to woodland and meadow compartments and paths. The topography of the land means the water runs from south to north, with ditches nearest to the visitor centre holding the most flowing water during wet periods in winter. In 2013, work was undertaken to recut the ditches to improve drainage. Water flows easily down the ditches, but waterlogging and erosion remains a problem on some areas of paths. Some of the ditches across the park contain plants such as Salad burnet, White clover and Red clover.

### **Wildlife**

Wildlife within the ponds is diverse, with a range of invertebrates, amphibians and fish present. The ponds also provide a valuable source of water and foraging opportunities for birds and mammals across the country park. Pond life includes Three-spined sticklebacks, Pygmy backswimmers and Great pond snails, with evidence of Common frogs and Common toads breeding annually in the educational ponds.

Smooth newts utilise the Field pond for breeding, and males and females can be seen basking in the daytime in spring. Smooth newts have also been recorded in Spinney pond in 2005 surveys. Further

surveys should be undertaken to confirm if they are still present and monitoring should continue across all ponds for amphibians and other species.

Birds attracted to and around the ponds include Grey heron, Mallard and Reed bunting. Moorhen breed successfully on the Educational ponds and Kingfishers utilise these ponds for fishing and have historically nested in the banks of Lucas ponds. The marginal vegetation and area of grassland adjacent to the Educational ponds provide habitats for many invertebrates, including Banded demoiselle, Emperor dragonfly, Drinker moth, Small skipper butterfly and Ruby-tailed wasp.

Ditches are beneficial to wildlife including small mammals (which have been observed nesting among ditch-side vegetation) and amphibians. They can also support a number of invertebrate species.

### **Management Objectives**

- Maintain the ponds in a favourable state by ensuring a range of pond habitats are conserved across the ponds as a whole to benefit the widest range of species.
- Enhance pond vegetation by actively managing aquatic plants.
- Develop hibernacula and log piles adjacent to ponds for amphibians.
- Ensure access is managed appropriately for each pond.

### **Management Prescriptions**

The ponds at Brocks Hill all vary in character and quality, but each have their merits. It is important to retain individual characteristics and not try to drastically change the nature of a pond by aiming for each one to have all of the habitat elements. There should be examples of a range of important pond habitat features across the country park, including open water in full sun, shallow water, shaded and silty water, strips of emergent vegetation and overhanging branches.

Algal blooms and blanket weed can be problematic in some of the ponds depending on seasonal conditions: barley straw extract should be applied to some of the smaller ponds if required.

**Educational Ponds (Compartment 2a):** Management on the Educational ponds is centred on reducing encroachment of reeds upon the pond and maintaining sufficient variation in habitats, including marginal vegetation and open water. The process of succession can lead to the degradation and loss of ponds and their associated wildlife. In previous years, a lack of active management has led to extensive reed growth across these ponds, smothering open water and other plants.

In 2013, pond restoration was undertaken using a flail mower and mechanical excavator to cut back reeds and scrub and remove silt from underneath the footbridge. Due to minimal follow-up management, encroachment of reeds continued and the ponds were becoming smothered and overgrown by 2016. At the start of 2017, contractors cleared large amounts of reed to return the two ponds to a suitable condition. To avoid large-scale clearance works in the future, sustainable and manageable clearance by hand will be carried out every year.

In 2017, a small pond maintenance boat was purchased using funding for equipment from the Natural Discovery Volunteer Development Programme, funded by Heritage Lottery. The boat allows access onto the pond to carry out maintenance work not previously possible without the use of contractors.

Clearance and cutting back of encroaching reeds will be carried out every year with the help of volunteers, in order to keep the ponds in the most suitable condition for their associated wildlife. All pond material should be left for at least 24 hours to allow wildlife the chance to re-enter the ponds. Maintenance should be carried out at the end of autumn to reduce disturbance to aquatic species. Sticks, rubbish and other debris should also be cleared at this time: sticks are frequently thrown into the ponds throughout the year and should be removed where possible to discourage this behaviour.

The reeds and bulrushes should be maintained to ensure that strips are always retained along the northern edges of both ponds. The reeds on the larger pond grow adjacent to the shrub planting, forming an area of dense vegetation, beneficial to nesting Moorhens and other birds: these should be left uncut, with a small area of reeds (3m<sup>2</sup>) cut adjacent to the small pond dipping platform. This area was cut this way in 2017, with the shallow water becoming important for breeding frogs; therefore this should be repeated each year before the breeding season.

Trees and shrubs overhanging the ponds will be managed by cutting back a proportion of the growth, but areas of long branches will be retained as shelter and perching spots for wildlife, including Kingfishers.



**Figure 20. Kingfishers fishing on the ponds**

The shrub planting adjacent to the ponds can be coppiced on a short rotation and trimmed where necessary. All shrubs should not be coppiced in one operation, to ensure there is always cover for wildlife. Hibernacula for amphibians will enhance this area, but should be hidden amongst the shrubs to discourage sticks and logs being thrown into the ponds. The wildflower area in front of the Brocks Hill sign should continue to be maintained by cutting and raking at the end of winter and sowing of annual seeds in spring. The choice of annual arable 'weed' species complements the existing species

found in the meadows and provides additional pollen and nectar sources for different suites of invertebrates.

The knee rails surrounding the larger pond were defunct and replaced in spring 2017. The knee rails should be maintained with wood treatment where required and with regular trimming of grass underneath throughout the growing season. As part of the gateway to Brocks Hill, the educational ponds are an example of semi-natural habitats and more formally managed planting.

**Lucas Ponds (Compartment 2b):** Due to its inaccessibility, maintenance of Lucas ponds is more irregular and less intensive than other ponds. Reed encroachment isn't a problem due to the depth of the water, however ash seedlings and scrub require cutting back to allow marginal plants to flourish.

Work in 2012/13 involved installing coir rolls into the ponds to control contaminants. In 2014, willow trees adjacent to the ponds were re-pollarded and some were removed. Safety signage was also installed by the ponds at this time. In 2017, the steps were renewed with gravel and scrub surrounding the ponds was cut back. Trees adjacent to Lucas Ponds will be assessed as part of the annual tree safety inspection by the Tree Officer, with works carried out where necessary. Pollarding of willows will be required again in another 5-10 years.

To enhance the ponds for maximum wildlife benefits, a number of major works would be required, such as profiling pond margins to create shallow areas suitable for marginal plants and works to decrease nutrient levels in the pond. These works would be subject to other work priorities, funding and resources.

**Spinney Pond (Compartment 2c):** To reduce the amount of shade over Spinney pond, the encroaching young willows will require cutting back. Regular maintenance through repeated cutting will effectively manage willow regrowth to ensure it does not dominate in the future. Cut materials can be used to renew the adjacent dead hedge. Opening up the banks of the ponds in this way should enhance the area for wildlife and enable the colonisation of marginal plants.

To retain more water, the pond's levels can be raised through increasing the height of the culvert at the outflow to the north of the pond. Water levels will be monitored to assess if these measures are required, as ephemeral ponds are important for some amphibians. The amount of silt in the pond will be monitored to determine if any de-silting works are necessary; however different communities of species can benefit from these conditions and silt removal is likely to be complicated and labour intensive from this pond.

**Field Pond (Compartment 2d):** Management of Field pond will focus on maintenance to ensure it continues to be suitable for the resident Smooth newts, by managing adjacent vegetation and restricting access. Historical works carried out on the pond in 2002 include dredging and coppicing of surrounding trees and scrub. The pond will continue to be monitored to assess when future dredging works may be required.



Throughout the winter of 2017, the shrubs to the south of the pond were laid, with additional dead hedging techniques used to create a thick barrier. Rustic fencing was also erected on the northern side of the pond to prevent access. Hedge laying has reduced the amount of shading over the pond and prevents dogs from entering the water and disturbing wildlife. To ensure sufficient light levels can reach the pond and to maintain an effective barrier, this hedge should be kept deliberately low (shorter than 1m). This can be achieved by annual/biannual cutting and adding brash along the base where necessary.

Blanket weed will be controlled where possible if is present during spring and summer through application of barley straw extract. Planting of submerged plants may benefit the newts by providing areas for egg-laying opportunities. As adjacent woodland compartments are thinned, log and brash piles can create valuable hibernacula for amphibians.

### **Ditches**

Ditches are monitored throughout the year with any blockages cleared. Long vegetation growing in the ditches is cut annually using a brushcutter, ensuring drainage pipes are kept clear. Cutting is carried out in autumn to avoid disturbance to wildlife and to allow mammals and invertebrates to feed and breed.

### 10.3 Compartment 3 – Community Orchard



**Figure 21. Apple trees blossoming in the orchard in spring**

The Community Orchard was planted in the winter of 2000/2001 and is located just to the west of the visitor centre. The orchard was created to benefit wildlife, the local community and to preserve the heritage of traditional orchards. The planting surrounds the Orchard Meadow (Compartment 5e) and the trees cover an area of approximately 0.7ha, with accessible gravel and grass paths running throughout.

There are approximately 150 fruit trees within the orchard of the following species: Apple, Plum, Pear, Cherry, Mulberry, Walnut and Hazel. These mainly comprise of a range of non-commercial varieties from Leicestershire and the East Midlands, with the purpose of conserving traditional, local fruit cultivars, including ‘Annie Elizabeth’ and ‘Newton Wonder’. A map and list of the orchard tree varieties is included in Appendix 3.

Many of the original trees were sponsored by local families and a small number of sponsored fruit trees were planted in suitable spaces in 2017. Due to the lack of suitable spaces across the country park, future sponsored traditional fruit trees can be planted in appropriate areas of the orchard. This can replace failed trees and can enhance the age diversity of the orchard. Tree planting should not encroach on the orchard meadow, as this needs to remain open for wildlife and maintenance.

The orchard blossom produces a beautiful floral display in spring and the fruit provides a feast in autumn. At harvest time, the local community are welcomed to help themselves to the fruit within the orchard and apples are picked to sell at the Friends Of Brocks Hill Food Fayre in October.

## **Wildlife**

The combination of orchard and meadow habitats creates a range of opportunities for resident wildlife, which should increase as the trees mature. Any unpicked fruit benefits bird, mammal and invertebrate species: a proportion should always be left as windfall for wildlife, including thrushes, small mammals and insects.

The fruit tree blossom provides nectar and pollen for a variety of pollinators, with a number of bee species recorded in spring 2017; bumblebees such as Buff tailed bumblebee, Tree bumblebee and Common carder bee, and solitary bees such as Red mason bee, Tawny mining bee and Early mining bee have all been observed.

Bullfinch are common in the area and may feed on fruit tree buds. Blackbird territories have been recorded in the orchard, with Blackcap and Goldfinch utilising the orchard's adjacent hedgerow. Blue tit, Dunnock and Robin also utilise the orchard as well as neighbouring gardens. As the trees mature, they will provide further habitat opportunities for wildlife such as mosses, lichens, birds and invertebrates.

## **Management Objectives**

- Conserve fruit trees in the orchard and ensure a range of tree structures and ages are maintained.
- Restore trees that require extensive pruning and staking.
- Implement and maintain a regular tree pruning schedule.
- Install relevant interpretive information at harvest time for visitors.
- Leave a proportion of fruit unpicked and as windfall for wildlife.

## **Management Prescriptions**

Management in the orchard will balance traditional management for a fruit crop with measures to enhance biodiversity. The orchard trees have received some formative pruning in the past, but little attention in recent years. Extensive maintenance pruning commenced in January 2017 and continued in January 2018, led by Leicestershire Heritage Apples. These pruning courses were provided for members of the public and the conservation volunteers, providing them with the skills necessary to continue future maintenance. A pruning maintenance schedule will be created to ensure management is carried out each year. Apple and pear trees will be pruned over the winter months and soft fruit trees will be pruned during the summer.

Some of the larger apple trees will be left largely unpruned to provide a range of tree forms to benefit biodiversity. Retaining taller trees will also ensure that some fruit beyond reach can be preserved for wildlife or picked only by volunteers with ladders/fruit picking tools. Apple picking for food fayres will be carried out by volunteers in autumn, however a proportion of the crop should always be left for wildlife.

The map of the orchard will be updated to correspond with tree tags that will be installed on the trees. In the future, interpretation informing visitors of the cultural heritage and wildlife value of the orchard would be beneficial, but will be subject to available funds.

#### 10.4 Compartment 4 – Woodland and Scrub



**Figure 22. Silver birches in the woods at Brocks Hill**

The woodland compartments at Brocks Hill were planted with 18,000 trees between 1998 and 2001. In line with Leicestershire BAP targets to increase the amount of woodland within the county, tree planting was carried out with the aid of a Woodland Grant, sponsorship and volunteer opportunities. The majority of species planted are of native origin, with occasional non-native specimen trees planted for aesthetic and educational purposes. See Appendix 2 for the full species list of trees and shrubs at Brocks Hill.

