



# Brill Common Management Plan

**Aim:** To summarise the current status and management of Brill Common and produce a five year management plan for the Common, based on the aspirations for the site provided by Brill Parish Council.

Brill Parish Council  
Brill Memorial Hall  
19 Church Street  
Brill  
Bucks  
HP18 9RP

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Prepared by: Ellie Phillips  
Gloucestershire FWAG

Telephone: 01242 503 853  
E-Mail: [ellie.phillips@fwag.org.uk](mailto:ellie.phillips@fwag.org.uk)

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## I Introduction

Brill Parish Council submitted a Higher Level Stewardship (HLS) Application for Brill Common in 2010. Unfortunately the application was unsuccessful; following the 2010 Comprehensive Spending Review, Educational Access options were no longer available for new HLS agreements and the priorities for the maintenance of Biodiversity Action Plan (BAP) habitats became more stringent. Educational Access was deemed to be one of the great strengths of the HLS application for Brill Common and as the grassland of the Common requires much restoration it did not meet the criteria to qualify as a BAP habitat. The position on Educational Access options has since been reviewed and they are now available for new HLS applications; it is possible for the Parish Council to re-apply for HLS in the future and the Farm Environment Plan (FEP), prepared as part of the application, is valid for five years from its submission date. In light of the unsuccessful HLS application, the Common entered an Entry Level Stewardship (ELS) agreement in early 2011. In lieu of the more detailed management prescriptions provided by HLS, the Farming & Wildlife Advisory Group (FWAG) was commissioned to produce a five year management plan for the Common to run the course of this ELS agreement. The Common was surveyed on 25<sup>th</sup> May 2011 by Ellie Phillips, Farm Conservation Adviser, Gloucestershire FWAG.

## 2 Site Overview

### 2.1 Location & Map Coverage

Brill Common forms the north-western and western fringe of the village of Brill, near Aylesbury, Buckinghamshire. The central Ordnance Survey grid reference for the site is SP653143, and the Common is traversed by two roads, Tram Hill and Windmill Street, both of which can be reached via Brill Road, off the B4011. The area covered by Brill Common is mapped at 1:25,000 on OS Explorer Sheet 180 and at 1:50,000 on OS Landranger Sheet 164.

### 2.2 Site Summary

Brill Common is approximately 30 hectares. It consists of several, irregularly-shaped parcels, which are predominantly a mosaic of grazed and rough grassland and scrub, running north-east to south-west along the western edge of the village of Brill. The Common has a small amount of secondary woodland, a permanent pond, several seasonal ponds and several green lanes, road verges and some small areas of amenity-mown grassland.

Much of the site is bounded by roads or has open boundaries; however tall/scrubby hedgerows provide some connectivity, notably along the western edge of the site. The connectivity across the wider landscape is then relatively good, via a mosaic of hedgerows and small copses. Notable sites nearby include Rushbed Woods and Railway Cutting SSSI, approximately 1 km north of Brill Common, and Chinkwell and Boarstall Ancient Replanted Woodlands, approximately 1.2 km north-east and 2.2 km south-west of Brill Common respectively.

The geology of Brill Common is a complex of Portland Limestone, acidic Lower Greensand and Kimmeridge Clay. The complex, undulating topography of the Common reflects its history of industrial activity; the Common was heavily quarried for clay until the end of the 19<sup>th</sup> Century, being returned solely to grazed pasture following the Second World War.

## 2.3 Designations

### 2.3.1 Statutory Designations

Brill Common is Registered Common Land under the Commons Act 1965 (Registration Authority: Buckinghamshire, Common Land Number: CL109). It is also designated as 'Access Land' under the Countryside and Rights of Way (CROW) Act 2000.

### 2.3.2 Non-statutory Designations

Brill Common is designated as a Bucks Site of Importance for Nature Conservation (SINC). The citation (ref 61M01) is for an area of 14.5 ha at SP653143, and notes that the site has 'a superb diversity of habitats perched on a hill of great geological interest...as well as a diverse fauna, it supports a number of plants that are rare in Bucks, namely carline thistle (*Carlina vulgaris*), pyramidal orchid (*Anacamptis pyramidalis*), bee orchid (*Ophrys apifera*) and fine-leaved sandwort (*Minuartia hybrida*)'. Other vascular plants listed are burnet saxifrage (*Pimpinella saxifraga*), harebell (*Campanula rotundifolia*), bird's-foot trefoil (*Lotus corniculatus*), lady's bedstraw (*Galium verum*) with sweet vernal grass (*Anthoxanthum odoratum*), red fescue (*Festuca rubra*) and quaking-grass (*Briza media*). Other interest noted includes at least 68 species of moth, 23 species of butterfly, 60 species of bird, 14 mammals and grass snake (*Natrix natrix*).

## 2.4 Tenure, Management & Land Use

Brill Common is owned, on behalf of the village of Brill, by Brill Parish Council. The Common is currently managed under an ELS agreement, which came into effect on 1<sup>st</sup> May 2011. The options included in the agreement are EK3 (permanent grassland with very low inputs) and EK2 (permanent grassland with low inputs) and the agreement runs until 30<sup>th</sup> April 2016. Any management of the Common should be consistent with the management prescriptions for these options in the ELS handbook (3<sup>rd</sup> edition). Grazing has been progressively reintroduced over the past four years, using approximately ten Dexter's cattle. Progress is being made towards the formation of a 'community herd' to sustain the grazing programme on the Common. In addition to grazing, the primary land use is

informal recreation including walking, picnics, kite-flying, mountain biking and horse riding.

There are two volunteer groups on the Common who undertake practical conservation work. Individuals also carry out species surveillance, for example butterfly transects.

## 2.5 Amenity & Cultural Value

Brill Common has open public access to those on foot under the CROW Act (2000), subject to the restrictions in Schedule 2 of the Act. There are several public footpaths and many more desire lines across the Common. The site is well used by the public; notably by local dog walkers, but other activities include picnics, kite-flying, sledging, bicycle riding and horse riding. The Common provides an important public open space resource for the local community; green space is certainly not in short supply around the village of Brill, however the majority of the surrounding land is farmed. There are several interpretation boards around the Common, and the Parish Council has a small education centre on adjacent, private land.

Brill Common has much cultural and historic value. As Common Land, the open landscape of Brill Common was forged by grazing. Whilst sheep grazing ceased in the late 1990's, rights of pasture are still in existence today under the Commons Act 1965, and grazing has recently been reintroduced with a herd of Dexter's cattle. The undulating topography of the Common is a legacy of many years of clay extraction; clay was used for pottery and brick-making, the latter of which ceased in the 1920s. Milling was also a key industry for the village, and the 17<sup>th</sup> Centaury 'mill-post' windmill, still extant today, is believed to be amongst the oldest and well preserved of its kind in the country. A second windmill was damaged by lightening and subsequently demolished in the early 20<sup>th</sup> Centaury.

## 2.6 Surrounding Land Use

Brill Village itself is immediately east of the Common; as such the eastern fringe of the Common is developed land. The remaining land to the south, west and north is largely farmed pasture interspersed with arable land and with a network of hedgerows and small copses.

## 3 Past Management & Historic Survey Data

### 3.1 Historic Management

Brill Common has been grazed as common land for over 400 years; however heavy quarrying took place up until the end of the 19<sup>th</sup> Century and as such much of the grassland cannot be considered to be ancient pasture.

The quarry holes were used as refuse tips before the Common was returned fully to pasture after the Second World War. Since this time, Brill Common has been grazed with both cattle and sheep, with grazing ceasing in the late 1990s when the last hefted herd of sheep was removed from the Common. After a gap of over ten years, grazing has recently been reintroduced on the Common with a herd Dexter's cattle in 2007. Initially four head of cattle were put on the Common; however this has increased to an average of around eight and up to ten.

Since the cessation of grazing in the late 1990s, the aforementioned volunteer groups have carried out ad-hoc scrub clearance to try to retain the openness of the Common, and they also take hay from certain areas of the Common. The most recent management undertaken by these groups has been scrub clearance, carried out under the direction of a Winter Work Plan produced by Gloucestershire FWAG in late 2010.

### 3.2 Historic Survey Data

A records search was commissioned from Buckinghamshire and Milton Keynes Environmental Records Centre in April 2010 as part of the application process for Higher Level Stewardship. Notable species returned in this search included great crested newt (*Triturus cristatus*), skylark (*Alauda arvensis*), linnet (*Carduelis cannabina*), spotted flycatcher (*Muscicapa striata*), grey partridge (*Perdix perdix*) brown hairstreak (*Thecla betulae*), small skipper (*Thymelicus sylvestris*), Roesel's bush cricket (*Metrioptera roeselii*), fine-leaved sandwort (*Minuartia hybrida*) and yellow vetch (*Vicia leutea*). Great crested newt was recorded in 2003, Roesel's bush cricket in 2007 and skylark and brown hairstreak in 2008; however the remainder of these notable records are from 1995.



In addition to these notable species, the historic records of vascular plants are suggestive of unimproved grassland. Many species, for example harebell (*Campanula rotundifolia*) and stemless thistle (*Cirsium acaule*) recorded in 1995, and quaking-grass (*Briza media*), wild carrot (*Daucus carota*), rough hawkbit (*Leontodon hispidus*) and fairy flax (*Linum catharticum*) recorded in 1986, have recently been either rare or apparently absent from the Common, which indicates a decline in the species richness of the grassland since the cessation of grazing in the late 1990s.