The trees were mainly planted in single species groups and blocks (as part of the English Woodland Grant Scheme requirements at the time), with occasional specimen trees distributed around the woods. Interpretation boards by the single species blocks were installed shortly after the trees were planted to aid identification. The trees were planted at a density of 1,800 per hectare, spaced at 1.5 to 3 metres apart.

The combination of single species blocks, close spacing and lack of extensive thinning works since establishment have resulted in compartments missing some of the characteristics of true semi-natural woodland. As the woodlands develop and mature, the aim is to create more naturalised compartments, with a mixture of species growing adjacent to each other. The current even-aged stand will possess a greater range of age structures as the years pass, with further development of the ground, shrub and canopy layers.

The woods at Brocks Hill provide a range of opportunities for visitor recreation, wild play and education. Interpretation regarding the woodlands at Brocks Hill is displayed in the visitor centre, with the aim of educating visitors about the value of the woodland habitats: including the benefits of log piles, the species that inhabit the woods and the seasonal work being carried out.

The woods are an important educational resource for a variety of sessions, including minibeast hunting and learning about nesting birds.

**Canopy layer:**

The trees have reached an age where they are forming a closed canopy, with differences between species and situation. Some species and individual specimens have developed nicely, with Ash, Lime, Alder, Silver birch, Wild cherry and Crabapple thriving on the site. A number of trees have suffered severe bark damage from squirrels: the species affected include Oak, Field maple, Hornbeam, Aspen, Silver birch and Willow species. The majority of the oaks have sustained bark damage, which will affect their growth forms as they mature. Trees badly affected by ring barking will require pruning, felling or pollarding for tree health and public safety.

**Shrub layer and scrub patches:**

The shrub layer within the woods is yet to develop, although this should improve as the woods mature. Hazel has been planted in some compartments to contribute to the shrub layer and in the spring of 2017, a variety of native whips were planted throughout recently thinned compartments to enhance the structural and species diversity of the woods. See below for information regarding coppicing.

There are a number of species exhibiting natural regeneration in the woods, including Oak, Ash, Field maple, Holly, Hawthorn and Wayfaring tree. Holly, Dogwood, Guelder rose and Dog rose are all present in the shrub layer, with some species planted and flourishing along open rides. Areas of Bramble are quite common in the woods and along the woodland edges. Bramble will be controlled from encroaching over paths, ditches and some areas of the woodland, but it is a valuable habitat, with a variety of age ranges to be conserved in different situations. Patches of dense growth along the woodland edge are beneficial for a number of species, including nesting birds. Other areas of scrub include stands of Blackthorn, which can be controlled from spreading too vigorously, but can also provide nesting and sheltering opportunities for wildlife.





**Figure 23. An example of dense flowering scrub growing at the edge of the woods**

#### **Ground layer:**

At present, the ground flora of the woodland compartments is still developing, with some areas still resembling grassland (e.g. under Ash trees) and some areas very shaded with little vegetation cover (e.g. under Hornbeam). The majority of the woods contain Wood avens, Ground ivy and Common nettle, with Cow parsley, Herb Robert, Selfheal and Forget-me-not present in some areas. A few small areas in the woods have planted ground flora species present, including Daffodil, Red campion and native and non-native Bluebells. After the trees were first planted in 2001, a number of woodland wildflower bulbs were planted amongst the saplings, however a proportion must have initially failed, potentially due to competition from the grassland sward still present at the time.

Now that the trees have established well, there is potential for further planting of woodland wildflowers throughout the woodland compartments. Ensuring the seeds/bulbs are of native origin and the species mix is befitting of local woodland communities, introduction by planting is the only way to enhance the ground flora, as establishment through natural methods will be unlikely due to the wood's isolation in the landscape.

#### **Paths and rides:**

One of the objectives of Brocks Hill Country Park is to enable accessibility and to encourage visitors to walk around and enjoy the wildlife and tranquillity of the site. A network of linked paths and rides have been created and developed throughout the site. The main gravel surfaced paths run throughout the site and dissect the woodlands and other habitat compartments at Brocks Hill. Grass rides run through compartments 4f, 4g and 4h and a number of informal paths have been created through visitor use around the perimeter of the woods. Additional desire lines cut through some areas of the woods. As well as providing recreational access for the public, the paths also offer access for maintenance vehicles and for vehicles in case of emergency.



The presence of woodland rides adds to the diversity of the woodland compartments, with the ecotone between grassland and woodland forming a valuable habitat. The straight, wide grass ride that runs from the southeast corner of compartment 4h was planted at the same time as the woods and contains a number of shrub species, including Dogwood, Guelder rose, Wayfaring tree and Holly. These grassy rides provide interesting routes off the formal paths and give visitors a greater sense of exploration and seclusion.

The informal paths run around the perimeters of compartments 4e and 4j and also provide opportunities for visitors to explore all corners of the site. They and other desire line paths are narrow and prone to becoming muddy. A wooden boardwalk runs through compartment 4j linking the access point to the permissive path with the main surfaced paths. An informal path runs through compartment 4a and is frequently used by visitors and school groups on educational sessions.

### Compartments

Originally, the woods were separated into distinct compartments with varied planting. As the woodlands develop and merge into a more unified habitat, the aim is to enhance the compartments in the same way for the same results: through diversification of species and structures to create a more natural woodland.

The woodlands have been separated into fourteen compartments, although management prescriptions are universal for all areas. A number of compartments at Brocks Hill were originally planted in partnership with local organisations:

- Compartment 4a is known as Winter Wood and was planted in 1999 in partnership with LOROS (Leicestershire and Rutland Organisation for the Relief of Suffering) and the Laura Centre in Leicester. It is the most distinctive and different woodland compartment at Brocks Hill due to the species mix: Silver birch is dominant, with a number of non-native trees and shrubs planted around the fringes, including Himalayan birch, Snake bark maple, Lace bark pine, Tibetan cherry, Holly, Dogwood and a block of Scots pine in the southern corner. These species were chosen for their visual impact in autumn and winter.
- Compartment 4b was planted in 1999 in partnership with the Leicestershire Tree Wardens. The trees were donated as part of the historical 'Save a Sapling Scheme', with Sweet chestnut (a number of these have not survived due to fungal disease and unsuitable soil conditions), Oak, Wild cherry, Silver birch and Field maple part of the mix.
- Compartment 4d was sponsored by the Aylward family and contains predominantly native species with a selection of interesting varieties. Ash covers the majority of the compartment, with planting surrounding a mature ash in the centre. Alder, Field maple and Black poplar are also present, with the occasional variety of *Fraxinus excelsior* 'Jaspidea' and *Fraxinus angustifolia* 'Raywood' to be found.
- Compartments 4f and 4g were planted with support from the Rotary Club of Oadby, with trees being sponsored by local families.

### **Old spinneys**

There are two old spinneys at Brocks Hill, containing trees approximately 30-40 years old. The spinneys only occupy a small area and are located close together at the southern end of the site, in compartments 4e and 4j. The new tree planting has absorbed the spinneys into the wider woodland compartments of the site. The spinneys contain mainly Ash and Field maple, with some Hawthorn and Snowberry in the understorey, and Ivy and Cow parsley present on the ground.

### **New planting**

New tree planting has taken place in corners of the hay meadows between 2014 and 2017. The trees planted are mainly native species, including Oak, Field maple, White willow, Silver birch and Horse chestnut. Trees in compartment 4l were donated by Waitrose, compartment 4m is composed of 100 trees that were sponsored and planted by the Lion's Club to mark their 100 year anniversary and the trees in compartment 4n originated from the tree nursery.

### **Coppice**

The woods contain a few areas with groups of Hazel and Willow suitable for coppicing, but the main coppice coupe is located in compartment 4e. A number of Hazel stools have been planted together and are maintained through coppicing, with materials being used in the gardens and hedgerows at Brocks Hill. The shrub planting adjacent to the barn is managed through coppicing and contains Hazel, Dogwood, Guelder rose, Hawthorn and Dog rose.

### **Den building area**

The den building area is located to the north of compartment 4d and contains Goat willow, with White willow and Crack willow around the area. Located near to the play areas and the visitor centre, the den building area is popular with children and families, encouraging wild play, also being utilised by school groups. The area is separated from the adjacent wood with rustic fencing and is kept stocked with branches and small logs from thinning operations.

The willow trees were originally planted to provide a fuel source for the centre's old woodchip boiler, although this was not a viable option. Some of the willows adjacent to the den building area form an archway over a path leading to the den building area. Many of the willows have died or no longer form an arch, however this may be something to consider rejuvenating in the future.

### **Wildlife**

The woodlands currently provide food, shelter and nesting habitats for a variety of birds, invertebrates, mammals and amphibians, which will hopefully increase as this young habitat develops.

Woodland species such as Tawny owl, Little owl, Sparrowhawk, Great spotted woodpecker, Goldcrest, Coal tit, Common pipistrelle, Soprano pipistrelle and Noctule bat have been recorded in the woods at Brocks Hill. Other birds commonly seen foraging in the woods include Long tailed tit, Bullfinch, Goldfinch, Robin, Blue tit, Blackbird and Wren. Ravens have been sighted on occasion and Kestrels utilise the woodland edge for hunting along some rides. Magpies and Woodpigeons are one of the most common birds in the woods.

A variety of species will benefit from the increase in the amount of dead wood as the thinning programme continues: a range of invertebrates, fungi, lichens and mosses can exploit branch and log piles, amphibians can utilise wood piles as hibernaculums and birds can find nesting opportunities in some of the larger branch piles.

Scrub is a valuable habitat for many breeding birds and provides refuge and shelter for birds and mammals, due to its inaccessible nature. This could be especially important on a site with high numbers of dog walkers. Dense, thorny scrub is used by species such as Blackbirds and Dunnocks for nesting and flowering scrub along woodland edges is valuable for foraging pollinators and species feeding on berries. Rides and glades are important wildlife corridors, creating sheltered and warm microclimates that can benefit a number of species, including moths and other insects, birds and bats.

As the woodlands mature, a wider range of woodland wildlife will inhabit the compartments, although their potential to attract certain woodland species will be limited due to the small size and fragmentation of the woods and their proximity and connection to other similar habitats. Disturbance from high visitor numbers will also be a factor affecting some of the flora and fauna that inhabits the woods.

#### **4.4 Management Objectives**

- Ensure healthy growth of trees, through thinning and maintenance.
- Enhance the species and structural diversity of the woodlands.
- Diversify and enhance the flora of the developing woods to attract a range of wildlife.
- Create and maintain deadwood habitats.
- Maintain open rides and glades for the benefit of people and wildlife.
- Maintain features such as bird/bat boxes.

#### **4.5 Management Prescriptions**

The woodlands at Brocks Hill will require active management as they continue to develop, to ensure the trees are not crowded and light reaches through the canopy to allow the shrub and ground layers of the woods to establish. Management should aim to diversify the plant species and age structure of the compartments, whilst enhancing habitat features for wildlife, such as creating log piles, maintaining open rides and glades and installing bat and bird boxes in appropriate locations. All tree felling and scrub cutting activities are restricted to the winter period (November to February) to avoid disturbing nesting birds and other wildlife.

Annual tree safety surveys will be carried out by the Tree Officer for Oadby and Wigston Borough Council, with reports and recommendations passed to the Park Warden.

**Tree thinning:** All of the woodland compartments require extensive thinning to promote the healthy growth of the remaining trees. A felling licence was acquired in November 2016 to fell an estimated volume of 693m<sup>3</sup> of timber (approximately one third of the trees) in the woodland compartments until the licence expires in November 2021. Very small areas have been thinned in previous years, but large-scale tree thinning is at least 5 years overdue. A selective thinning regime commenced in

February 2017, continuing in November 2017. After the initial round of thinning, thinning works will continue to aid the development of a healthy wood, with stable trees possessing deep crowns. The thinning works will continue on a 5-10 year cycle, taking into account the size and vigour of different species and individual trees. For the best tree growth and a diverse woodland structure, crown thinning will be the most suitable method of woodland management. Light thinnings on a short cycle can be beneficial and more manageable.

The primary aim of the thinnings will focus on the health of trees and the woodland as a habitat, with any potential harvestable timber acting as a by-product of the range of wildlife benefits provided. As the woodlands near maturity, selectively thinned trees could be harvested for timber, depending on timber prices and the logistics of removal. Squirrel damage will continue to be monitored, with badly affected trees felled or pollarded to avoid dead and damaged limbs/branches falling.