A more recent walkover survey carried out by Ellie Phillips and Jenny Phelps from Gloucestershire FWAG in June 2010 yielded records of only a few indicator species of semi- or unimproved grassland, including glaucous sedge (*Carex flacca*), carline thistle (*Carlina vulgaris*), red fescue (*Festuca rubra*) lady's bedstraw (*Galium verum*), rough hawkbit, (*Leontodon hispidus*), common bird's-foot trefoil (*Lotus corniculatus*), field wood-rush (*Luzula campestris*), mouse-ear hawkweed (*Pilosella officinarum*), salad burnet (*Poterium sanguisorba*), tormentil (*Potentilla erecta*) and yellow oat-grass (*Trisetum flavescens*). Taking into account the flatter, more enriched areas of the Common which would not be expected to support such a flora, these species were at best occasional over the Common.

### 3.3 Past Management Plans

Hyder Consulting Ltd produced a management plan for Brill Common in November 1998. The plan gave detailed costings, notably relating to infrastructure for the reintroduction of grazing. It is understood that the Parish Council met much opposition to these plans and as such the management plan was never implemented fully.

Gloucestershire FWAG produced a winter work plan for 2010/11 to be used by the volunteer work groups. The plan largely recommended selective scrub clearance work and a good deal of the recommendations have been implemented. The outstanding works are incorporated into this plan where relevant; as such this five year management plan supersedes the winter work plan.

## 4 Site Description

The following site description is based upon walk over surveys carried out on 25<sup>th</sup> May 2011. For the purposes of this description, the site is split into discrete parcels, grouping areas of similar flora (or habitat types). Lists of species recorded are provided in Appendix One and the areas described are shown on the management map in Section 8. These were produced during walk-over surveys and should not be interpreted as detailed lists; however areas of grazed grassland were surveyed in more detail with a view to generating base-line data to allow monitoring of these areas. A measure of frequency is given for species indicative of semi- or unimproved grassland in these areas to assist with future monitoring.

### 4.1 Green Lanes

Brill Common has three green lanes which are most likely historic drove roads. One runs south-west from South Hills and two run from Span Green; one in a north-easterly direction ('The Spans') and one in an easterly direction. The three lanes are characterised by a ground flora of typical hedgerow species such as red campion (*Silene dioica*), hedge woundwort (*Stachys sylvatica*), docks (*Rumex* sp.), creeping thistle (*Cirsium arvense*) and white dead nettle (*Lamium album*), although the latter of the three lanes is more grass-rich. No current management is apparent in these areas, other than periodic cutting to maintain the open tracks where necessary.

The former track is a grass track bounded by intermittent hedgerows, predominantly hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*).

The Spans is a farm access track with a low hedge on its northern side, predominantly of hawthorn and blackthorn (*Prunus spinosa*), with semi-mature ash (*Fraxinus excelsior*) and oak (*Quercus* sp.) and some areas grading to scrub. Its southern side is more scrubby, predominantly with ash and oak. There is a wet ditch at the north-eastern end of this lane, on the northern side.

The latter track is a public bridleway with scrub and mature trees, largely ash, hawthorn, blackthorn and willow (*Salix* sp.). There is a wet ditch at the southern end and the bridleway opens out to a surfaced track at its eastern end.

## 4.2 Tall-Ruderal Grassland Adjacent to South Hills (Triangle)

These two, triangular parcels of land amount to approximately 0.1 ha each and are situated either side (east and west) of the triangular, southern section of South Hills. They are characterised by a mid-successional flora including common (stinging) nettle (*Urtica dioica*), bramble (*Rubus* sp.), false oat-grass (*Arrhenatherum elatius*), creeping thistle, hogweed (*Heracleum sphondylium*) and docks. Some 'garden escapes' are present, such as green alkanet (*Pentaglottis sempervirens*) and sulphur cinquefoil (*Potentilla recta*). No current management is apparent on the western parcel. The eastern parcel has been partly strimmed, with the arisings removed, under the winter work plan during winter 2010/11; however the southern part of this parcel would appear to have been mown and managed by a local resident and is correspondingly characterised by a short sward with perennial ryegrass (*Lolium perenne*), clovers (*Trifolium* sp.) and dandelion (*Taraxacum* sp.).

The western parcel has a relatively level plane and is bounded by a residential property on its northern side. An open boundary (a track) forms its eastern side whilst a hedgerow forms its western boundary (a continuation of the green lane described above). Whilst it has more structured scrub than the eastern parcel, including hawthorn, elder and oak saplings, it also has tightly rabbit-grazed areas rich in red fescue (*Festuca rubra*) with lady's bedstraw (*Galium verum*), germander speedwell (*Veronica chamaedrys*) and common sorrel (*Rumex acetosa*). Anthills are also visible in these areas, although there is a heavy thatch in the grass in general. A common lizard (*Lacerta vivipara*) was noted here during the survey.

The eastern parcel adjoins residential properties on its eastern and northern sides and has an open boundary (a track) on its western side. Its southern end grades to a steep slope (approximately 45 degrees) with a north-western aspect.

## 4.3 South Hills (Triangle)

This parcel of land consists of rank grassland (up to 30 cm) with locally dominant bramble and stands of semi-mature to mature ash and hawthorn; the cumulative cover of scrub in this parcel is approaching 30%. The cover of positive herbs is generally much less than 5 %; however localised rabbit grazing gives rise to areas of short sward with red fescue and a positive

herb cover of up to 10%, with lady's bedstraw, common bird's-foot trefoil (*Lotus corniculatus*) and germander speedwell. A single plant of fairy flax (*Linum catharticum*) was also found in such an area. At the southern end, the parcel grades gently to a steeper slope with a north-western aspect; however it has an undulating topography throughout owing to old quarry workings. Field horsetail (*Equisetum arvense*) is rather dominant at the south-eastern end of this parcel. The parcel has open boundaries (tracks) on its eastern and western sides and its southern side grades to a fringe of secondary woodland, predominantly ash, contiguous with the woodland behind it. A noctule (*Nyctalus noctula*) roost has previously been recorded in this adjacent woodland. This parcel was being grazed by Dexter's cattle on the day of the survey.

#### 4.4 South Hills (Windmill)

This area is approximately 2.5 ha and has an undulating topography of old quarries with several steep slopes (70 degrees) with a southerly aspect. It has a tall hedge of elder and hawthorn with dog rose (*Rosa* sp.) on its western boundary; the remaining boundaries being open with tracks or roads. This area has extremely rank grassland in its flatter, southern section, with a sward height of up to 60 cm, dominated by herbs such as cow parsley (*Anthriscus sylvestris*), hogweed, common (stinging) nettle and field horsetail. The northern half of this parcel generally consists of steeper slopes and is subject to greater recreational pressure and compaction; however some rank areas remain, notably at the eastern end, and there is a greater under-thatch than in the southern half in places, particularly lower down on the steeper slopes. The cumulative scrub cover in this parcel is approximately 5 to 10%.

The flora of this parcel is generally characterised by soft brome (*Bromus hordeaceus*), false oat-grass, common cleavers (*Galium aparine*), cow parsley and hogweed with red fescue, lady's bedstraw, common bird's-foot trefoil and wild marjoram (*Origanum vulgare*) occasional in less rank areas. The upper banks of the slopes in this parcel support a more diverse flora with a higher herb percentage, including mouse-ear hawkweed (*Pilosella officinarum*), field wood-rush (*Luzula campestris*), crested hair-grass (*Koeleria macrantha*) and common sorrel. Salad burnet (*Poterium sanguisorba*), common knapweed (*Centaurea nigra*), glaucous sedge (*Carex flacca*) and hawkbit (*Leontodon* sp.) are rare throughout the parcel.

The southern half of this parcel has previously been lightly grazed with Dexter's cattle, whereas the northern half has remained un-grazed since the cessation of grazing in the late 1990s. There is some severe erosion from walkers and mountain bikers on the slopes beneath the windmill and in the northern half of this parcel.

#### 4.5 Hay Cut Areas

There are three areas on Brill Common from which a late hay cut has been taken in recent years. The first is a small (0.1 ha) spur projecting from the north-west corner of the South Hills 'Windmill' area, the second is a similar-sized area directly north of this across Windmill Street, and the third is a slightly larger area (0.3 ha) off the south-eastern end of North Hills. The former two are contiguous with South Hills and North Hills respectively, whereas the latter is an isolated section of North Hills, surrounded by tracks and a road (Windmill Street). All three areas are relatively flat and have no particular aspect.

The first of the three areas is species rich in the context of the rest of the Common, with lady's bedstraw, yellow-rattle (*Rhinanthus minor*), field wood-rush, common bird's-foot trefoil and wild marjoram. The cover of desirable herbs is around 20-25%. The second of the three is characterised by a similar flora; however it is not so species rich, with a positive herb cover, which is dominated by lady's bedstraw, of around 10-15%. The third area is the least botanically interesting at present; its flora is similar to that of the ranker, southern half of the South Hills 'Windmill' area.

#### 4.6 North Hills

North Hills again has a highly undulating topography owing to old quarry workings. Overall, this parcel of about 10 ha is relatively flat; however it grades to a gentle slope with a south-easterly aspect at the western end and to a steeper slopes with a northern aspect at the southern end. The eastern and western boundaries are main roads, Windmill Street and Tram Hill respectively. The southern edge of the parcel is bound by tall scrub and mature trees and rough tracks to residential properties. The northern boundary comprises scrub, mature trees and a tall hedge, predominantly blackthorn, towards the western end, with residential properties and rough tracks towards the eastern end. There are several residential properties self-contained within North Hills. The cover of mature scrub,

predominantly hawthorn, elder and ash with bramble, is cumulatively approaching 25%.

North hills has recently been winter-grazed, the northern half between December 2010 and March 2011 and the southern half between March and May 2011. The southern half has been very well grazed-out; the majority of the sward is around 5cm, although a good few tussocky areas remain, and there is virtually no poaching apparent. The northern half is more rank, with the sward height already reaching 18 cm in places.