**Timber and dead wood:** Timber resulting from initial thinnings will be utilised throughout the park in a number of ways. Long, straight branches are used to make stakes for use around the park, e.g. for hedgelaying. Thinner sections of timber and long branches are used to restock the den building area. The remainder of the branches are to be chipped, burnt or built into brash piles, dependent on the quantity and location on site.

Large logs are stacked to create habitat piles, as dead wood is an important woodland element that currently needs to be developed within the park. Some of the piles should be staked down with wire to prevent visitors moving or removing logs.



**Figure 24. Newly created log piles resulting from tree thinning**

**Regeneration:** To improve structural and species diversity in the woodland compartments, whips of a range of native species can be introduced amongst the block-planted compartments after thinning operations. Natural regeneration of tree and shrub species is also present and will be encouraged to further aid the development of the woods.

**Scrub cutting:** Scrub including Bramble, Blackthorn, Dogwood and Guelder rose is mainly managed with the use of hand tools. The primary aim of scrub management on site is to ensure that a range of scrub structures and ages are maintained for their associated wildlife. Management must be sensitive to ensure important scrub isn't eradicated, but to prevent encroachment over paths, open habitats and other features.

The areas of scrub are managed by cutting and burning/woodchipping with the help of the volunteers. Shrubs adjacent to paths and rides will be cut on a rotational coppice system, with small groups of individual plants being cut every few years to ensure a range of ages and structures. Additional scrub control will include controlling Ash and Sycamore seedlings, as they can begin to dominate the shrub layer at the expense of other species.

**Coppicing:** The hazel coppice in compartment 4e is too small to establish a proper coppice rotation, so all stools will be cut at the same time. The coppice was last cut in January 2017 with the help of volunteers using hand tools, after being left to grow for a number of years. The stools were then tidied with a chainsaw to produce clean, low cuts to encourage good regrowth. As part of the tree thinning works, a row of trees to the south of the coppice were felled to allow more light to reach the coupe. This area should be cut again in approximately 6-10 years. The area of shrubs by the barn will be cut every 5-6 years, with the last cut being carried out in 2014. The materials harvested through coppicing are used for the garden beds and as stakes and binders for hedgelaying.

**Paths and rides:** The condition of paths and rides are monitored throughout the year, with maintenance or improvements carried out where required. The main gravel surfaced paths were widened and topped up in 2013, however the gravel is easily eroded during heavy rain, requiring regular maintenance. The grass margins 1-2m on each side of the main paths are cut on the monthly grass cutting schedule.

The grass ride that runs from the southeast corner of compartment 4h is mown as part of the monthly grass cut along with the other paths. Long grass is left along the edges adjacent to the shrubs along the woodland edge, allowing a gradation in vegetation height, beneficial for a range of species. The other grass rides are narrow and not managed with grass cutting, although encroaching scrub is cut back to keep the paths open. The informal woodland paths are prone to becoming muddy and some are covered with woodchip once a year where possible. Priority areas for spreading woodchip include the path through compartment 4a, the area up to and around the old Ash tree in compartment 4d and the path through the woods to the amphitheatre.

Light trimming of vegetation adjacent to informal paths is carried out throughout the growing season, with more drastic scrub cutting carried out only during the autumn/winter to prevent disturbance to wildlife.

Trees adjacent to paths and rides will be managed for safety reasons and to enable access. Maturing trees can risk shading out open rides and can be managed along with ride-side shrubs, by creating a scalloped woodland edge through thinning. Suitable mature specimens can also be ideal for the installation of bat boxes, as bats favour rides due to the biomass of invertebrates available in the warm, sheltered conditions.

**New planting:** Newly planted areas will be maintained by cutting grass around the base of the trees for the first two years during establishment. Thinning and coppicing will occur when the trees reach 5 years of age, after which management will be the same as the rest of the woodlands across the site. No more new planting should take place on the open areas of Brocks Hill to preserve the important grassland habitats and their associated species.

Bulb and wildflower planting will be an important element to enhance the woodland habitats at Brocks Hill. Planting can commence after the first round of extensive thinning has been carried out. Locally sourced native wildflowers can be planted in clusters in appropriate locations, with the aim of enabling a naturalistic appearance and to allow the plants to spread naturally.



## 10.5 Compartment 5 – Grasslands



**Figure 25. Wildflower meadow at Brocks Hill in summer**

There are a range of different types of grassland throughout Brocks Hill, ranging from regularly cut amenity-style grasslands to hay meadows and rough grasslands. Conserving a range of types of grassland with a variety of cutting regimes and different species compositions in the sward all contribute to the biodiversity of the country park, with situations to suit many types of wildlife. The majority of the grasslands are easily accessible, with benches in and around the fields and meadows. They can provide opportunities for visitors and educational groups to learn about wildflowers, grassland wildlife and pollinating insects.

### **Amenity grassland (Compartment 5a\*)**

The grass areas immediately around the visitor centre are cut each fortnight. These are the shortest grass areas of the country park, receiving regular recreational use. The sward is species poor, with Perennial ryegrass dominant and herbs such as Common daisy present.

### **Species poor semi-improved neutral grasslands (Compartments 5b and 5c)**

#### **Play area and amphitheatre (Compartment 5b\*)**

The grass in the natural play area is cut on a monthly schedule and has a longer sward containing some flowering herbs, including Red clover, White clover, Daisy and Dandelion. The amphitheatre's main flowering herb is White clover. These species are well adapted to being mown fairly regularly and are able to flower in between cuts. These flowers, especially the legumes, are an additional food source for bees throughout spring and summer.

\*Compartments 5a and 5b are also included in Compartment 1 due to their recreational use and proximity to the visitor centre.

### **Ridge and Furrow (Compartment 5c)**

The ridge and furrow field lies to the north of the site and covers an area of 2.8ha. The Oak Avenue runs through the middle of the ridge and furrow, following the track that once led from Washbrook Lane to Grange Farm. The oaks were planted with sponsorship when the country park first opened in 1999 and the trees are developing well, enhancing the open ridge and furrow fields. A once widespread feature of the Leicestershire landscape, the medieval ridge and furrow field is of archaeological and historical importance and must be conserved. Although no legal protection exists for ridge and furrow, management prescriptions should manage this area appropriately.

The majority of the grass is mown throughout spring and summer to allow recreational access for visitors and events, as well as to ensure the topographical features of the ridge and furrow remain visible. The areas to the south and east of the Oak Avenue were left to form rough grassland when grazing ceased after 2012. These rough grass areas provide valuable hunting habitats for Kestrels and also contain stands of nettles that are important for Small tortoiseshell and other butterflies.

### **Improved grassland**

#### **Brocks Meadow (Compartment 5d)**

Brocks Meadow is 2.1ha in size and has not been seeded with a wildflower mix. Brocks Meadow and Grange Meadow were arable farmland covered by a Countryside Stewardship Agreement until 2012; in 2013 these fields were left to develop into grasslands. The sward of Brocks Meadow contains abundant Yorkshire fog and Dandelion, with frequent Creeping thistle, Common ragwort and Broad-leaved dock: a community typical of recently disturbed soil. This meadow would be ideal for improvement with a wildflower mix in the future, however the species currently growing are valuable nectar sources and foodplants for many invertebrates, especially Creeping thistle. In the northwest corner of Brocks Meadow is an extensive badger sett that continues under the hedge into Lucas Marsh. The sett contains main entrances that are actively used, with latrines and rubbing areas on hedgerow trees.

#### **Species rich semi-improved neutral grasslands (Compartments 5e, 5f, 5g, 5h and 5i)**

##### **Orchard Meadow (Compartment 5e)**

The Orchard Meadow covers an area of 0.32ha and was created in 1998 through removal of topsoil and then re-seeding with a native wildflower mix. The hard surfaced path that runs through the orchard divides the meadow areas. Cowslips are present in spring, but the majority of species flower throughout June and July. Bird's-foot trefoil is dominant throughout the sward, with frequent Creeping bent, Yellow rattle, Common knapweed, Sweet vernal grass and occasional Meadow buttercup. Underneath and around the orchard trees, the sward is less species-rich and is cut by hand after the meadow is cut.

##### **Tree Nursery Meadow (Compartment 5f)**

The Tree Nursery Meadow is a very small area, covering only 0.12ha. The sward is dominated by Ribwort plantain with frequent White Clover, Red clover, Creeping bent and occasional Meadow buttercup and Common vetch. This area receives regular recreational use by visitors, and trampling may have an effect on the composition of the sward.

### **Wildflower Meadow (Compartment 5g)**

The Wildflower Meadow covers an area of 0.45ha and was created in 1998 along with the Orchard Meadow. A hard surfaced path runs through the middle of the meadow, with the defunct wind turbine located to the south of the path. Like the Orchard Meadow, Cowslips are present in spring, but most species flower throughout June and July. Bird's-foot trefoil and Common knapweed are dominant in the sward, Lady's bedstraw, Meadow cranesbill, Rough hawkbit and Meadow buttercup are frequent, with occasional Meadow fescue and Yorkshire fog. The rarest plant present is Common spotted orchid, with a small number of spikes flowering just south of the wind turbine.

Despite ditch clearance work undertaken in 2013, the Wildflower Meadow and areas of the path running through are prone to becoming very wet and waterlogged throughout the winter. The meadow has some small scrapes, with shallow channels draining into them: the scrapes hold water only during wet periods in winter. Walkers and dogs frequently trample areas of the wildflower meadow throughout autumn and winter: this can have a similar effect of grazing animals and may help to suppress vigorous grass growth, however this is to be discouraged during spring and summer.

### **Old Hay Meadow (Compartment 5h)**

The Old Hay Meadow is 1.2ha in size and has been present since before the country park opened, used as a source of forage and grazing for the cattle that were kept here until 2012. It is an important link to the historic land use of the site and of the wider countryside in the borough.

The old hay meadow is a semi-improved neutral grassland, classified under the National Vegetation Community category as MG5: Crested dog's-tail *Cynosurus cristatus* – Common knapweed *Centaurea nigra* community. This meadow's floristic diversity may have decreased over the decades, with potential grassland improvement measures such as seeding and fertiliser use affecting the sward. From 1997, the meadow was included in a Countryside Stewardship Agreement that implemented the sowing of four grass species (including Crested dog's tail and Red fescue) at 20kg per hectare. A survey in 2007 found Crested dog's tail, Ribwort plantain and White clover to be abundant, whilst a 2017 survey found these species to be frequent, with abundant Cocksfoot and frequent Common knapweed.

The vigorous growth of grasses such as cocksfoot may be due to the alteration of the meadow's management. Since the absence of cattle, aftermath grazing has ceased and the meadow has been used for events in recent years, with paths mown throughout, possibly causing nutrient enrichment. The hard surfaced farm track runs along the east of the meadow, with access points to the main paths that lead around the country park and other habitat compartments. A desire line path runs across the meadow, from the track towards Brocks Meadow. This is mowed occasionally throughout the growing season. The old hay meadow is utilised as an educational resource for children's activities involving pollinators and minibeasts.

### **Grange Meadow (Compartment 5i)**

Grange Meadow is 3.15ha in size and was ploughed and seeded in spring 2014 with £1,500 of funding attained from the Leicestershire County Council Stepping Stone Countryside Management Project. The seed mix included Bird's-foot trefoil, Black knapweed, Musk mallow, Red clover, Selfheal and Oxeye daisy (which is the most abundant species in the sward). Yellow rattle and a species-rich grass mix were

also sown. This meadow is still developing and will continue to be monitored with botanic surveys to assess the presence and abundance of wildflower species. In the future, this meadow could benefit from more diverse species having a greater abundance in the sward.

### **Ecological value**

These grasslands form an important component of the meadow habitat at Brocks Hill, comprising the largest compartment area on site. Species-rich meadows have declined nationally by 97% since the 1930's and neutral grasslands have been listed as a priority habitat under the Local Biodiversity Action Plan. Throughout Leicestershire and Rutland, there are only 1,165 ha of species rich neutral grassland remaining. Meadows are an important habitat for a range of birds, mammals and invertebrates.

### **Wildlife**

A range of wildlife has been recorded on the grasslands at Brocks Hill, with potential for further surveys to discover additional species residing in these habitats. The diversity of wildflowers originally sown and residing in the seed bank across the meadows at Brocks Hill provide a floral resource throughout spring and summer.

The Orchard Meadow and Wildflower Meadow are some of the most important areas for a number of insects at Brocks Hill, this includes: Red tailed bumblebees and other bees feed on Bird's-foot trefoil and Knapweed, Hairy footed flower bees forage on Cowslips, Roesel's bush-cricket live in the long grass and Common blue butterflies and Six spot burnet moths feed on Bird's-foot trefoil.