A track runs north/south across North hills to Springfield Farm, sectioning off the western-most third of the parcel. This third has the most undulating topography and correspondingly has the most consistent botanical interest, with steep banks supporting mouse-ear hawkweed, crested hair-grass, common bird's-foot trefoil, lady's bedstraw, carline thistle (*Carlina vulgaris*), stemless thistle (*Cirsium acule*), field wood-rush, red fescue and quaking grass (*Briza media*); the cover of positive herbs reaches 50-80% in these localised areas.

The remainder of North Hills is currently of less consistent interest, largely owing to its flatter nature; however some steeper banks retain a more diverse flora, notably field wood-rush, sheep's sorrel (*Rumex acetosella*), mouse-ear hawkweed, lady's bedstraw and red fescue. A few plants of milkwort (*Polygala* sp.) were also found at a single location.

Away from these steeper banks, the sward of North Hills is dominated by cock's-foot (*Dactylis glomerata*), with creeping buttercup (*Ranunculus repens*), creeping thistle and field horsetail; the latter two being rather dominant, notably towards the north-western end of the parcel. Some positive indicator species such as lady's bedstraw and common bird's-foot trefoil are occasional throughout the parcel.

There is a damp flush in the grassland towards the very western edge of the parcel, with rosebay willowherb (*Chamerion angustifolium*) and an unknown, variegated cultivar of a *Holcus*. There is also a boggy area just north-west of this flush, with fool's water-cress (*Apium nodiflorum*), water mint (*Mentha aquatica*) and brooklime (*Veronica beccabunga*); however this area is currently scrubbed-over, largely with hawthorn.

There is some encroachment onto the Common from adjacent residential properties. There is also some erosion from walkers and mountain bikes

on the steeper banks, notably in the very southern part of this parcel, south of the track to Springfield Farm.

#### 4.7 Secondary Woodland off Tram Hill

This woodland is a thin strip (approximately 0.5 ha) running adjacent to Tram Hill, with Tram Hill forming the western boundary of the site and sheep-grazed pasture at the eastern side. The canopy is predominantly mature and semi mature ash and oak with crack willow (*Salix fragilis*), sycamore (*Acer pseudoplatanus*) and field maple (*Acer campestre*). The woodland grades to scrub at the southern end, including hawthorn, hazel (*Corylus avellana*) and sallow (*Salix* sp.). Whilst some areas are dominated with tall-ruderal species such as common cleavers, a promising woodland flora indicative of ecological continuity can be found in others, including moschatel (*Adoxa moschatellina*), wood sedge (*Carex sylvatica*), dog's mercury (*Mercurialis perennis*) and three-nerved sandwort (*Moehringia trinervia*).

There are four ponds in the woodland. The three most southern ponds appear to be temporary pools and were dry on the day of the survey with no aquatic vegetation apparent. The most northern pond is larger (at least 50 m<sup>2</sup>) and would appear to hold water throughout the year. The pond is an irregular shape with sheltered, scalloped bays and is currently in roughly 75% shade. Two, mature crack willows are at the edge of the pond and there is some soft rush (*Juncus effusus*); however there is little other aquatic, emergent or marginal vegetation in and around the pond. The pond appeared to be rather eutrophic and it is possible that it is fed by run-off from the road. Great crested newts (*Triturus cristatus*) have been recorded within 500 m of the site in 'The Walks' (immediately south of North Hills) and whilst a main road between North Hills and this area is rather unsympathetic for dispersal, the newts are believed to have been present in this pond. The lack of vegetation prohibited an egg-search to confirm the breeding status of newts in the pond.

#### 4.8 Rough grassland adjacent to North Hills

There are four areas of rougher grassland adjacent to North Hills; one at the south-western corner of the Hills and three running along Tram Hill, with one parcel east of the road, one parcel west of the road and the final parcel at the northern end of Tram Hill, known as 'North Triangle'. Each

parcel is around 0.5 ha in size and has a relatively level plane. The grassland, characterised by false oat-grass, cock's-foot and rough meadow-grass (*Poa trivialis*) with field horsetail, common (stinging) nettle, creeping thistle, hogweed and cow parsley, is interspersed with scrub. North Triangle has a large, very dense stand of scrub at its centre, including mature hawthorn and ash and semi-mature ash. It also has the least species-rich grassland of the four with dominant stands of rosebay willowherb, bristly ox-tongue (*Picris echioides*) and common (stinging) nettle. A haycut was taken from the grassland north of the scrub in 2010; however little other management is apparent. The other three areas have been grazed previously to some extent; the remaining two northern parcels have been lightly grazed with Dexter's once or twice since 2010 and the southern parcel has been lightly horse-grazed, although much less recently. Lady's bedstraw, common bird's-foot trefoil and oxeye daisy (*Leucanthemum vulgare*) are present at low frequencies in these grazed areas; however the southern parcel is much ranker; lady's bedstraw is restricted to the edges of the grassland and common bird's-foot trefoil was not recorded. Where not bounded by roads, these areas have scrubby fringes. The southern parcel has some secondary woodland at its south-eastern end, comprising predominantly of sycamore with some hawthorn, sallow and elder. The ground flora is rather nettle-rich but jack-by-the-hedge (*Alliaria petiolata*) and ground ivy (*Glechoma hederacea*) are present and moschatel has been recorded by residents in the past.

#### 4.9 Span Green

Span green is a triangular area of rough grassland and is just under 2 ha in size. It has a more-or-less level plane and is bounded by tall, scrubby hedges which are continuous with the green lanes which adjoin it ('The Spans' at the northern end and a public bridleway at the south-eastern end). Bramble is locally dominant and there is encroachment by young hawthorn, blackthorn and oak; however some open rides remain in between and some areas open out to grassland. The grassland is rather rank in nature, with a sward height of up to 30 cm, characterised by grasses such as cock's-foot, tufted hair-grass (*Deschampsia cespitosa*), false oat-grass and meadow fox-tail (*Alopecurus pratensis*). Herbs include docks, hogweed, common (stinging) nettle, common cleavers, mugwort (*Artemisia vulgaris*) and great willowherb (*Epilobium hirsutum*); however there are a few, occasional positive indicators such as lady's bedstraw and common



knapweed. In addition to tufted hair-grass, meadowsweet (*Filipendula ulmaria*) and hard rush (*Juncus inflexus*) indicate a high water-table.

#### 4.10 Pheasant Triangle

This is a very small, triangular area (about 10 m in length), bounded by roads on all sides, which has been historically seeded with a conservation mix. Species recorded include common bird's-foot trefoil, oxeye daisy, common knapweed, yellow rattle and red fescue, with hedge bedstraw (*Galium mollugo*), cock's-foot, perennial rye-grass, clovers (*Trifolium* spp.) and dandelion.

#### 4.11 Roadside Verges

There are three road verges included in the registered common land of Brill Common. One projects north-east from the northern end of Tram Hill, and two project from the northern end of Windmill Street; one projecting south-west and one projecting north-west. The former two are just over 600 m each, whereas the latter stretches for about 1 km. The verges consist of grass margins, although there is more of a consistent, wide margin in the verge projecting from Tram Hill. The flora of these verges is characterised by cock's-foot, false oat-grass and meadow fox-tail with red campion, silverweed, common (stinging) nettle and hogweed. The verge off Tram Hill has a managed hedge of predominantly blackthorn with some dog-rose and elder and mature oak standards. The hedges of the two, more southern verges are more tall and scrubby in places, consisting predominantly of hawthorn and elder with mature ash, sycamore and oak standards.

#### 4.12 Amenity-Mown Areas

There are four parcels of common land at the junction of Church Street and Oakley Road, about 500 m south-east of the main area of the Common. These parcels form a linear strip of about 150 m, with a triangular piece of land at the northern end with a war memorial and flower bed. These areas are mown as amenity verges and were not surveyed in detail.

## 5 Statutory & Non-Statutory Considerations

The following legislation and policy should be taken into account when managing the Common. This is not an exhaustive list of the legislation which has relevance to Brill Common; it merely highlights the main considerations required based upon the designations listed in Section 2.3 and based upon the species and habitats recorded in Section 4.

### 5.1 Statutory Considerations

- **The Commons (Registration) Act 1965** – The registration documents held by Buckinghamshire County Council document those with a legal right to exercise a right of pasture, as prescribed in these documents.
- **The Commons Act 2006** – The Act makes provision for the management of commons through Commons Councils and also strengthens protection for common land. Section 38 details ‘restricted works’ for which Secretary of State Consent is required. These works include those which prevent or impede access, such as fencing, and resurfacing and the construction of buildings. Note that Exemption Order SI 2587/2007 defines a number of activities for which ‘Section 38 consent’ is not required. This includes temporary fencing (which may be electric) for the purposes of restricting the movement of grazing animals or for the purposes of facilitating growth of vegetation. There are provisos to these exceptions; refer to the Exemption Order for full details.
- **The Countryside and Rights of Way Act (CROW) 2000** – This Act strengthened protection for SSSI’s and for Protected Species; however of particular relevance here, Section 2 entitles entry to ‘Access Land’ for the purposes of open-air recreation provided that no fences, gates, walls, hedges or stiles are broken in the process. This entry is subject to the restrictions listed in Schedule 2 of the Act. These restrictions indicate that ‘the right to roam’ is restricted to those on foot, and prevent damage and disturbance to wildlife on the land. They also indicate that dogs should be kept on a lead at certain times of year and around livestock.

- **The Hedgerow Regulations (1997)** – Important hedgerows, as defined in the Regulations, are protected from removal or destruction without the prior consent of the Local Planning Authority.
- **The Wildlife & Countryside Act (1981) (As amended) and The Conservation of Habitats and Species Regulations (2010)** – Schedule 5 and Schedule 2 of these Acts respectively list great crested newt (*Triturus cristatus*) as protected species. The inclusion on the latter elevates this status to ‘European Protected Species’. In summary, taken together these Acts make it an offence to:
  - Intentionally or deliberately capture, kill or injure a great crested newt;
  - Deliberately disturb or intentionally/recklessly disturb a great crested newt when in its place of shelter/protection;
  - Deliberately take or destroy great crested newt eggs;
  - Damage or destroy a breeding site or resting place;
  - Intentionally/recklessly damage, destroy or obstruct access to a place of shelter/protection;
  - Possess (any part of) a great crested newt; and
  - Sell/barter/exchange/offer for sale or transport (any part of) a great crested newt.

A licence from the relevant Statutory Nature Conservation Organisation (i.e. Natural England) is required to carry out any activity which would otherwise be an offence.

Note that other species likely to be found on the Common, particularly **reptiles** and **amphibians**, receive some degree of legal protection through the Wildlife & Countryside Act. All **nesting birds** are also protected under this Act.

- **The Natural Environment and Rural Communities (NERC) Act (2006)** - Section 40 of the Act states that ‘every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity’. Lists of ‘Section 41’ species and habitats are published, which, in the Secretary of State’s opinion, are of principal importance for the purpose of conserving biodiversity.
- **Cross Compliance** - Cross compliance applies to all Environmental Stewardship agreements entered into on or after 1<sup>st</sup> January 2007. This means that Brill Parish Council will have to be able to demonstrate that they are keeping the Common in Good Agricultural

and Environmental Condition (GAEC) and complying with a number of specified legal requirements known as Statutory Management Requirements (SMR's). Note that Brill Common falls within a Nitrate Vulnerable Zone (NVZ) and as such there are additional record-keeping requirements under cross-compliance rules.

## 5.2 Non-Statutory Considerations

- **Local Sites** – Brill Common is a Site of Importance for Nature Conservation (SINC). As such, Planning Policy Statement 9 (PPS9) states that it has 'a fundamental role to play in meeting overall national biodiversity targets', and stipulates that 'criteria-based policies should be established in local development documents against which proposals for any development on, or affecting, such sites will be judged'. Correspondingly, policy NRM5 of the South East Plan states that 'Local planning authorities and other bodies shall avoid a net loss of biodiversity, and actively pursue opportunities to achieve a net gain across the region' and that 'they shall ...seek to ensure that damage to county wildlife sites...is avoided'. Policy NRM5 reiterates the relevant policies in the Aylesbury Vale District Plan, which were 'not saved' by a Direction from the Secretary of State after September 2007.
- **The UK Biodiversity Action Plan (BAP)** – The UK BAP is the Government's response to the Convention on Biological Diversity (Rio de Janeiro, 1992). Priority Species and Priority Habitats under the BAP are largely consistent with the 'Section 41' lists above; whilst there may not necessarily be a direct legal obligation towards UK BAP species or habitats occurring on Brill Common, a 'regard' for them is strongly implied through the NERC Act.
- **The Buckinghamshire and Milton Keynes Biodiversity Action Plan (BAP)** – This Local BAP (LBAP) describes how the wildlife of Buckinghamshire and Milton Keynes is going to be enhanced and protected over a ten year period. Each Local Biodiversity Action Plan works on the basis of partnership to identify local priorities and to determine the contribution they can make to the delivery of the national Species and Habitat Action Plan targets.

## 6 Management Aims

Brill Parish Council agreed the aims for Brill Common, to be worked towards through the implementation of a five year management plan, in March 2011. The Council's aims were as follows:

### 6.1 Wildlife

- A. **Grassland** - Increase the species diversity and frequency of positive indicator species in the grassland on the Common.
- B. **Great crested newt** – Ascertain the population size/breeding status of great crested newts and monitor each year. Maintain or enhance the connectivity on site for newts and over-wintering habitat as necessary. Address the quality of existing ponds.
- C. **Butterflies** - Habitat management for brown hairstreak and aim to attract more butterfly species and increase the abundance of species currently recorded.
- D. **Birds** - General habitat enhancement to increase the potential for birds.
- E. **Invasive species** – Eradicate Himalayan balsam and manage other invasive species such as ragwort, creeping thistle, ash saplings and docks, appropriately.
- F. **Grazing** - Continuation of historic practices and maintenance of a conservation grazing regime. Development of infrastructure such as stock watering facilities.

### 6.2 Landscape and heritage

- A. **Openness** - Reduce scrub and rank, tall ruderal areas to return the Common to open grassland.
- B. **Views** - Selectively reduce tree cover to restore views over the vale.
- C. **The windmill** – Address problems of erosion around the windmill.
- D. **Traditional practices** - Hedge laying at the Oakley end of Span Green, haymaking.

### 6.3 Access and community involvement

- A. **Volunteers** – Provide work for village volunteer groups and seek new volunteers through partner organisations.
- B. **Recreation** – Maintain access for residents and visitors to enjoy the Common.

## 7 Management Plan

The following management plan gives objectives which are targeted to work towards the aims identified in Section 6. Objectives are described for each area of the Common, consistent with the areas described in Section 4.

Each objective is assigned a management code, shown in bold type, which can be cross-referenced with the annual work plan provided in Section 9. Management codes are displayed on a map in Section 8.

### 7.1 Green Lanes

The green lanes provide connectivity across the landscape and are likely to be used as navigational features and foraging areas for bats. The sheltered, rougher grassland is likely to be of value for invertebrates, including butterflies, and the scrub-grassland interface will also have value for invertebrates, as well as providing basking opportunities for reptiles. The green lanes have cultural value as they are most likely to be historic drove roads leading to Brill Common.

- **GL1: Strim or top the grassland in these lanes to maintain wide rides and open access for pedestrians and horse riders, as appropriate.** Ideally, collect the arisings; these could be piled up in a suitably undisturbed and species-poor area along the green lanes to provide habitat for reptiles, particularly grass snake and slow worm (*Anguis fragilis*).
- **GL2: Maintain tall hedges and scrubby edges, gapping-up hedgerows where necessary and as funding permits.** Plant up with native, locally relevant species, taking care to avoid cultivars of native species. Lay the more managed hedges where appropriate under the instruction of a suitably experienced person.
- **GL3: There is some snowberry (*Symphoricarpos* sp.) growing towards the northern end of the green lane which runs to South Hills (Triangle). In this context it is not doing much harm; however snowberry can become rather invasive and it is recommended that its cover is monitored and that the shrub is removed if noted to be spreading significantly.**

## 7.2 Tall Ruderal Grassland Adjacent to South Hills (Triangle)

The eastern of the two triangular pieces of ground adjacent to South Hills (Triangle) is a more suitable candidate to return to grassland than the western of the two, since it currently has the poorest structural diversity; the western parcel currently has a better range of scrub and rabbit grazing has retained open areas, giving at least some localised mosaics, with scrub grading to tightly-grazed areas. The eastern parcel is much more uniform in structure and lacks these 'edge' habitats.

Work has already begun to clear the eastern parcel under the winter work plan of 2010/2011 and a large proportion has been cut and the arisings removed. Work should continue to follow the original plan here, cutting two thirds of the parcel each winter and retaining a scalloped edge of about one third on a rotation to provide over-wintering habitat for invertebrates and seed heads for birds. This will keep the area from scrubbing over so that it can eventually be incorporated into the grazing plan, once the cattle have got on top of the existing grazed areas. The western parcel should be managed as a mid-successional habitat to provide this over-wintering resource for birds and invertebrates and to maintain basking areas with adjacent cover for reptiles.

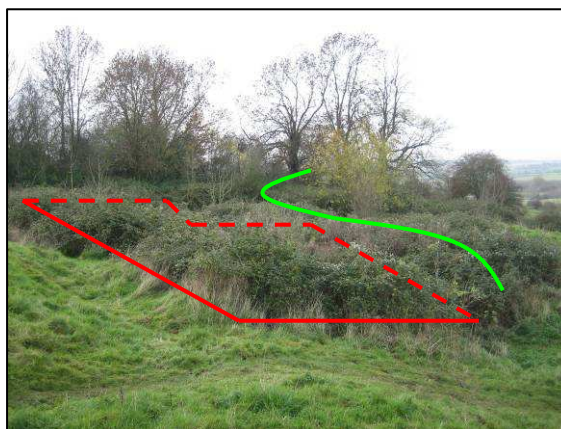
- TR1: Cut two thirds of the tall ruderal vegetation, leaving behind a scalloped edge of about a third to remain through the winter on a rotation. Cut after August and remove all cuttings.
- TR2: Cut approximately one fifth of the tall-ruderal vegetation down to less than 7 cm on a rotation each winter (after October). Cut irregularly-shaped, scalloped edges rather than squares, and avoid cutting immediately adjacent areas in successive years. Remove all cuttings.

## 7.3 South Hills (Triangle)

Whilst the grassland in this area is rather rank, some positive indicator species are present. Although the diversity of indicator species is currently poor, their occurrence, notably lady's bedstraw and bird's-foot trefoil, is occasional throughout the grassland. The presence of fairy flax, which has not been recorded recently on the site, is particularly encouraging. It is recommended to continue to graze this area, as per the grazing plan. At around 30%, the

cover of scrub on the area is rather high, and the cover of field horsetail, notably in the south-eastern corner of the parcel, is also of concern. The existing scrub largely comprises bramble; whilst bramble is an important late-nectar and food source and hence should not be eradicated entirely, the scrub in this parcel rather lacks structural and species diversity; thus other species (for example hawthorn) should be encouraged within those stands of scrub which are retained.