**Figure 26. Common blue butterfly on Yellow rattle**

Other insects species recorded foraging on flowers across the meadows include Small copper butterfly, Small tortoiseshell butterfly, Narrow-bordered Five-Spot Burnet Moth and European Wool-carder Bee as well as Cinnabar moth caterpillars feeding on ragwort plants.

Kestrels utilise the long grass areas for hunting, with Field vole recorded and other small mammals probably present. Flocks of Yellowhammers have been recorded feeding on seeds in these long grass areas over winter. Grass snake and Common frog have been sighted throughout the summer in the meadows. Brown hare have been recorded in Grange Meadow: the large size may be the most suitable area for this species on a site with regular dog walker presence.

The short grass areas are also valuable for a number of birds feeding on soil invertebrates, including Green woodpecker, Blackbird, Fieldfare, Redwing and Starling.

### **Management Objectives**

- Maintain and enhance the floristic diversity of the grasslands.
- Continue to cut and collect meadow hay in late summer.
- Continue bee, butterfly and botanical surveys and survey for other species.
- Conserve and encourage pollinators and other invertebrates.
- Continue to maintain a mixture of grass lengths to benefit a range of species.
- Manage invasive 'weed' species appropriately.

### **Management Prescriptions**

#### **Amenity and Species poor semi-improved neutral grasslands**

**Play area and amphitheatre (Compartment 5a and 5b):** The natural play area and amphitheatre are cut on a monthly schedule throughout spring and summer by the Grounds Maintenance team.

**Ridge and Furrow (Compartment 5c):** The ridge and furrow field is cut approximately three times during the growing season, with a tractor-mounted flail by the former tenant farmer Geoff Pierce. The rough grassland areas to the south and east of the ridge and furrow are left uncut for their different wildlife benefits, but could be rotationally cut to prevent scrub invasion.

The Oak trees on the avenue are approximately 20 years old and are growing well, with some younger trees planted in later years along the southern part of the track. The older trees have largely avoided squirrel damage and should develop into well-formed mature trees. Management on the trees involves crown raising and pruning back branches: agricultural machinery accessing fields to the south of the site has damaged the trees in the past, requiring remedial pruning. Future pruning should continue to help create a well-formed canopy, whilst ensuring branches don't obstruct vehicular access along the track.

**Improved and Species rich semi-improved neutral grasslands:** All of the meadows (compartments 5d, 5e, 5f, 5g, 5h and 5i) are cut in late summer with the cuttings removed to prevent nutrient enrichment to maintain the delicate meadow ecosystem. The meadows have usually been cut in late summer or autumn in previous years: cutting at this time allows flowers to set seed and invertebrates to complete their lifecycles. August is a suitable month for cutting as the majority of flower species have set seed and the ground is dry enough for machinery to be on the meadows without causing damage.



The meadows are cut by Geoff Pierce, with all cuttings piled and allowed to compost down behind the bonfire site adjacent to Lucas Marsh. The grass in the large meadows is collected with the use of a forage harvester and the smaller meadows are cut with a smaller tractor and collected with a round baler. The hay from the meadows isn't saleable due to the potential presence of dog faeces and litter contaminating the crop; therefore disposal on-site is the most effective and cost-efficient method.

The southern part of the Wildflower Meadow isn't easily accessible with tractor-mounted cutting and baling equipment: this area is cut by hand using brushcutters by the Park Warden and the volunteers. Cuttings are raked and piled in a small area next to the adjacent woodland compartment. Cutting is staggered over a period of a few weeks to allow refuge areas for resident invertebrates. The long grass in the orchard around the trees has to be cut by hand using brushcutters. This is done in late summer with the help of volunteers to rake and pile grass around the base of the fruit trees: this acts as a mulch to suppress weeds and recycle nutrients.

All ragwort is to be removed prior to cutting so as not to contaminate cutting equipment. Removal is best done as close to the cutting date as possible, to allow invertebrates chance to feed on the plant and its nectar. Ragwort is hand pulled with the aid of the volunteers, with all plant material sealed in bags to be burned at a later date. Ragwort growing in other areas on site is left as it is a vital foodplant for some species and poses no risk to livestock. Areas of long grass (approximately 0.5ha) in Brocks and Grange Meadows are left uncut to allow refuge areas for a number of species reliant on these habitats, such as small mammals, birds of prey and invertebrate species such as Small skipper that rely on long grass over winter for hibernation.

The path margins adjacent to the Orchard and Wildflower Meadows contain a number of wildflower species, including Bird's-foot trefoil and Red clover: these areas are cut at the start of the growing season and left towards the end of summer to enable these plants to continue flowering.

There is potential for the improvement of the meadows: the Old Hay Meadow has decreased in floristic diversity, with increased vigorous grass growth. Grange Meadow is still developing, with a small number of species dominant in the sward. Brocks Meadow has the potential for its floristic diversity to be greatly increased through seeding and continued hay meadow management. Appropriate habitat improvement measures such as harrowing and seeding are dependent on available funds and potentially grants. As with any newly created habitat, it will take time for plants to establish and resemble a traditional meadow.

The three largest meadows have had new tree planting in small areas of them: these have been excluded from the total field sizes, as when mature, they will contribute to the total woodland cover of the site. Due to the rarity of hay meadows in the locality, no further tree planting should take place that will compromise the size and quality of the meadows.

Signage is utilised throughout the summer to discourage visitors from trampling the delicate flowers and there is potential for interpretation across these compartments to educate and inform the public about these fascinating habitats.

## 10.6 Compartment 6 - Hedgerows and Mature trees



**Figure 27. Hedgerows at Brocks Hill**

Hedges cover 2,441m of Brocks Hill Country Park, and the majority are species rich hedgerows, in place for many years when the site was farmed. Unfortunately, some sections of hedgerows (approximately 155m) are now surrounded by maturing woodland planting and no longer function as proper hedges due to lack of light. The species composition of the hedgerows includes Hawthorn, Blackthorn, Hazel, English elm, Crabapple, Field Maple and Holly. Other woody species present in the hedges include Dog rose, Bramble, Ivy, Honeysuckle and Black bryony. The hedgerows provide a link to the traditional land use of Brocks Hill and are a source of cultural and historical importance, educational opportunities and value to wildlife.

Throughout the hedgerows are a number of mature trees: these form an important habitat component in their own right as the oldest trees on site, supporting a variety of wildlife. Some of these hedgerow standards have now been incorporated into the woodland compartments and can provide a seed source for natural regeneration. Ash is the most common hedgerow tree at Brocks Hill, with over 50 individuals scattered throughout the hedges. Pedunculate oak, Sycamore, Horse chestnut, Apple, Cherry, Crack willow and Norway maple make up the other hedgerow trees at the country park. Some of the best examples of mature trees at the country park are Oak and Ash, providing visitors with a chance to view the majesty of large trees throughout the seasons.

Hedgerow standards will be allowed to die back naturally, with management on the trees only carried out for the purposes of health and safety. These trees can provide a range of valuable habitats as they develop veteran features including rot holes and dead wood. The hedges are an accessible habitat, with many opportunities for visitors to get up close to appreciate wildlife and the traditional hedgelaying techniques on display. Many of the paths throughout the park run adjacent to hedgerows, with provision of benches in a number of places. Access through hedgerows is

discouraged to reduce disturbance to this habitat and its resident wildlife. Many areas where visitors have cut through hedges across the park were blocked in winter 2017/2018 using dead hedging materials: this practice will be continued in 2018/2019.

### **Wildlife**

Hedgerows are important wildlife corridors for a range of species, including plants. They provide shelter, foraging and nesting opportunities for mammals, birds and insects. Many bird species have been recorded using the hedges for singing, breeding and foraging, including Starling, House sparrow, Blackcap, Robin, Blackbird, Chaffinch, Blue tit, Bullfinch and Goldfinch. Hedges and scrub are some of the most important habitats for many nesting birds.

Pipistrelle bats have been recorded foraging along hedges at the south of the site: high diversity of hedgerow species and the presence of mature trees are beneficial in providing insect food and potential roosting sites. Small mammals such as weasels have been observed utilising the hedgerows, with the potential for mice, voles and badgers making use of the hedges for shelter and feeding.

The mature trees on site support a diverse variety of wildlife, with potential for high insect biomass in their canopies as well as dead wood for specialist suites of invertebrates, fungi and nesting birds. Great spotted woodpeckers and Green woodpeckers have utilised the mature Ash trees for nesting and displaying courtship behaviour. Many of the trees also support large amounts of ivy that can be beneficial for roosting bats, nesting wrens and pollinators such as hoverflies and Red admiral butterflies. The multitude of habitat elements provided by the mature trees make them one of the most important features at Brocks Hill.



**Figure 28. Great spotted woodpecker nesting in mature ash tree**

## Management Objectives

- Continue to manage hedges traditionally through a rotation of hedgelaying and trimming where required.
- Ensure a diversity of hedgerow species and structures to benefit wildlife.
- Conserve mature hedgerow trees and retain dead wood/dead limbs where possible.
- Monitor and install bird and bat boxes on appropriate hedgerow trees.

## Management Prescriptions

The hedgerows at Brocks Hill have been managed with a mixture of traditional hedge laying and flail cutting. Since the country park opened, the majority of the hedges have been laid at some point since 2001, with many sections laid in 2004 and 2005, and smaller sections laid in subsequent years. Hedge laying is carried out by hand with the help of the volunteers, using stakes and binders harvested in the woods where possible. In previous years, hedge laying sessions have been held in the park by lead volunteers and TCV.

Hedge laying will be carried out approximately every 10 years on hedges across the site, however some sections are now overdue for management. Hedge laying will need to fit into the winter schedule around woodland thinning, which has taken priority over some works due to being very extensive and overdue. It is hoped that hedge laying can resume during the winter of 2019/2020, with a new schedule to be created before works commence.

Hedge trimming with a tractor-mounted flail may be carefully carried out on some suitable sections of hedge. Ideally, trimming following on from hedge laying will promote a suitable compact structure, and can be carried out on a three year cycle.

Carrying out hedge laying on a rotational basis provides a variety of age structures throughout the park, each with their own benefits. Dense, compact hedges provide shelter and screening for nesting birds and mammals, whilst overgrown hedges contain an abundance of flowers and berries for a range of species.

Gap infilling with whips took place in 2013/2014 across all of the boundary hedgerows through support from the Stepping Stones Management Project and the Woodland Trust. In-filling gaps in the hedgerows with appropriate native species will be carried out where required following hedgelaying. Some hedges have old barbed wire fencing adjacent to them: in previous years, some of this fencing has been removed. As hedges are re-laid, fencing removal can also be carried out where appropriate.



**Figure 29. Making stakes for traditional hedge laying**

The mature hedgerow trees on site are a management priority to ensure they can continue to grow and die back naturally, with minimal intervention. The trees will be included in the annual tree safety surveys carried out by the Tree Officer, with works such as pollarding, pruning or limb removal carried out for health and safety purposes where required. Standing and fallen dead wood is a valuable habitat and will be retained where possible. Some trees are showing signs of die back, especially along the southern boundary hedge: this may be exacerbated by root damage from the adjacent arable field.

A key management method includes halo thinning: some of the mature trees on site have been negatively affected by woodland planting carried out too close and damaging or compromising the spread of their crowns. Work commenced during tree thinning operations in 2017 and 2018 to halo thin around affected trees. As adjacent woodland compartments mature, hedgerow standards will be preserved through continual halo thinning where required.

Bird and bat boxes installed on appropriate hedgerow trees can provide nesting and roosting opportunities. Three new bird boxes and three new bat boxes were installed in 2017, with a small number of older wooden boxes still in place on the trees. These will continue to be monitored, with additional boxes to be put up in suitable locations where necessary. Woodcrete boxes should be considered due to their durability and high levels of nesting occupancy.