- **ST1: Graze this area, as per the grazing plan.**
- **ST2:** Continue the work that has commenced under the winter work plan 2010/11 to clear the bramble on the ridge at SP65101391. Clear the bramble from the eastern, south-west facing bank (outlined in red below). The bramble can be cleared to the base of the ditch. The bramble on the opposite, north-east facing bank (outlined in green below) can be left to maintain a link with the woodland edge. The end result aims to provide a sunny, south-west facing grass bank, with a 'question-mark' shaped bramble link to the woodland edge to the south. The question-mark shape maximises the 'edge' habitat of the bramble, providing several aspects and sheltered areas to give a range of micro-climates. At the peak of the bank, the bramble will have a sunny, south-west facing edge; this will be a natural edge rather than the sharp edge which is inevitably created by cutting.
  - **Clear the bramble from the eastern, south-west facing bank, taking it right back to the woodland edge.**
  - **Retain the bramble in a 'question-mark' shape on the opposite, north-east facing bank, maintaining the link with the woodland edge.**
  - **Remove all cuttings**



**Bramble to be cleared** photographed looking south. The bramble to be removed is boxed in red. The bramble to retain is shown by the green 'question-mark'.



- **ST3:** Remove the bramble and young ash growing in the hollow at SP65111393 to prevent further encroachment onto the banks just north, where lady's bedstraw is present.
  - Clear the bramble and young ash from the hollow, clearing right up to the top of the bank either side, as seen in the photograph below.
  - Remove all cuttings



Bramble and young ash to be cleared,  
photographed looking south.

- **ST4:** Judging by the species present on other steep banks in this parcel, the east-facing quarry hollows at SP65061395 and SP65081394 have potential for restoration to more interesting grassland. In each of these hollows, clear the nettles, thistles, hogweed etc and any bramble present. Also clear the 'overspill' of these rough grassland species in between the hollows, but retain the two mature hawthorns and retain some bramble at the top of the hollows. The hawthorn and bramble will provide food sources for invertebrates and birds.
  - Clear the 'rough grassland' species from and around the hollows
  - Remove all cuttings
  - Retain the hawthorn and some bramble at the top of the hollows.



**Old quarry hollows to be cleared**, photographed looking north (left) and south (right). The left-hand photograph shows the extent of cover of 'rough grassland' species, including creeping thistle, nettle, hogweed and cow parsley. Some red campion is also present; this again is more of a shade-tolerant, hedge/woodland species than a grassland species.

- **ST5:** Ash saplings are fairly frequent towards the southern end of this parcel. Without management, these areas will succeed to secondary woodland. As the parcel is bounded by secondary woodland at its southern end (i.e. the resource is already present) and the aim here is restoration of grassland, it is recommended that all of these young ash trees are removed. There is mature ash further north in this parcel, which adds structure and should be allowed to remain.
  - Remove all the young ash in the southern part of this parcel. Where stumps are large enough, treat with Glycophosphate ('Roundup').
  - Remove the timber, although a little could be used to construct one or two log piles on the fringes of existing scrub if desired.



**Young ash to be cleared at the southern end of the parcel**, photographed looking south.

Management codes ST2 to ST5 will open out more grazing areas and thoroughfares for stock, which will reinforce the clearance work.

- **ST6:** Tipping of garden waste has previously been identified as a problem in the old quarry hollow at SP65141395. Removal of the nettles on the south-west facing bank (pictured left, below) to encourage grass growth might discourage this tipping. To encourage stock to move into and graze this area to reinforce the clearance work, it is suggested that the eastern end of the bramble above these nettles and adjacent to the lane (pictured upper left, below) is cut back, wide enough to create a thoroughfare.
  - **Clear nettles on the south-west facing bank**
  - **Cut back the eastern end of the bramble, adjacent to the lane**
  - **Retain the remainder of the scrub, including the ash**
  - **Remove all cuttings**



Nettles and bramble to be removed in the old quarry hollow, photographed looking south. The area to be cleared is shown on the left-hand side of this photograph.

- **ST7:** Although it was not recorded during this survey, Indian (or Himalayan) balsam (*Impatiens glandulifera*) has been noted in this parcel during previous surveys and volunteers have been working to eradicate the plant.
  - **Pull Indian balsam out by hand before July, when seeds will begin to be produced.**
  - **Carefully remove all material pulled.**

## 7.4 South Hills (Windmill)

The cover of scrub in this parcel is at a desirable level at around 5 to 10%. Much of this parcel is very rank, and the cover of hogweed and cow parsley is of concern. Positive indicator species are present at low frequencies, however, including lady's bedstraw, common bird's-foot trefoil, wild marjoram, mouse-ear hawkweed, field wood-rush, crested hair-grass, salad burnet, common knapweed, glaucous sedge and hawkbit (*Leontodon* sp.). The presence of these species is encouraging, and it is recommended to continue to graze this area, introducing grazing to the northern part of the parcel if at all possible.

- **SW1:** Graze this area, as per the grazing plan.
- **SW2:** There is some quite severe erosion around the slopes under the windmill, and also on the slopes in the northern part of this parcel, which have comparatively high botanical interest relative to other areas in the parcel. A little bare ground is good for wildlife; however these eroded areas, which would appear to be caused by walkers and cyclists, could be consolidated to reduce the damage.
  - Liaise with Buckinghamshire County Council regarding the erosion around the windmill
  - Repair the eroded areas using locally relevant stone (Bucks Earth Heritage Group may be able to provide advice – see [www.bucksgeology.org.uk](http://www.bucksgeology.org.uk)). NOTE that the Commons Act (2006) names resurfacing as one of several 'restricted works' requiring Secretary of State Consent, but not if the work consists only of the repair of an existing surface of the land made of such material. See Section 5.1.
  - Encourage walkers and cyclists to stick to a couple of tracks, rather than using several within close proximity to one another.





**Erosion on the South Hills (Windmill) area**, to show the damage underneath the windmill (left) and on the slopes in the northern part of this parcel (right).

## 7.5 Hay Cut Areas

The three areas taken for hay on the Common provide feed for the cattle in winter (where the quality is sufficient) and also represent some continuity of management, whilst the remainder of the Common has been subject to rather disjointed management over the years, with grazing having been lost from the Common in the late 1990's and then reintroduced about four years ago. One of these areas is relatively species rich in the context of the remainder of the Common and it is recommended that this consistent management is maintained. In the most rank, species poor area of the three (the isolated section of North Hills, surrounded by tracks and Windmill Street), two cuts can be taken; an early cut aims to 'knock back' the early growth of grasses and tall-ruderal species to give the desirable herbs room to flower and seed.

- **HCI:** Continue to take hay from the three hay cut areas.
  - Take a hay cut, removing the arisings, from mid-July depending on how advanced the season is.
- **HC2:** Take two cuts from the isolated section of North Hills
  - Take an early cut if necessary, removing the arisings, in March (before 1<sup>st</sup> April), depending on the growth of that season.
  - Take a hay cut, removing the arisings, from mid-July depending on how advanced the season is.

## 7.6 North Hills

This parcel has localised botanical interest, although there are flatter, more enriched areas dominated by cock's-foot and nettle, creeping thistle and field

horsetail are also an issue. Although the frequency of positive indicators is a little sparse, some are more occasional, such as lady's bedstraw and common bird's-foot trefoil. The presence of milkwort towards the eastern end of North Hills is encouraging, as this has not been recorded recently on the site. It is recommended to continue to graze this area.

The scrub in this parcel is predominantly hawthorn, elder and ash with bramble, and is cumulatively approaching 25%. Whilst scrub has value for nesting birds, invertebrates and reptiles (notably the 'edge' habitat for the latter two), and provides over-wintering opportunities for amphibians, its cover is a little high in this parcel and the scrub present lacks age and structural diversity. A longer-term target might be to reduce the cover of scrub to 15%, introducing rotational coppicing to manage the age and structure of the remaining stands.

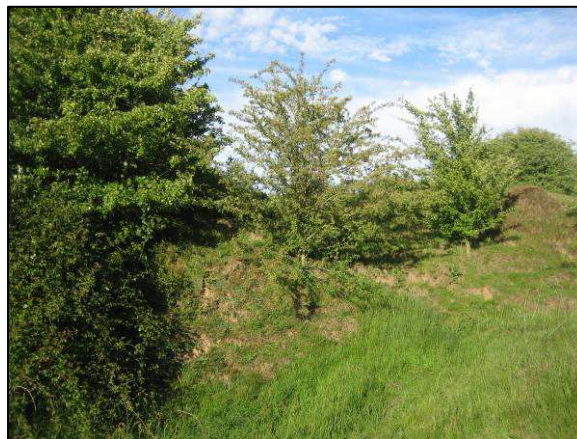
In many areas on North Hills, the scrub has formed a closed canopy there is no grassland flora apparent underneath. Rapidly eradicating scrub in these areas is likely to encourage invasive species such as creeping thistle, nettles and docks and it is unlikely that very species rich grassland will recover in the long-run. The approach in these areas should thus be to reduce the cover of scrub slowly, opening out the area to stop pockets of grassland becoming isolated further so that stock are not willing or able to enter and graze, and introducing a rotational cutting regime to actively manage the remaining scrub once the desired cover is achieved. There are some key, priority areas where younger scrub is encroaching onto areas of botanical interest; young scrub should be eradicated from these areas.

- **NH1: Graze this area, as per the grazing plan.**
- **NH2:** The area south of the track to Springfield Farm has the most consistent botanical interest on North Hills. There is consistent encroachment of young scrub, notably hawthorn and bramble, throughout this area.
  - Remove all of the young scrub from the sward, particularly from the steeper banks
  - Remove the cuttings
  - Retain the mature stands of scrub (with a view to introducing age and structural diversity in the longer term), but where bramble surrounds these stands, cut its perimeter back by 1/3 of its total cover, introducing scalloped edges, to prevent further encroachment onto grassland.



Young scrub encroachment on the area south of the track to Springfield Farm. This area is a high priority for clearance of such young, encroaching scrub.