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## Appendix 1

## Brocks Hill Work Programme 2018 to 2022

[illegible]



Cut and rake southern part of Wildflower Meadow	5g																	
Cut and rake grass around orchard trees	5e																	
Hedge laying and trimming	6																	
Mature tree management (e.g. halo thinning)	6																	
Monitoring and installing new bird and bat boxes	6																	
<b>Site Maintenance</b>	<b>Compartments/areas</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Amenity grass cutting	1e, 1f, 1g & around centre																	
Path/ride grass cutting	4 & all paths																	
Trimming around benches, knee rails and gateways	All compartments																	
Emptying dog bins and litter bins	All bins																	
Litterpicking	All compartments																	
Treating benches, knee rails and gateways	All compartments																	
Path maintenance	All compartments																	
Dismantling dens in woods	4																	
<b>Surveys</b>																		
Annual tree safety survey	4 & 6																	
Bird surveys	All compartments																	
Bee surveys	All compartments																	
Butterfly surveys	All compartments																	

Botany surveys	5																	
Bat surveys	All compartments																	
Fungi surveys	All compartments																	
Gall surveys	All compartments																	
<b>Interpretation</b>	<b>Compartments/areas</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Create seasonal interpretation to display in visitor centre	Visitor centre																	
Install signs on small meadows to discourage trampling	5e & 5g																	
Install signs in orchard to inform visitors about fruit picking	3																	
<b>Projects</b>																		
Re-plant earth bank by visitor centre	1c																	
Stake soft fruit trees in orchard	3																	
Put up tree tags on orchard trees	3																	
Plant woodland wildflowers in woods	4																	
Re-seed improved grassland with wildflower mix	5d																	

<b>Works completed</b>	<b>Compartments/areas</b>	<b>Year</b>
Memorial mound completed	<b>1d</b>	2013
Storage barns built	<b>Next to visitor centre</b>	2014
Trees pollarded by Lucas ponds	<b>2b</b>	2014
New tree planting	<b>4l &amp; 4n</b>	2014
New tree planting	<b>4m</b>	2017
Extensive clearance of Educational ponds	<b>2a</b>	2017
New knee rail installed around Educational ponds	<b>2a</b>	2017
Hedge adjacent to natural play area laid	<b>6</b>	2017
Hedge adjacent to Field pond 2d laid	<b>6</b>	2017
Path from car park to visitor centre tarmacked	<b>1</b>	2017
Gravel surfacing under benches	<b>All compartments</b>	2017
Coppice area cut	<b>4e</b>	2017
2.4ha of woodland thinned	<b>4</b>	2018

## Appendix 2

### Brocks Hill Country Park Species List

Group	Common name	Latin name
Amphibians	Common Toad	<i>Bufo bufo</i>
Amphibians	Smooth Newt	<i>Lissotriton vulgaris</i>
Amphibians	Common Frog	<i>Rana temporaria</i>
Bacteria		<i>Agrobacterium tumefaciens</i>
Bacteria		<i>Rhizobium trifolii</i>
Bees, Wasps, Ants	Grey Mining Bee	<i>Andrena cineraria</i>
Bees, Wasps, Ants	Yellow-legged Mining Bee	<i>Andrena flavipes</i>
Bees, Wasps, Ants	Tawny Mining Bee	<i>Andrena fulva</i>
Bees, Wasps, Ants	Early Mining Bee	<i>Andrena haemorrhoa</i>
Bees, Wasps, Ants	Buffish Mining Bee	<i>Andrena nigroaenea</i>
Bees, Wasps, Ants	Grey-patched Mining Bee	<i>Andrena nitida</i>
Bees, Wasps, Ants	Chocolate Mining Bee	<i>Andrena scotica</i>
Bees, Wasps, Ants	Ram's-horn Gall Wasp	<i>Andricus aries</i>
Bees, Wasps, Ants	Artichoke Gall Wasp	<i>Andricus foecundatrix</i>
Bees, Wasps, Ants		<i>Andricus grossularia</i>
Bees, Wasps, Ants	Oak Marble Gall Wasp	<i>Andricus kollari</i>
Bees, Wasps, Ants	Cola-nut Gall	<i>Andricus lignicola</i>
Bees, Wasps, Ants		<i>Andricus quercuscorticis</i>
Bees, Wasps, Ants	European Wool-carder Bee	<i>Anthidium manicatum</i>
Bees, Wasps, Ants	Hairy-footed Flower Bee	<i>Anthophora plumipes</i>
Bees, Wasps, Ants	Honey Bee	<i>Apis mellifera</i>
Bees, Wasps, Ants	Oak Apple Gall Wasp	<i>Biorhiza pallida</i>
Bees, Wasps, Ants	Field Cuckoo Bumblebee	<i>Bombus campestris</i>
Bees, Wasps, Ants	Garden Bumblebee	<i>Bombus hortorum</i>
Bees, Wasps, Ants	Tree Bumblebee	<i>Bombus hypnorum</i>
Bees, Wasps, Ants	Red-tailed Bumblebee	<i>Bombus lapidarius</i>

Bees, Wasps, Ants	White-tailed Bumble Bee	<i>Bombus lucorum agg.</i>
Bees, Wasps, Ants	Common Carder Bumblebee	<i>Bombus pascuorum</i>
Bees, Wasps, Ants	Early Bumblebee	<i>Bombus pratorum</i>
Bees, Wasps, Ants	Hill Cuckoo Bee	<i>Bombus rupestris</i>
Bees, Wasps, Ants	Buff-tailed Bumblebee	<i>Bombus terrestris</i>
Bees, Wasps, Ants	Vestal Cuckoo Bumblebee	<i>Bombus vestalis</i>
Bees, Wasps, Ants	Barbut's Cuckoo Bee	<i>Bombus barbutellus</i>
Bees, Wasps, Ants	Ruby-tailed wasp	<i>Chrysis sp.</i>
Bees, Wasps, Ants	Cherry Gall Wasp	<i>Cynips quercusfolii</i>
Bees, Wasps, Ants	Smooth Pea Gall Wasp	<i>Diplolepis eglanteriae</i>
Bees, Wasps, Ants	Sputnik Gall Wasp	<i>Diplolepis nervosa</i>
Bees, Wasps, Ants	Bedeguar Gall Wasp	<i>Diplolepis rosae</i>
Bees, Wasps, Ants	Bronze Furrow Bee	<i>Halictus tumulorum</i>
Bees, Wasps, Ants	Leafcutter Bee	<i>Megachile willughbiella</i>
Bees, Wasps, Ants	Smooth Spangle Gall	<i>Neuroterus albipes</i>
Bees, Wasps, Ants	Oyster Gall Wasp	<i>Neuroterus anthracinus</i>
Bees, Wasps, Ants	Silk Button Gall Wasp	<i>Neuroterus numismalis</i>
Bees, Wasps, Ants	Spangle Gall Wasp	<i>Neuroterus quercusbaccarum</i>
Bees, Wasps, Ants	Gooden's Nomad Bee	<i>Nomada goodeniana</i>
Bees, Wasps, Ants	Red Mason Bee	<i>Osmia bicornis</i>
Bees, Wasps, Ants	Orange-vented Mason Bee	<i>Osmia leaiana</i>
Bees, Wasps, Ants	Common Wasp	<i>Vespula vulgaris</i>
Bees, Wasps, Ants		<i>Aylax minor</i>
Bees, Wasps, Ants		<i>Andricus callidoma</i>
Bees, Wasps, Ants		<i>Andricus corruptrix</i>
Bees, Wasps, Ants		<i>Andricus curvator</i>
Bees, Wasps, Ants		<i>Andricus gemmeus</i>
Bees, Wasps, Ants		<i>Andricus inflator</i>
Bees, Wasps, Ants		<i>Andricus lucidus</i>
Bees, Wasps, Ants		<i>Andricus quadrilineatus</i>
Bees, Wasps, Ants		<i>Andricus quercuscalicis</i>

Bees, Wasps, Ants		<i>Andricus quercusradicis</i>
Bees, Wasps, Ants		<i>Andricus paradoxis</i>
Bees, Wasps, Ants		<i>Andricus seminationis</i>
Bees, Wasps, Ants		<i>Andricus sieboldi</i>
Bees, Wasps, Ants		<i>Andricus solitarius</i>
Bees, Wasps, Ants		<i>Cynips agama</i>
Bees, Wasps, Ants		<i>Cynips disticha</i>
Bees, Wasps, Ants		<i>Cynips divisa</i>
Bees, Wasps, Ants		<i>Cynips longiventris</i>
Beetles	2 Spot Ladybird	<i>Adalia bipunctata</i>
Beetles	10 Spot Ladybird	<i>Adalia decempunctata</i>
Beetles	Kidney-spot Ladybird	<i>Chilocorus renipustulatus</i>
Beetles	7 Spot Ladybird	<i>Coccinella septempunctata</i>
Beetles	Green Dock Beetle	<i>Gastrophysa viridula</i>
Beetles	Harlequin Ladybird	<i>Harmonia axyridis</i>
Beetles		<i>Nedysus quadrimaculatus</i>
Beetles	Devil's Coach Horse	<i>Ocypus olens</i>
Beetles	Swollen-thighed Beetle	<i>Oedemera nobilis</i>
Beetles	14 Spot ladybird	<i>Propylea quattuordecimpunctata</i>
Beetles	22 Spot Ladybird	<i>Psyllobora vigintiduopunctata</i>
Beetles	Black Clock Beetle	<i>Pterostichus madidus</i>
Beetles		<i>Stenocorus meridianus</i>
Beetles	16 Spot Ladybird	<i>Tytthaspis sedecimpunctata</i>
Birds	Sparrowhawk	<i>Accipiter nisus</i>
Birds	Long-tailed Tit	<i>Aegithalos caudatus</i>
Birds	Skylark	<i>Alauda arvensis</i>
Birds	Kingfisher	<i>Alcedo atthis</i>
Birds	Mallard	<i>Anas platyrhynchos</i>
Birds	Swift	<i>Apus apus</i>
Birds	Grey Heron	<i>Ardea cinerea</i>
Birds	Little Owl	<i>Athene noctua</i>



Birds	Buzzard	<i>Buteo buteo</i>
Birds	Linnet	<i>Carduelis cannabina</i>
Birds	Goldfinch	<i>Carduelis carduelis</i>
Birds	Greenfinch	<i>Carduelis chloris</i>
Birds	Treecreeper	<i>Certhia familiaris</i>
Birds	Black-headed Gull	<i>Chroicocephalus ridibundus</i>
Birds	Feral Pigeon (Rock Dove)	<i>Columba livia</i>
Birds	Wood Pigeon	<i>Columba palumbus</i>
Birds	Raven	<i>Corvus corax</i>
Birds	Carrion Crow	<i>Corvus corone</i>
Birds	Jackdaw	<i>Corvus monedula</i>
Birds	Blue Tit	<i>Cyanistes caeruleus</i>
Birds	House Martin	<i>Delichon urbicum</i>
Birds	Great Spotted Woodpecker	<i>Dendrocopos major</i>
Birds	Little Egret	<i>Egretta garzetta</i>
Birds	Yellowhammer	<i>Emberiza citrinella</i>
Birds	Reed bunting	<i>Emberiza schoeniclus</i>
Birds	Robin	<i>Erithacus rubecula</i>
Birds	Peregrine Falcon	<i>Falco peregrinus</i>
Birds	Kestrel	<i>Falco tinnunculus</i>
Birds	Chaffinch	<i>Fringilla coelebs</i>
Birds	Moorhen	<i>Gallinula chloropus</i>
Birds	Jay	<i>Garrulus glandarius</i>
Birds	Red Kite	<i>Milvus milvus</i>
Birds	Pied Wagtail	<i>Motacilla alba</i>
Birds	Great Tit	<i>Parus major</i>
Birds	Coal tit	<i>Pariparus ater</i>
Birds	House Sparrow	<i>Passer domesticus</i>
Birds	Chiffchaff	<i>Phylloscopus collybita</i>
Birds	Willow Warbler	<i>Phylloscopus trochilus</i>
Birds	Magpie	<i>Pica pica</i>

Birds	Green Woodpecker	<i>Picus viridis</i>
Birds	Dunnock	<i>Prunella modularis</i>
Birds	Bullfinch	<i>Pyrrhula pyrrhula</i>
Birds	Goldcrest	<i>Regulus regulus</i>
Birds	Collared Dove	<i>Streptopelia decaocto</i>
Birds	Tawny Owl	<i>Strix aluco</i>
Birds	Starling	<i>Sturnus vulgaris</i>
Birds	Blackcap	<i>Sylvia atricapilla</i>
Birds	Garden Warbler	<i>Sylvia borin</i>
Birds	Whitethroat	<i>Sylvia communis</i>
Birds	Wren	<i>Troglodytes troglodytes</i>
Birds	Redwing	<i>Turdus iliacus</i>
Birds	Blackbird	<i>Turdus merula</i>
Birds	Song Thrush	<i>Turdus philomelos</i>
Birds	Fieldfare	<i>Turdus pilaris</i>
Birds	Mistle Thrush	<i>Turdus viscivorus</i>
Birds	Canada Goose	<i>Branta canadensis</i>
Birds	Stock Dove	<i>Columba oenas</i>
Birds	Pheasant	<i>Phasianus colchicus</i>
Birds	Grey Wagtail	<i>Motacilla cinerea</i>
Birds	Sedge Warbler	<i>Acrocephalus schoenobaenus</i>
Birds	Reed Warbler	<i>Acrocephalus scirpaceus</i>
Birds	Woodcock	<i>Scolopax rusticola</i>
Birds	Common Gull	<i>Larus canus</i>
Birds	Lesser Spotted Woodpecker	<i>Dryobates minor</i>
Birds	Meadow Pipit	<i>Anthus pratensis</i>
Birds	Nuthatch	<i>Sitta europaea</i>
Birds	Rook	<i>Corvus frugilegus</i>
Birds	Swallow	<i>Hirundo rustica</i>
Birds	Turtle Dove	<i>Streptopelia turtur</i>
Bugs	Hawthorn Shieldbug	<i>Acanthosoma haemorrhoidale</i>