- **NH3:** The steep bank at SP65381442 would appear to have potential for species-richness, with species such as common and sheep's sorrel, mouse-ear hawkweed and field wood-rush present. Young hawthorn and bramble are encroaching on this bank.
  - **Remove all of the hawthorn and bramble from this bank**
  - **Remove the cuttings**



**Bank at SP65381442**, photographed looking north, to show the encroaching hawthorn and bramble which should be removed.

- **NH4:** The area at SP65531457 has been cleared of bramble under the 2010/11 winter work plan. This will need to be re-cut to 'knock back' the invasive species (notably creeping thistle and field horsetail) to allow a grassland sward to develop.
  - **Mow or strim the area previously cleared**

- Remove the cuttings



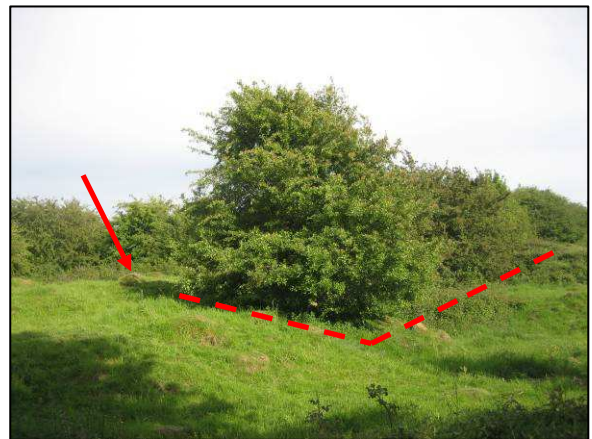
**Area at SP65531457**, photographed looking east, to show the invasive species such as creeping thistle. This area should be re-cut to allow a grassland sward to develop.

- **NH5:** The scrub at the north-eastern end of North Hills, adjacent to Tram Hill, is shielding the views over the Aylesbury Vale and is encroaching on some pockets of grassland of moderate interest in the context of the remainder of the Common, which have lady's bedstraw, field wood-rush and anthills present. The scrub itself is dense in places and there is little or no grassland sward underneath; hence clearing it entirely is unlikely to result in the restoration of species-rich grassland. Willow warbler (*Phylloscopus trochilus*) was also noted utilising the scrub on the day of the survey. The aim is thus to restore views over the vale and protect the adjacent grassland by reducing the cover of scrub by about one half, introducing scalloped edges to give varying aspects and microclimates. The remaining scrub, which is to be retained as a continuous belt, will be managed for age and structural diversity in the longer term; this will reduce its height to further restore views over the Vale. Root nodules and rabbit holes under the cover of this scrub will provide over-wintering habitat for amphibians, and the continuous belt will provide a corridor of rougher habitat for amphibians dispersing between the pond in 'The Walks' and the other ponds on site.
  - **NH5i:** Clear the northern of the two blocks of scrub (predominantly hawthorn, bramble, elder, with bramble and rosebay willowherb) marked on the management map as solid red blocks and as shown in the photographs below. Paint the

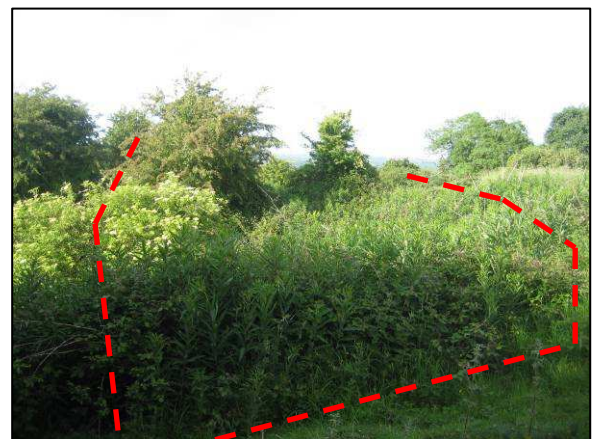
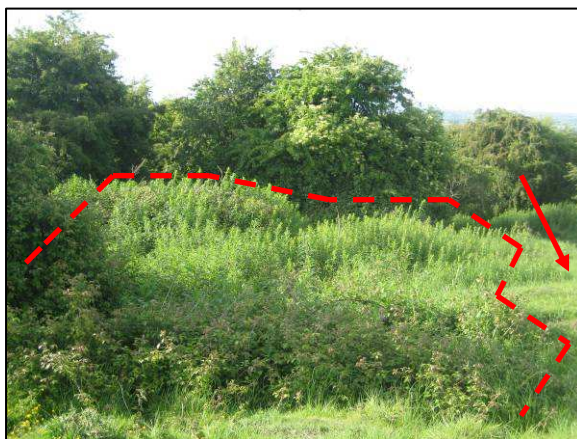


stumps of removed scrub with glycophosphate ('Roundup') and remove all cuttings.

- NH5ii: Clear the southern of the two blocks of scrub (predominantly hawthorn, bramble, elder, with bramble and rosebay willowherb) marked on the management map as solid red blocks and as shown in the photographs below. Paint the stumps of removed scrub with glycophosphate ('Roundup') and remove all cuttings.



The northern end of the northern-most block of scrub to be cleared, with a pocket of grassland with lady's bedstraw at SP65511449, photographed looking south (left) and south-east (right). The pocket of grassland to be protected is highlighted with the red arrow in each photograph, whilst the scrub to be cleared is dashed in red. The area to be cleared extends as far south as the deep hollow at SP65551447 and loops in a semi-circle eastwards with the eastern-most point of this loop reaching the boggy area at SP65551451.



The northern end of the southern-most block of scrub to be cleared at SP65571450 (left) and the southern end of this block at SP65541445 (right), both photographed looking north. The pocket of grassland to be protected is highlighted with the red arrow on the left-hand photograph, and the scrub to be cleared is dashed in red in both photographs. The area to be cleared extends as far south as the point where a footpath/desire line transects the scrub (the mature stand of scrub south of this footpath is to be retained), and loops in a semi-circle westwards with the western-most point of this loop reaching approximately half way across the width of the scrub.

- **NH6:** The scrub along the northern boundary of North Hills, just south of Springfield Cottage, is again shielding the views over the Aylesbury Vale. Similar to above, the chance of re-gaining a diverse ground flora underneath the scrub itself is minimal; the aim here is thus to reduce the 'sprawl' between the core stands of mature scrub, and then to reduce the cover of each of these stands by one quarter with a view to opening out stock thoroughfares. The remaining scrub, which is to be retained as discrete stands, will be managed for age and structural diversity in the longer term; this will reduce its height to further restore views over the Vale.
  - **NH6i:** Clear all of the bramble, young scrub and creeping thistle in between the core stands of mature scrub. Remove all cuttings
  - **NH6ii:** In each block of mature scrub, remove one quarter of the scrub (i.e. one in four hawthorn or ash trees). Paint the stumps of removed scrub with glyphosphate ('Roundup') and remove all cuttings. Choose the scrub to be removed so as to maximise the potential for stock thoroughfares through the area. NB Brown hairstreak (*Thecla betulae*) may assemble around the tops of mature ash trees; thus do not remove all of the ash trees from this area - retain one or two.



The scrub along the northern boundary of North Hills (south of Springfield Cottage), photographed from the western end. The photograph looks east into the scrub to show the extent of bramble and young scrub to be removed between the mature stands of scrub.

- **NH7:** The blackthorn hedge at the western end of the northern boundary of North Hills is currently being managed for brown hairstreak by coppicing one tenth of the hedge on a ten year rotation.
  - Continue to coppice one tenth of the hedgerow each year on a ten year rotation. Remove all cuttings and avoid coppicing immediately adjacent areas in successive years.
  
- **NH8:** There is some erosion on banks and mounds in the western-most area of North Hills, which have comparatively high botanical interest relative to other areas in the parcel. A little bare ground is good for wildlife; however these eroded areas, which would appear to be caused by walkers and cyclists, could be consolidated to reduce the damage.
  - Repair the majority of the eroded areas using locally relevant stone (Bucks Earth Heritage Group may be able to provide advice – see [www.bucksgeology.org.uk](http://www.bucksgeology.org.uk)). NOTE that the Commons Act (2006) names resurfacing as one of several ‘restricted works’ requiring Secretary of State Consent, but not if the work consists only of the repair of an existing surface of the land made of such material. See Section 5.1.
  - Encourage walkers and cyclists to stick to a couple of tracks, rather than using several within close proximity to one another.



Erosion on the banks and mounds at the western end of North Hills.

- **NH9:** The roadside verge at SP65061430, at the south-western corner of North Hills adjacent to Windmill Street, is of botanical interest, supporting oxeye daisy, carline thistle, common bird's-foot trefoil, lady's bedstraw, field wood-rush and mouse-ear hawkweed with a positive herb cover of up to 50%. Encroachment of hawthorn and field horsetail are of concern here.
  - Remove all saplings and field horsetail from this bank. Cut from August and remove all cuttings.
  - Also cut the grass on this bank, from year 1 and in each subsequent year. Cut after August, removing the arisings, to reduce the vigour of grasses and saplings relative to the herbs.

## 7.7 Secondary Woodland off Tram Hill

This woodland is quite rich in scrub, notably towards its southern end. This is likely to require management at some point to allow it to develop into good-quality woodland with a diverse age, height and species structure; however given the level of work needed on the grassland areas of the Common, and given the relatively slow rate of development of woodland, this management is not deemed to be a priority in this five year period. Shaded ponds are a valuable habitat in their own right; however some work can be carried out to allow a little more light into the largest, northern pond. Temporary pools are also a valuable habitat, notably for amphibians since fish will not be found in these pools.

- **WT1:** Open up the southern side of the largest, northern pond to allow more light into the pond, reducing the extent of the perimeter in shade to about 20 to 30%. Retain the crack willow trees on the very edge of the pond, as these can provide nooks and crannies for over-wintering amphibians.
  - Remove 3 or 4 of the semi-mature ash trees on the south western side of the pond. Paint the stumps of removed trees with glyphosphate ('Roundup'). Remove the cuttings, although a log pile could be constructed next to the pond.





The most northern, permanent pond in the woodland off Tram Hill, photographed looking north. The area to clear 3 or 4 semi-mature ash trees is shown by the red arrow.

- WT2: Prevent the temporary pools from scrubbing over by clearing scrub as necessary on an ad-hoc basis.

## 7.8 Rough grassland adjacent to North Hills

Grazing has been recently introduced on the two strips of grassland adjacent to Tram Hill. Some positive indicators can be found here, such as lady's bedstraw, common bird's-foot trefoil and oxeye daisy. It is recommended to continue to graze these areas.

- RG1: Graze the two parcels of rough grassland off Tram Hill as per the grazing plan.

North Triangle has a large, dense stand of scrub at its centre; the management of this feature is not a priority during this five year period. There are very few positive indicators in the grassland of this parcel; as such it is recommended that the cattle are allowed to get on top of the parcels currently being grazed on the Common before introducing grazing here. Hay could be taken from the open areas if supplies are needed for the cattle. This will help to prevent further scrub encroachment.

- RG2: Take a hay cut from the open areas, removing the arisings, from mid-July depending on how advanced the season is.

The area of rough grassland at the south-western corner of North Hills is again rather lacking in positive indicator species and as above it is recommended that grazing is not introduced until the cattle are on top of the remainder of the Common. The secondary woodland is also not a priority for management during this five year period. The open areas of grassland could be cut, removing the arisings, to help to prevent further scrub encroachment during this five year period.

- **RG3: Cut the open areas, removing the arisings, from August.**

## 7.9 Span Green

A high proportion of this area is covered in scrub and bramble and the rougher habitat is likely to be a valuable resource for birds and invertebrates in the context of the adjacent farmland. The area will eventually succeed to secondary woodland in the absence of management; however similar to above it is recommended that the cattle are allowed to get on top of the remainder of the grassland before introducing grazing onto this parcel, particularly given that there are currently no watering points in this area.

During this five year period, the aim should be to maintain the mosaic of scrub and grassland and prevent further scrub encroachment.

- **SG1: Cut as much of the open areas as is manageable each year, including encroaching saplings (notably blackthorn). Cut from August and remove all cuttings. Take care not to use heavy machinery when the ground is wet.**

## 7.10 Pheasant Triangle

This area requires management to prevent the grasses becoming increasingly dominant over the herbs.

- **PT1: Take a hay cut, removing the arisings, from mid -July depending on how advanced the season is.**

### 7.11 Roadside Verges

These areas are not a priority for management within this five year period (some of the roadside hedges would appear to be managed by the adjacent land owners); however a hay cut could potentially be taken from the most northern verge if supplies are needed for stock on the Common.

- **RVI: Take hay from the most northern verge if supplies are required. Take hay from mid-July, depending on how advanced the season is.**

### 7.12 Amenity-Mown Areas

These areas are not a priority for management within this five year period; however their status as Common Land should be borne in mind.

### 7.13 General Management

- **GM1: Aim to remove all saplings (for example hawthorn, blackthorn and ash) which are encroaching onto open grassland.** This can be carried out during the summer provided it is clear that there are no nesting birds using the saplings. Remove all cuttings.
- **GM2: Control as much field horsetail as is manageable each year.** Field horsetail is a rhizomatous species and will require persistent management to control. Treatment with Glyphosphate ('Roundup') is likely to be impractical; given the density and extent of this plant on site it will be difficult to apply pesticides with precision. Aim to trim as much field horsetail as is manageable each year, notably in the areas highlighted in the site description. Close-trim and remove cuttings where practical. This can be carried out from August, provided that it is clear that there are no ground-nesting birds in the areas to be trimmed.
- **GM3: Control as many nettles and thistles (and docks) each year in the grazed areas of the Common as is manageable, aiming to reduce their overall combined cover on the Common to less than 5%.** If topping is not possible, weed-wiping or pulling should be employed. Remove cuttings where possible, although this may prove impractical.

Thistle control will be most effective at a time when the plant has put its energy into growing tall and producing a bud or flower, but **before the flowers go to seed**. Thistle control could thus start as early as June, but it is imperative that no ground-nesting birds are present in the area to be worked on.

- **GM4: Move the electric fencing and temporary gates, as required for the grazing plan to be fulfilled.** It is recommended that all volunteer groups take part in this activity, and if necessary the Parish Council should advertise for more volunteers for this task.
- **GM5: There are several incidences of encroachment on the Common; notably parking and managing parts of the Common as if they were 'garden'.** It is recommended that the Parish Council continues work to address this issue within the community.
- **GM6: It is recommended that Brill Parish Council seeks funding to implement a more permanent system for watering stock;** at present stock are kindly watered by residents who live on or near the Common and whose household water supplies are not on a meter system. If this relationship can be maintained with one or two local residents, it is recommended that the Parish Council seek to purchase a water bowser - chassis-mounted bowsers can be purchased with are suitable for towing on highways. The provision of a bowser would allow more remote areas of the Common, such as North Triangle and Span Green, to be grazed in the future once the cattle have got on top of the areas which are currently being grazed. The alternative of laying piped mains water could prove to be extremely expensive (although relatively small in size, Brill Common spans a large area), will require consultations and consents (planning consent and Secretary of State consent may be required), and the introduction of metered water will result in an additional, on-going expense for the Council.
- **GM7: It is recommended that fixed-point photography is introduced** at vantage points on the Common to help to quantify progress. Photographs should be taken from the same location, height from the ground, zoom ratio and angle from north each year or couple of years. Take photographs within the same month each time to avoid confounding effects of vegetation.
- **GM8: Pool local skills and knowledge to undertake species surveillance.** For example a licensed great crested newt surveyor could ascertain the population index and breeding status of amphibian species on site, and continue to monitor this.



## 7.14 General principles

The following general principles should be noted before work commences

- Nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). To avoid disturbance or harm to nesting birds, clearance of dense or mature scrub and bramble should only be carried out between October and February inclusive. This is reflected in the annual work plan (Section 9); note, however that the subsequent re-cutting of cleared scrub could be undertaken outside of this window if it is clear that there are no nesting birds present or adjacent.
- Work to clear thistles, nettles, field horsetail and young saplings can be undertaken during the summer months, provided that no ground-nesting birds are present in the area to be cut or treated.
- Herbicides such as Glyphosphate should be applied and stored by a suitably qualified person. All 'pesticides' must be used in a way which is compliant with cross-compliance SMR's and GAEC's and with the ELS agreement.
- If cuttings removed from scrub management and weed control are to be burned on site, it is advisable to minimise the number of fire sites and to re-use these areas for future fires rather than burning on new areas. Fire sites should not be on areas of archaeological interest.
- If log piles are constructed, aim to construct an irregular pile, with logs at all angles, heights and aspects. This will create a higher diversity of microclimates with a range of humidities, temperatures and varying degrees of shelter and exposure. These piles will provide more opportunities for invertebrates, amphibians, reptiles, mosses and liverworts than a 'neat' log pile.

## 7.15 Grazing Plan

### 7.15.1 *The importance of grazing*

In the absence of management or limiting factors, all grassland would eventually succeed to scrub or secondary woodland. This woodland would lack the structure and ground flora of ancient woodland, which takes hundreds of years to form; thus uniform scrub or secondary woodland are generally of poor conservation value if at the expense of species-rich grassland (although a controlled mosaic of scrub and woodland is of value amongst species-rich grassland). Grazing acts to halt succession by removing courser vegetation and saplings before they establish. Without grazing or cutting, the more vigorous, coarser grasses become dominant, out-competing low-growing herbs; this is compounded year-on-year as ungrazed grasses form a 'thatch', which further shades-out the herbs and begins to add Nitrogen to the ground as it rots down.



Dexter Cattle grazing South Hills (Triangle) amongst cow parsley, nettle and cleavers. Grazing is a key tool to 'knock back' these courser species to allow low-growing herbs to flower and seed.

According to the historic vascular plant records on Brill Common, much botanical interest has been lost since the cessation of grazing in the late 1990's. Much of the Common is now very rank in nature, with the grassland sward being dominated by hogweed, cow parsley, common cleavers and common (stinging) nettle. Whilst these species produce a 'show' of wild flowers, rough grassland is of significantly less conservation interest than the species-rich grassland which has apparently declined; whilst the plants present in these areas of rough grassland will have some wildlife interest, they are generally very common throughout the UK, including in hedgerows and roadside verges. Conversely, according to the UK BAP, it is estimated that only 40,000 – 50,000 hectares of lowland calcareous grassland remain in the UK today. Reintroduction of grazing and the formation of a community herd is hence a very positive step forward in the management of the Common and towards the Parish Council's duty to conserve biodiversity under Section 40 of the NERC Act (see Section 5.1); indeed, the Parish Council is contracted under their ELS agreement to manage the areas

assigned with the options EK2 and EK3 by grazing and/or cutting to remove the year's growth.

Cattle are an extremely valuable conservation tool for grassland management. Whereas sheep tend to 'mow' to give a uniform, tight sward, cattle will browse; leaving behind a more varied, tussocky structure to the sward. This more varied sward is of greater value to invertebrates, amphibians, reptiles and ground-nesting birds, and also leaves a proportion of herbs un-grazed, so that they have the chance to flower and set seed. Cattle dung is an entire habitat in itself; for example, fungi and invertebrates will colonise pats, which in turn provides food for birds and bats. In particular, Dexter Cattle are an ideal breed for conservation grazing owing to their small size; they are deemed more appropriate for public sites and they are also less likely to poach excessively (note that a little poaching can be a good thing, as it creates bare ground for wild flowers to seed into).