Bugs	Common Flower Bug	<i>Anthocoris nemorum</i>
Bugs		<i>Callicorixa praeusta</i>
Bugs	Dock Bug	<i>Coreus marginatus</i>
Bugs	Sloe Bug	<i>Dolycoris baccarum</i>
Bugs		<i>Ectopsocus petersi</i>
Bugs	Green Shieldbug	<i>Palomena prasina</i>
Bugs	Pygmy Backswimmer	<i>Plea minutissima</i>
Bugs		<i>Psyllopsis fraxini</i>
Bugs		<i>Trioza remota</i>
Bugs		<i>Asterodiaspis sp.</i>
Bugs		<i>Trioza remota</i>
Bugs		<i>Phyllaphis fagi</i>
Bugs		<i>Dyaphis plantaginea</i>
Bugs		<i>Pemphigus spyrothecae</i>
Bugs		<i>Eriosoma ulmi</i>
Bugs		<i>Tetraneura ulmi</i>
Bugs		<i>Eriosoma languginosum</i>
Bugs		<i>Kaltenbachiella pallida</i>
Bugs		<i>Eriosoma languginosum</i>
Bugs		<i>Psyllopsis fraxini</i>
Butterflies	Small Tortoiseshell	<i>Aglais urticae</i>
Butterflies	Orange Tip	<i>Anthocharis cardamines</i>
Butterflies	Ringlet	<i>Aphantopus hyperantus</i>
Butterflies	Brown Argus	<i>Aricia agestis</i>
Butterflies	Holly Blue	<i>Celastrina argiolus</i>
Butterflies	Brimstone	<i>Gonepteryx rhamni</i>
Butterflies	Peacock	<i>Inachis io</i>
Butterflies	Small Copper	<i>Lycaena phlaeas</i>
Butterflies	Meadow Brown	<i>Maniola jurtina</i>
Butterflies	Large Skipper	<i>Ochlodes sylvanus</i>
Butterflies	Speckled Wood	<i>Pararge aegeria</i>

Butterflies	Large White	<i>Pieris brassicae</i>
Butterflies	Green-veined White	<i>Pieris napi</i>
Butterflies	Small White	<i>Pieris rapae</i>
Butterflies	Comma	<i>Polygonia c-album</i>
Butterflies	Common Blue	<i>Polyommatus icarus</i>
Butterflies	Gatekeeper	<i>Pyronia tithonus</i>
Butterflies	Essex Skipper	<i>Thymelicus lineola</i>
Butterflies	Small Skipper	<i>Thymelicus sylvestris</i>
Butterflies	Red Admiral	<i>Vanessa atalanta</i>
Butterflies	Painted Lady	<i>Vanessa cardui</i>
Butterflies	Marbled White	<i>Melanargia galathea</i>
Dragonflies and Damselflies	Southern Hawker	<i>Aeshna cyanea</i>
Dragonflies and Damselflies	Emperor Dragonfly	<i>Anax imperator</i>
Dragonflies and Damselflies	Banded Demoiselle	<i>Calopteryx splendens</i>
Dragonflies and Damselflies	Azure Damselfly	<i>Coenagrion puella</i>
Dragonflies and Damselflies	Common Blue Damselfly	<i>Enallagma cyathigerum</i>
Dragonflies and Damselflies	Blue-tailed Damselfly	<i>Ischnura elegans</i>
Dragonflies and Damselflies	Broad-bodied Chaser	<i>Libellula depressa</i>
Dragonflies and Damselflies	Large Red Damselfly	<i>Pyrrosoma nymphula</i>
Dragonflies and Damselflies	Common Darter	<i>Sympetrum striolatum</i>
Ferns & Horsetails	Male-fern	<i>Dryopteris filix-mas</i>
Fish	Three-spined Stickleback	<i>Gasterosteus aculeatus</i>
Flies, Gnats and Midges	Bee Fly	<i>Bombylius major</i>
Flies, Gnats and Midges	Hawthorn Button-top Gall	<i>Dasineura crataegi</i>
Flies, Gnats and Midges	Blackberry Leaf Midge	<i>Dasineura plicatrix</i>
Flies, Gnats and Midges		<i>Dasineura trifolii</i>
Flies, Gnats and Midges		<i>Dasineura urticae</i>
Flies, Gnats and Midges		<i>Pollenia rudis</i>
Flies, Gnats and Midges		<i>Rhagio scolopaceus</i>
Flies, Gnats and Midges		<i>Semudobia tarda</i>
Flies, Gnats and Midges	Thistle Gall Fly	<i>Urophora cardui</i>

Flies, Gnats and Midges	<i>Urophora jaceana</i>
Flies, Gnats and Midges	<i>Dasineura irregularis</i>
Flies, Gnats and Midges	<i>Dasineura tympani</i>
Flies, Gnats and Midges	<i>Dasineura tortilis</i>
Flies, Gnats and Midges	<i>Semudobia betulae</i>
Flies, Gnats and Midges	<i>Semudobia skuhravae</i>
Flies, Gnats and Midges	<i>Dasineura kiefferiana</i>
Flies, Gnats and Midges	<i>Contarina coryli</i>
Flies, Gnats and Midges	<i>Hartigiola annulipes</i>
Flies, Gnats and Midges	<i>Dasineura ulmaria</i>
Flies, Gnats and Midges	<i>Dasineura pustulans</i>
Flies, Gnats and Midges	<i>Dasineura acrophila</i>
Flies, Gnats and Midges	<i>Dasineura fraxini</i>
Flies, Gnats and Midges	<i>Dasineura fraxinea</i>
Flies, Gnats and Midges	<i>Cecidophyes rouhollahi</i>
Flies, Gnats and Midges	<i>Rondaniola bursaria</i>
Flies, Gnats and Midges	<i>Dasineura kiefferi</i>
Flies, Gnats and Midges	<i>Macrolabis heraclei</i>
Flies, Gnats and Midges	<i>Dasineura lamiicola</i>
Flies, Gnats and Midges	<i>Dasineura populeti</i>
Flies, Gnats and Midges	<i>Harmandiola tremulae</i>
Flies, Gnats and Midges	<i>Macrodiplosis pustularis</i>
Flies, Gnats and Midges	<i>Macrodiplosis roboris</i>
Flies, Gnats and Midges	<i>Dasineura rosae</i>
Flies, Gnats and Midges	<i>Contarinia rumicis</i>
Flies, Gnats and Midges	<i>Iteomyia capreae</i>
Flies, Gnats and Midges	<i>Dasineura marginemtorquens</i>
Flies, Gnats and Midges	<i>Cystiphora sonchi</i>
Flies, Gnats and Midges	<i>Taxomyia taxi</i>
Flies, Gnats and Midges	<i>Japiella veronicae</i>
Flies, Gnats and Midges	<i>Blennocampa phyllocolpa</i>

Flies, Gnats and Midges		<i>Pontania proxima</i>
Flies, Gnats and Midges		<i>Eupontania pedunculi</i>
Flies, Gnats and Midges		<i>Pontania bridgmanii</i>
Flies, Gnats and Midges		<i>Pontania proxima</i>
Flies, Gnats and Midges		<i>Campiglossa misella</i>
Flies, Gnats and Midges		<i>Tephritis bardanae</i>
Flies, Gnats and Midges		<i>Terellia tussilaginis</i>
Fungi	Blushing Rosette	<i>Abortiporus biennis</i>
Fungi	Jelly Ear Fungus	<i>Auricularia auricula-judae</i>
Fungi	Smoky Bracket	<i>Bjerkandera adusta</i>
Fungi	Netted Crust	<i>Byssomerulius corium</i>
Fungi	Small Stagshorn	<i>Calocera cornea</i>
Fungi	Copper Spike	<i>Chroogomphus rutilus</i>
Fungi	Glistening Inkcap	<i>Coprinellus micaceus</i>
Fungi	Oak Mildew	<i>Erysiphe alphitoides</i>
Fungi	Black Witches Butter	<i>Exidia glandulosa</i>
Fungi	Southern Bracket	<i>Ganoderma australe</i>
Fungi	Pear Rust	<i>Gymnosporangium sabinae</i>
Fungi	Poisonpie	<i>Hebeloma crustuliniforme</i>
Fungi	Scarlet Waxcap	<i>Hygrocybe coccinea</i>
Fungi	Shaggy Bracket	<i>Inonotus hispidus</i>
Fungi	Coconut Milkcap	<i>Lactarius glyciosmus</i>
Fungi	Stump Puffball	<i>Lycoperdon pyriforme</i>
Fungi	Orange Bonnet	<i>Mycena acicula</i>
Fungi	Snapping Bonnet	<i>Mycena vitilis</i>
Fungi	Coral Spot	<i>Nectria cinnabarina</i>
Fungi	Brown Rollrim	<i>Paxillus involutus</i>
Fungi	Sycamore Tarspot	<i>Rhytisma acerinum</i>
Fungi	Scarlet Elfcup	<i>Sarcoscypha austriaca</i>
Fungi		<i>Sawadaea bicornis</i>
Fungi	Leopard Earthball	<i>Scleroderma areolatum</i>



Fungi	Scaly Earthball	<i>Scleroderma verrucosum</i>
Fungi	Blue Roundhead	<i>Stropharia caerulea</i>
Fungi	Turkeytail	<i>Trametes versicolor</i>
Fungi	Yellow Brain	<i>Tremella mesenterica</i>
Fungi	Grey Knight	<i>Tricholoma terreum</i>
Fungi	Candlesnuff Fungus	<i>Xylaria hypoxylon</i>
Fungi		<i>Gymnosporangium clacariiforme</i>
Fungi		<i>Taphrina cratargi</i>
Fungi		<i>Taphrina johansonii</i>
Fungi		<i>Taphrina pruni</i>
Fungi		<i>Puccinia magnusiana</i>
Fungi		<i>Puccinia lagenophorae</i>
Fungi		<i>Puccinia urticata</i>
Fungi		<i>Taphrin alni</i>
Fungi		<i>Taphrina tosquinetii</i>
Fungi		<i>Taphrina sadebeckii</i>
Fungi		<i>Taphrina betulina</i>
Fungi		<i>Albugo candida</i>
Fungi		<i>Taphrina carpini</i>
Grasses, Rushes & Sedges	Creeping Bent	<i>Agrostis stolonifera</i>
Grasses, Rushes & Sedges	Meadow Foxtail	<i>Alopecurus pratensis</i>
Grasses, Rushes & Sedges	Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>
Grasses, Rushes & Sedges	False Oat-grass	<i>Arrhenatherum elatius</i>
Grasses, Rushes & Sedges	Common Soft-brome	<i>Bromus hordeaceus subsp. hordeaceus</i>
Grasses, Rushes & Sedges	Crested Dog's-tail	<i>Cynosurus cristatus</i>
Grasses, Rushes & Sedges	Cock's-foot	<i>Dactylis glomerata</i>
Grasses, Rushes & Sedges	Red Fescue	<i>Festuca rubra</i>
Grasses, Rushes & Sedges	Yorkshire-fog	<i>Holcus lanatus</i>
Grasses, Rushes & Sedges	Smaller Cat's-tail	<i>Phleum bertolonii</i>
Grasses, Rushes & Sedges	Rough Meadow-grass	<i>Poa trivialis</i>
Grasshoppers & Crickets	Roesel's Bush-cricket	<i>Metrioptera roeselii</i>

Hoverflies		<i>Epistrophe eligans</i>
Hoverflies		<i>Leucozona lucorum</i>
Hoverflies		<i>Volucella zonaria</i>
Lacewings & Scorpionflies	Scorpion Fly	<i>Panorpa communis</i>
Lichens		<i>Lecidella elaeochroma</i>
Lichens		<i>Xanthoria parietina</i>
Mammals	Brown Hare	<i>Lepus europaeus</i>
Mammals	Badger	<i>Meles meles</i>
Mammals	Field Vole	<i>Microtus agrestis</i>
Mammals	Muntjac	<i>Muntiacus reevesi</i>
Mammals	Weasel	<i>Mustela nivalis</i>
Mammals	Noctule	<i>Nyctalus noctula</i>
Mammals	Rabbit	<i>Oryctolagus cuniculus</i>
Mammals	Common Pipistrelle	<i>Pipistrellus pipistrellus</i>
Mammals	Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>
Mammals	Grey Squirrel	<i>Sciurus carolinensis</i>
Mammals	Pygmy Shrew	<i>Sorex minutus</i>
Mammals	Mole	<i>Talpa europaea</i>
Mammals	Red Fox	<i>Vulpes vulpes</i>
Mammals	Stoat	<i>Mustela erminea</i>
Mayflies		<i>Cloeon dipterum</i>
Mosses & Liverworts	Rough-stalked Feather-moss	<i>Brachythecium rutabulum</i>
Moths	The Sycamore	<i>Acronicta aceris</i>
Moths	The Brick	<i>Agrochola circellaris</i>
Moths	Heart and Dart	<i>Agrotis exclamationis</i>
Moths	Copper Underwing	<i>Amphipyra pyramidea</i>
Moths	Small Magpie	<i>Anania hortulata</i>
Moths	Nettle-tap	<i>Anthophila fabriciana</i>
Moths	Light Arches	<i>Apamea lithoxylaea</i>
Moths	Dark Arches	<i>Apamea monoglypha</i>
Moths	Rustic Shoulder-knot	<i>Apamea sordens</i>

Moths	Bee Moth	<i>Aphomia sociella</i>
Moths	Silver Y	<i>Autographa gamma</i>
Moths	The Flame	<i>Axylia putris</i>
Moths	Peppered Moth	<i>Biston betularia</i>
Moths	Common Wave	<i>Cabera exanthemata</i>
Moths	Light Emerald	<i>Campaea margaritaria</i>
Moths	Long-horned Flat-body	<i>Carcina quercana</i>
Moths	Barred Yellow	<i>Cidaria fulvata</i>
Moths	The Dun-bar	<i>Cosmia trapezina</i>
Moths	The Coronet	<i>Craniophora ligustri</i>
Moths	Elephant Hawk-moth	<i>Deilephila elpenor</i>
Moths	Ingrailed Clay	<i>Diarsia mendica</i>
Moths	Buff Footman	<i>Eilema depressa</i>
Moths	Dingy Footman	<i>Eilema griseola</i>
Moths	Brown China-mark	<i>Elophila nymphaeata</i>
Moths	Dusky Thorn	<i>Ennomos fuscantaria</i>
Moths	Light Brown Apple Moth	<i>Epiphyas postvittana</i>
Moths	Common Carpet	<i>Epirrhoe alternata</i>
Moths	Mottled Umber	<i>Erannis defoliaria</i>
Moths	Burnet Companion	<i>Euclidia glyphica</i>
Moths	The Satellite	<i>Eupsilia transversa</i>
Moths	The Drinker	<i>Euthrix potatoria</i>
Moths	Buff Arches	<i>Habrosyne pyritoides</i>
Moths	Common Emerald	<i>Hemithea aestivaria</i>
Moths	Ghost Moth	<i>Hepialus humuli</i>
Moths	The Snout	<i>Hypena proboscidalis</i>
Moths	Riband Wave	<i>Idaea aversata</i>
Moths	Beautiful Hook-tip	<i>Laspeyria flexula</i>
Moths	Clouded Border	<i>Lomaspilis marginata</i>
Moths	Clouded Silver	<i>Lomographa temerata</i>
Moths	Smoky Wainscot	<i>Mythimna impura</i>

Moths	Least Yellow Underwing	<i>Noctua interjecta</i>
Moths	Lesser Broad-bordered Yellow Underwing	<i>Noctua janthe</i>
Moths	Large Yellow Underwing	<i>Noctua pronuba</i>
Moths	Flame Shoulder	<i>Ochropleura plecta</i>
Moths	Middle-barred Minor	<i>Oligia fasciuncula</i>
Moths	Marbled Minor agg.	<i>Oligia strigilis agg.</i>
Moths	Brimstone Moth	<i>Opisthograptis luteolata</i>
Moths	The Vapourer	<i>Orgyia antiqua</i>
Moths	Swallow-tailed Moth	<i>Ourapteryx sambucaria</i>
Moths	Lesser Swallow Prominent	<i>Pheosia gnoma</i>
Moths	Angle Shades	<i>Phlogophora meticulosa</i>
Moths	Green Silver-lines	<i>Pseudoips prasinana</i>
Moths	White Plume Moth	<i>Pterophorus pentadactyla</i>
Moths	Straw Dot	<i>Rivula sericealis</i>
Moths	The Herald	<i>Scoliopteryx libatrix</i>
Moths	Buff Ermine	<i>Spilosoma lutea</i>
Moths	Figure Of Eighty	<i>Tethea ocularis</i>
Moths	Peach Blossom	<i>Thyatira batis</i>
Moths	Blood-vein	<i>Timandra comae</i>
Moths	Green Oak Tortrix	<i>Tortrix viridana</i>
Moths	Cinnabar	<i>Tyria jacobaeae</i>
Moths	Setaceous Hebrew Character	<i>Xestia c-nigrum</i>
Moths	Square-spot Rustic	<i>Xestia xanthographa</i>
Moths	Leopard Moth	<i>Zeuzera pyrina</i>
Moths	Six-Spot Burnet	<i>Zygaena filipendulae</i>
Reptiles	Grass Snake	<i>Natrix natrix</i>
Slugs & Snails	Dusky Slug	<i>Arion subfuscus</i>
Slugs & Snails	Brown-lipped Snail	<i>Cepaea nemoralis</i>
Slugs & Snails	Garden Snail	<i>Cornu aspersum</i>
Slugs & Snails	Leopard Slug	<i>Limax maximus</i>

Slugs & Snails	Great Pond Snail	<i>Lymnaea stagnalis</i>
Slugs & Snails	Wandering Pond Snail	<i>Radix balthica</i>
Spiders, Harvestmen & Mites		<i>Aceria campestricola</i>
Spiders, Harvestmen & Mites	Cauliflower Gall Mite	<i>Aceria fraxinivora</i>
Spiders, Harvestmen & Mites		<i>Aceria macrochela</i>
Spiders, Harvestmen & Mites		<i>Aceria nalepai</i>
Spiders, Harvestmen & Mites	Garden Spider	<i>Araneus diadematus</i>
Spiders, Harvestmen & Mites		<i>Cecidophyes nudus</i>
Spiders, Harvestmen & Mites		<i>Eriophyes similis</i>
Spiders, Harvestmen & Mites	Nail Gall	<i>Eriophyes tiliae</i>
Spiders, Harvestmen & Mites		<i>Phyllocoptes goniothorax</i>
Spiders, Harvestmen & Mites		<i>Aceria heteronyx</i>
Spiders, Harvestmen & Mites		<i>Aceria myriadeum</i>
Spiders, Harvestmen & Mites		<i>Acericecis campestris</i>
Spiders, Harvestmen & Mites		<i>Aceria eriobia</i>
Spiders, Harvestmen & Mites		<i>Aceria cephalonea</i>
Spiders, Harvestmen & Mites		<i>Aceria pseudoplatani</i>
Spiders, Harvestmen & Mites		<i>Aculus hippocastani</i>
Spiders, Harvestmen & Mites		<i>Acalitus brevitarsus</i>
Spiders, Harvestmen & Mites		<i>Eriophyes laevis</i>
Spiders, Harvestmen & Mites		<i>Acalitus calycophthiris</i>
Spiders, Harvestmen & Mites		<i>Acalitis rudis</i>
Spiders, Harvestmen & Mites		<i>Eriophyes leionotus</i>
Spiders, Harvestmen & Mites		<i>Aceria tenella</i>
Spiders, Harvestmen & Mites		<i>Phytoptus avellanae</i>
Spiders, Harvestmen & Mites		<i>Phyllocoptruta corylis</i>
Spiders, Harvestmen & Mites		<i>Eriophyes crataegi</i>
Spiders, Harvestmen & Mites		<i>Aceria nervisequa</i>
Spiders, Harvestmen & Mites		<i>Acalitus stenaspis</i>
Spiders, Harvestmen & Mites		<i>Acalitus plicans</i>
Spiders, Harvestmen & Mites		<i>Phyllocoptes malinus</i>

Spiders, Harvestmen & Mites		<i>Aceria dispar</i>
Spiders, Harvestmen & Mites		<i>Phyllocoptes populi</i>
Spiders, Harvestmen & Mites		<i>Phyllocotes eupadi</i>
Spiders, Harvestmen & Mites		<i>Epitrimerus trilobus</i>
Spiders, Harvestmen & Mites		<i>Eriophyes sorbi</i>
Spiders, Harvestmen & Mites		<i>Cecidophyopsis psilaspis</i>
Spiders, Harvestmen & Mites		<i>Eriophyes leiosoma</i>
Spiders, Harvestmen & Mites		<i>Phytoptus tetratrichus</i>
Spiders, Harvestmen & Mites		<i>Eriophyes exilis</i>
Spiders, Harvestmen & Mites		<i>Aceria campestricola</i>
Spiders, Harvestmen & Mites		<i>Aceria campestricola</i>
Springtails & Bristletails		<i>Tomocerus minor</i>
Trees, Shrubs & Climbers	Field Maple	<i>Acer campestre</i>
Trees, Shrubs & Climbers	Snake Bark Maple	<i>Acer forrestii</i>
Trees, Shrubs & Climbers	Norway Maple	<i>Acer platanoides</i>
Trees, Shrubs & Climbers	Sycamore	<i>Acer pseudoplatanus</i>
Trees, Shrubs & Climbers	Horse-chestnut	<i>Aesculus hippocastanum</i>
Trees, Shrubs & Climbers	Alder	<i>Alnus glutinosa</i>
Trees, Shrubs & Climbers	Cut-leafed Alder	<i>Alnus glutinosa 'Imperialis'</i>
Trees, Shrubs & Climbers	Gold birch	<i>Betula ermanii</i>
Trees, Shrubs & Climbers	Downy birch	<i>Betula pubescens</i>
Trees, Shrubs & Climbers	Silver Birch	<i>Betula pendula</i>
Trees, Shrubs & Climbers	Himalayan Birch	<i>Betula utilis jacquemontii</i>
Trees, Shrubs & Climbers	Hornbeam	<i>Carpinus betulus</i>
Trees, Shrubs & Climbers	Hornbeam 'Fastigiata'	<i>Carpinus betulus 'Fastigiata'</i>
Trees, Shrubs & Climbers	Indian Bean Tree	<i>Catalpa bignonioides</i>
Trees, Shrubs & Climbers	Dogwood	<i>Cornus sanguinea</i>
Trees, Shrubs & Climbers	Dogwood 'Winter Flame'	<i>Cornus sanguinea 'Winter Flame'</i>
Trees, Shrubs & Climbers	Hazel	<i>Corylus avellana</i>
Trees, Shrubs & Climbers	Kent Cobnut	<i>Corylus maxima</i>
Trees, Shrubs & Climbers	Hawthorn	<i>Crataegus monogyna</i>

Trees, Shrubs & Climbers	Beech	<i>Fagus sylvatica</i>
Trees, Shrubs & Climbers	Narrow-leaved Ash	<i>Fraxinus angustifolia</i> 'Raywood'
Trees, Shrubs & Climbers	Manna ash	<i>Fraxinus ornus</i>
Trees, Shrubs & Climbers	Ash	<i>Fraxinus excelsior</i>
Trees, Shrubs & Climbers	Golden ash	<i>Fraxinus excelsior</i> 'Jaspidea'
Trees, Shrubs & Climbers	Weeping ash	<i>Fraxinus excelsior</i> 'Pendula'
Trees, Shrubs & Climbers	Ivy	<i>Hedera helix</i>
Trees, Shrubs & Climbers	Walnut	<i>Juglans regia</i>
Trees, Shrubs & Climbers	Tulip Tree	<i>Liriodendron tulipifera</i>
Trees, Shrubs & Climbers	Honeysuckle	<i>Lonicera periclymenum</i>
Trees, Shrubs & Climbers	Apple 'Allington Pippin'	<i>Malus domestica</i> 'Allington Pippin'
Trees, Shrubs & Climbers	Apple 'Annie Elizabeth'	<i>Malus domestica</i> 'Annie Elizabeth'
Trees, Shrubs & Climbers	Apple 'Barnack Beauty'	<i>Malus domestica</i> 'Barnack Beauty'
Trees, Shrubs & Climbers	Apple 'Bramley's Seedling'	<i>Malus domestica</i> 'Bramley's Seedling'
Trees, Shrubs & Climbers	Apple 'Brownlees Russet'	<i>Malus domestica</i> 'Brownlees Russet'
Trees, Shrubs & Climbers	Apple 'Cox's Pomona'	<i>Malus domestica</i> 'Cox's Pomona'
Trees, Shrubs & Climbers	Apple 'Dunmeller's Seedling'	<i>Malus domestica</i> 'Dunmeller's Seedling'
Trees, Shrubs & Climbers	Apple 'George Cave'	<i>Malus domestica</i> 'George Cave'
Trees, Shrubs & Climbers	Apple 'Golden Pippin'	<i>Malus domestica</i> 'Golden Pippin'
Trees, Shrubs & Climbers	Apple 'Newton Wonder'	<i>Malus domestica</i> 'Newton Wonder'
Trees, Shrubs & Climbers	Crab Apple	<i>Malus sylvestris</i>
Trees, Shrubs & Climbers	Mulberry	<i>Morus nigra</i>
Trees, Shrubs & Climbers	Norway Spruce	<i>Picea abies</i>
Trees, Shrubs & Climbers	Scots Pine	<i>Pinus sylvestris</i>
Trees, Shrubs & Climbers	Black Poplar	<i>Populus nigra</i> <i>Betulifolia</i>
Trees, Shrubs & Climbers	Aspen	<i>Populus tremula</i>
Trees, Shrubs & Climbers	Wild Cherry	<i>Prunus avium</i>
Trees, Shrubs & Climbers	Cherry 'Elton Heart'	<i>Prunus avium</i> 'Elton Heart'
Trees, Shrubs & Climbers	Wild Plum agg.	<i>Prunus domestica</i>
Trees, Shrubs & Climbers	Plum 'Early Rivers'	<i>Prunus domestica</i> 'Early Rivers'
Trees, Shrubs & Climbers	Plum 'Persnore Yellow Egg'	<i>Prunus domestica</i> 'Persnore Yellow Egg'



Trees, Shrubs & Climbers	Plum 'Cambridge Gage'	<i>Prunus domestica</i> 'Cambridge Gage'
Trees, Shrubs & Climbers	Damson 'Merryweather'	<i>Prunus insititia</i> 'Merryweather'
Trees, Shrubs & Climbers	Weeping Cherry	<i>Prunus pendula</i>
Trees, Shrubs & Climbers	Tibetan Cherry	<i>Prunus serrula</i>
Trees, Shrubs & Climbers	Blackthorn	<i>Prunus spinosa</i>
Trees, Shrubs & Climbers	Pear 'Buerre Hardy'	<i>Pyrus communis</i> 'Buerre Hardy'
Trees, Shrubs & Climbers	Pear 'Clapp's Favourite'	<i>Pyrus communis</i> 'Clapp's Favourite'
Trees, Shrubs & Climbers	Pear 'Conference'	<i>Pyrus communis</i> 'Conference'
Trees, Shrubs & Climbers	Pear 'Durondeau'	<i>Pyrus communis</i> 'Durondeau'
Trees, Shrubs & Climbers	Pedunculate Oak	<i>Quercus robur</i>
Trees, Shrubs & Climbers	Buckthorn	<i>Rhamnus cathartica</i>
Trees, Shrubs & Climbers	Dog-rose	<i>Rosa canina</i>
Trees, Shrubs & Climbers	Bramble agg.	<i>Rubus fruticosus</i> agg.
Trees, Shrubs & Climbers	White Willow	<i>Salix alba</i>
Trees, Shrubs & Climbers	Goat Willow	<i>Salix caprea</i>
Trees, Shrubs & Climbers	Crack-willow	<i>Salix fragilis</i>
Trees, Shrubs & Climbers	Elder	<i>Sambucus nigra</i>
Trees, Shrubs & Climbers	Rowan	<i>Sorbus aucuparia</i>
Trees, Shrubs & Climbers	Snowberry	<i>Symphoricarpos albus</i>
Trees, Shrubs & Climbers	Yew	<i>Taxus baccata</i>
Trees, Shrubs & Climbers	Common Lime	<i>Tilia platyphyllos</i> x <i>cordata</i> = <i>T. x europaea</i>
Trees, Shrubs & Climbers	Wayfaring-tree	<i>Viburnum lantana</i>
Trees, Shrubs & Climbers	Guelder Rose	<i>Viburnum opulus</i>
Wildflowers	Agrimony	<i>Agrimonia eupatoria</i>
Wildflowers	Garlic Mustard	<i>Alliaria petiolata</i>
Wildflowers	Scarlet Pimpernel	<i>Anagallis arvensis</i>
Wildflowers	Cow Parsley	<i>Anthriscus sylvestris</i>
Wildflowers	Black Horehound	<i>Ballota nigra</i>
Wildflowers	Daisy	<i>Bellis perennis</i>
Wildflowers	White Bryony	<i>Bryonia dioica</i>

Wildflowers	Marsh-marigold	<i>Caltha palustris</i>
Wildflowers	Large Bindweed	<i>Calystegia silvatica</i>
Wildflowers	Shepherd's-purse	<i>Capsella bursa-pastoris</i>
Wildflowers	Cuckooflower	<i>Cardamine pratensis</i>
Wildflowers	Sweet Chestnut	<i>Castanea sativa</i>
Wildflowers	Common Knapweed	<i>Centaurea nigra</i>
Wildflowers	Rosebay Willowherb	<i>Chamerion angustifolium</i>
Wildflowers	Fat-hen	<i>Chenopodium album</i>
Wildflowers	Enchanter's-nightshade	<i>Circaea lutetiana</i>
Wildflowers	Creeping Thistle	<i>Cirsium arvense</i>
Wildflowers	Marsh Thistle	<i>Cirsium palustre</i>
Wildflowers	Spear Thistle	<i>Cirsium vulgare</i>
Wildflowers	Pignut	<i>Conopodium majus</i>
Wildflowers	Field Bindweed	<i>Convolvulus arvensis</i>
Wildflowers	Smooth Hawk's-beard	<i>Crepis capillaris</i>
Wildflowers	Common Spotted-orchid	<i>Dactylorhiza fuchsii</i>
Wildflowers	Wild Carrot	<i>Daucus carota subsp. carota</i>
Wildflowers	Wild Teasel	<i>Dipsacus fullonum</i>
Wildflowers	Viper's Bugloss	<i>Echium vulgare</i>
Wildflowers	Great Willowherb	<i>Epilobium hirsutum</i>
Wildflowers	Broad-leaved Willowherb	<i>Epilobium montanum</i>
Wildflowers	Lesser Celandine	<i>Ficaria verna</i>
Wildflowers	Meadowsweet	<i>Filipendula ulmaria</i>
Wildflowers	Wild Strawberry	<i>Fragaria vesca</i>
Wildflowers	Hedge Bedstraw	<i>Galium album</i>
Wildflowers	Cleavers	<i>Galium aparine</i>
Wildflowers	Lady's Bedstraw	<i>Galium verum</i>
Wildflowers	Cut-leaved Crane's-bill	<i>Geranium dissectum</i>
Wildflowers	Meadow Crane's-bill	<i>Geranium pratense</i>
Wildflowers	Hedgerow Crane's-bill	<i>Geranium pyrenaicum</i>
Wildflowers	Herb-Robert	<i>Geranium robertianum</i>

Wildflowers	Wood Avens	<i>Geum urbanum</i>
Wildflowers	Ground-ivy	<i>Glechoma hederacea</i>
Wildflowers	Hogweed	<i>Heracleum sphondylium</i>
Wildflowers	Bluebell	<i>Hyacinthoides non-scripta</i>
Wildflowers	Hybrid Bluebell	<i>Hyacinthoides x massartiana</i>
Wildflowers	Perforate St John's-wort	<i>Hypericum perforatum</i>
Wildflowers	Yellow Iris	<i>Iris pseudacorus</i>
Wildflowers	White Dead-nettle	<i>Lamium album</i>
Wildflowers	Red Dead-nettle	<i>Lamium purpureum</i>
Wildflowers	Rough Hawkbit	<i>Leontodon hispidus</i>
Wildflowers	Oxeye Daisy	<i>Leucanthemum vulgare</i>
Wildflowers	Common Bird's-foot-trefoil	<i>Lotus corniculatus</i>
Wildflowers	Musk-mallow	<i>Malva moschata</i>
Wildflowers	Pineappleweed	<i>Matricaria discoidea</i>
Wildflowers	Welsh Poppy	<i>Meconopsis cambrica</i>
Wildflowers	Water Mint	<i>Mentha aquatica</i>
Wildflowers	Fringed Water-lily	<i>Nymphoides peltata</i>
Wildflowers	Red Bartsia	<i>Odontites vernus</i>
Wildflowers	Green Alkanet	<i>Pentaglottis sempervirens</i>
Wildflowers	Amphibious Bistort	<i>Persicaria amphibia</i>
Wildflowers	Redshank	<i>Persicaria maculosa</i>
Wildflowers	Fox-and-cubs	<i>Pilosella aurantiaca</i>
Wildflowers	Ribwort Plantain	<i>Plantago lanceolata</i>
Wildflowers	Broad-leaved Pondweed	<i>Potamogeton natans</i>
Wildflowers	Silverweed	<i>Potentilla anserina</i>
Wildflowers	Salad Burnet	<i>Poterium sanguisorba subsp. sanguisorba</i>
Wildflowers	Cowslip	<i>Primula veris</i>
Wildflowers	Primrose	<i>Primula vulgaris</i>
Wildflowers	Selfheal	<i>Prunella vulgaris</i>
Wildflowers	Meadow Buttercup	<i>Ranunculus acris</i>
Wildflowers	Creeping Buttercup	<i>Ranunculus repens</i>

Wildflowers	Yellow-rattle	<i>Rhinanthus minor</i>
Wildflowers	Broad-leaved Dock	<i>Rumex obtusifolius</i>
Wildflowers	Hoary Ragwort	<i>Senecio erucifolius</i>
Wildflowers	Common Ragwort	<i>Senecio jacobaea</i>
Wildflowers	Red Campion	<i>Silene dioica</i>
Wildflowers	Ragged-Robin	<i>Silene flos-cuculi</i>
Wildflowers	White Campion	<i>Silene latifolia</i>
Wildflowers	Bittersweet	<i>Solanum dulcamara</i>
Wildflowers	Hedge Woundwort	<i>Stachys sylvatica</i>
Wildflowers	Feverfew	<i>Tanacetum parthenium</i>
Wildflowers	Dandelion agg.	<i>Taraxacum officinale agg.</i>
Wildflowers	Lesser Trefoil	<i>Trifolium dubium</i>
Wildflowers	Red Clover	<i>Trifolium pratense</i>
Wildflowers	White Clover	<i>Trifolium repens</i>
Wildflowers	Colt's-foot	<i>Tussilago farfara</i>
Wildflowers	Common Nettle	<i>Urtica dioica</i>
Wildflowers	Thyme-leaved Speedwell	<i>Veronica serpyllifolia</i>
Wildflowers	Common Vetch	<i>Vicia sativa</i>
Wildflowers	Smooth Tare	<i>Vicia tetrasperma</i>

# Brocks Hill Community Orchard



Community Orchard Trees		
Code	Tree type	Variety
A10 to A17	Apple	Allington Pippin
B7,8	Apple	Allington Pippin
B2 to B6, B9,10	Apple	Brownlees Russet
C 1 to 7	Apple	Annie Elizabeth
D	Apple	?
E	Apple	?
F	Apple	?
G1 to 8	Apple	Dunmellers seedling
H1 to 8	Apple	Barnack Beauty
H10 to 12	Apple	Golden Pippin
I1 to 4	Apple	Annie Elizabeth
I5 to 7	Apple	Golden Pippin
J1 to 3	Apple	Bramleys Seedling
J4 to 6	Apple	Annie Elizabeth
J7 to 8	Apple	Golden Pippin
K1 to 6	Apple	Bramleys Seedling
K7	Apple	Newton Wonder
K8 to 9	Apple	George Cave
L1 to 6	Apple	Newton Wonder
L7	Apple	George Cave
M1 to 2	Apple	Newton Wonder
M4 to 6	Apple	Cox's Pomona
B12 to 13	Cherry	Elton Heart
A21 to 25	Cherry	Elton Heart
O1 to 3	Cherry	Elton Heart
P5 to 7	Cherry	Unknown
B1	Cobnut	Kent Cob
R6 to 9	Damson	Merryweather

S7 to 8	Damson	Merryweather
Q1 to 3	Mulberry	Black Mulberry
T7	Pear	Durondeau
U1	Pear	Clapp's Favourite
U2 to 6	Pear	Durondeau
V1 to 5	Pear	Clapp's Favourite
W1 to 4	Pear	Conference
X1	Pear	Buerre Hardy
X2 to 3	Pear	Conference
Y1 to Y3	Pear	Buerre Hardy
Z1 to 2	Pear	Buerre Hardy
R1 to 5	Plum	Early Rivers
S1 to 6	Plum	Pershire Yellow Egg
T1 to 6	Plum	Cambridge Gage
P1 and P4	Walnut	Walnut