A walk-over survey of the vascular plants present on the Common was carried out in June 2010 by Ellie Phillips and Jenny Phelps, Gloucestershire FWAG. Whilst some positive indicator species were recorded at this time, indicator species not recorded in 2010 which were recorded during the survey for this management plan include upright brome, crested hair-grass, fairy flax and milkwort. Whilst these species are currently very restricted over the site, their presence is extremely encouraging. Other species, such as field wood-rush, were noted to have increased in occurrence over the site; whilst it is difficult to draw conclusions between two seasons, this is also encouraging. Whilst much of the Common cannot be considered to be ancient pasture and it is thus unclear to what extent species-rich grassland can be restored, these are early indications that the grazing regime on the Common is proving effective.



**Left:** A single plant of fairy flax (*Linum catharticum*) recorded on South Hills (Triangle) at SP65101394.



**Right:** A few plants of milkwort (*Polygala* sp.) recorded on North Hills at SP65381441 amongst a mat of mouse-ear hawkweed (*Pilosella officinarum*); also a good indicator species. Other positive indicator species in the immediate vicinity were common bird's-foot trefoil (*Lotus corniculatus*), field wood-rush (*Luzula campestris*), red fescue (*Festuca rubra*) and sheep's-sorrel (*Rumex acetosella*).

### 7.15.2 General principles

- **Animal Welfare**

Aside from the principal importance of animal welfare, healthy stock are integral to a sustainable grazing regime; animals in poor condition will be inefficient grazers, will struggle in harsher, winter conditions and are likely to provoke complaints from members of the public. The Dexter Cattle on Brill Common look in excellent condition; any grazing regime implemented must allow this to continue – each grazing area must have a secure source of water, sufficient shelter and dry, flat areas for cattle to lie-up. This is especially important for over-wintering paddocks. A little supplementary feeding of hay, and mineral licks, will be necessary to keep stock in good condition through the winter (see below).

- **Supplementary Feeding**

As above, supplementary feeding is important at times to maintain stock condition, particularly when there is snow on the ground. In seasons when hay taken from the Common is of insufficient yield or quality, it is acceptable to import hay. In this case, it is best practice, where possible, to:

- Source hay as locally as possible
- 'Vet' the field before the hay cut is taken to ensure that it does not have a high content of undesirable species such as thistles and docks
- Take the hay as an early cut, before the grasses and herbs have gone to seed, to reduce the introduction of seed onto Brill Common.

Supplementary feeding is not permitted on parcels with the ELS EK3 option (permanent grassland with very low inputs); thus over-wintering cattle on South Hills for the harshest winter months is unlikely to be practical. Over-wintering the cattle in these harsh months is likely to be restricted to North Hills, which has the EK2 option (permanent grassland with low inputs), and to the other areas of the Common which do not have a specific ELS option assigned to them.

When supplementary feeding, two approaches can be adopted to avoid excessive, widespread poaching; either the feeder can be

moved as often as is required to avoid poaching at all, or a low value 'sacrificial area' can be allocated for the feeder, so that a small area is poached to benefit a large area. In many cases, the latter option can prove effective, particularly if the feeder can be placed in the vicinity of the water trough (i.e. there is poaching in the area anyway), and particularly if the land tends to lie wet; in this case localised poaching can occur very rapidly and moving the feeder regularly can cause more widespread damage than if it were left in one, sacrificial area. The latter option would appear to have been adopted successfully on North Hills; localised poaching is evident in a low value, nettle rich area of the parcel and barely any poaching is apparent elsewhere.

Whilst supplementary feeding is permitted under the EK2 option, the option does stipulate that feeders should be moved as often as required to avoid poaching. Given that this approach has not previously been adopted on the Common it is recommended that Brill Parish Council discuss this with their local Natural England team; it may be possible to obtain a derogation in very wet winters if it is proving difficult to move the feeder regularly enough to avoid poaching. Should Natural England require regular movement of the feeder, it is recommended that Brill Parish Council ensure that sufficient volunteers are recruited to do so, as this will represent a significant increase in workload.

- **Timing of Grazing and Rotational Grazing**

Semi-natural, species-rich grassland is created by grazing; most of the herbs present in such a habitat have adapted to be competitive in extremely nutrient-poor conditions and are low-growing to cope with grazing pressure. Thus in the absence of grazing they are not able to compete with coarser species and are eventually lost from the sward. To this end, it is perfectly acceptable to graze throughout the year, provided that a proportion of herbs get the chance to flower and seed without being grazed off. There are merits and draw-backs to grazing at various times of year and the balance must be sought based on stock availability and the species present on site.

Spring grazing can be useful to reduce the vigour of unpalatable, coarse grasses and new scrub, as the new spring growth can be a little more appealing to stock. Removing early grass growth can 'make space' for herbs to come through. However, repeated spring grazing

in one area can, if the stocking density is sufficiently high, have a negative impact on early-flowering herbs. Similarly, if stocking density is high, some invertebrates and ground nesting birds may be affected. Summer grazing again removes vegetation when growth rates are high; however heavy grazing can remove too many flowering herbs so that insufficient numbers set seed. Heavy grazing can also have a negative impact on invertebrates at this time. Autumn grazing is 'safer' in terms of impact on flowering herbs and invertebrates; however the vegetation will be becoming less palatable to stock as it dies back and dries out – herbs may be preferentially taken over the coarser grasses. Winter is a good time to play 'catch up' on under-grazed sites, as vegetation can be removed without affecting spring and summer – flowering herbs and without impacting on invertebrates. However, there is a higher risk of poaching during the wetter months, and if stocking density is high (or stock remain in an area for too long), removal of all vegetation can deplete habitat for over-wintering invertebrates.

In practice, a grazing regime will be influenced by the seasonal conditions (and correspondingly the vigour of vegetation growth), the practicalities of husbandry (for example watering stock) and by stock welfare. Grazing may need to be planned to take the requirements of notable or target species into account, planning around times of year where these species may be vulnerable, and continuity of management may also be important for certain species. When stock are on site all year, a balance can be achieved by rotating paddocks (if a given area is grazed in summer, an adjacent area could be grazed at a different time, swapping the rotation again in the next year), and by altering the grazing intensity according to the season, either by altering the stocking density or the length of time stock spend in one parcel.

- **Restoration Grazing**

In cases such as Brill Common where grazing is for restoration rather than maintenance, it is important to keep on top of grazing to gradually knock back the coarser species. Relaxing the grazing pressure for too long after thoroughly grazing out an area will result in a 'boom' in species such as hogweed and cow parsley, as has historically happened on the Common; this would represent a setback in the restoration of species-rich grassland. For this reason, it is recommended that no further areas are incorporated into the grazing

cycle on the Common until the cattle are on top of the existing areas under grazing management. Remaining areas will be managed by cutting, which will fulfil the Council's obligations under ELS.

In order to keep on top of the grasses and coarser species, as mentioned above, restoration grazing needs to be relatively intense (in conservation terms). At present the community herd does not have a separate holding to move onto; however the Parish Council are investigating the possibility of leasing 'The Walks', which are immediately adjacent to the Common (it is important to note here that movements between holdings must be reported to the British Cattle Movement Service and that local TB testing regulations must be adhered to). This area would be a very useful contingency for bad weather or poor growing seasons; however removing the stock from the Common for sustained periods during this restoration phase would represent a missed opportunity on the Common. Grazing frequency and intensity should be re-visited once the grassland has been restored to a realistic level of species-richness.

#### *7.15.3 Grazing Plan*

At a size of between six and ten Dexter Cattle, the community herd give only a light stocking density over the whole Common. Using electric fence penning, the intensity of grazing can be altered for different paddocks at different times of year, to allow a proportion of herbs to flower and seed during spring and summer grazing whilst using the winter months to knock back the coarser grasses with more intensive grazing. A proportion of 'rough' habitat should be allowed to remain through each winter to provide over-wintering food and habitat for birds and invertebrates. At present, there are no recent records to suggest that there are any 'notable' species on site which would be affected by grazing at a specific time of year or which require highly continuous management.

The grazing on Brill Common should be led by on-going monitoring of the structural attributes of the sward on a case-by-case basis in each paddock and at each time of year. In the longer term, the progress of the grazing regime should be reviewed by re-surveying the grazed areas and noting the positive indicator species present and their frequency over the site (frequencies of positive indicator species recorded in May 2011 in the three main grazed areas are given in Appendix One).

The tables below provide the framework for the grazing cycle for this five year period. As the grazing is for restoration, this is a relatively intense regime (in conservation terms); however it is compliant with the requirements for the ELS options EK2 and EK3. Table 1 gives the desirable sward structure to be produced by grazing at each time of year. Table 2 shows seasons when each paddock should **not** be grazed throughout this five year period. The paddocks are shown on the grazing map. Combined, these tables provide the information required to decide whether to graze a given paddock, and when to remove the cattle from the paddock if it is grazed. For example, if a given paddock is shown as 'available' for grazing in June to August of 2012 and it has a more-or-less uniform sward height of 15cm, the paddock can be grazed.

Note that the target is not necessarily to graze each one of the paddocks shown as available for grazing in Table 2 in each season; some may not require grazing (based on the guidelines in Table 1), and it also might be unrealistic for the cattle to get round them all in a given seasonal window. Paddocks which are available for grazing in a given seasonal window can be prioritised in that season based on:

- i) How far the sward deviates from the guidelines in Table 1;
- ii) How long ago a paddock was last grazed (i.e. how long it has been 'waiting' to be grazed); and
- iii) How recently grazed/well-grazed out immediately adjacent paddocks are.

Equally, if a given growing season is particularly poor, it might be necessary to pen the cattle in an area which is marked as 'unavailable' for grazing (unless The Walks is available as a contingency area). Should this be necessary, the above thought process should be applied in deciding which of the 'unavailable' areas should be grazed.

A little poaching is an inevitable by-product of grazing; however the aim should be to keep poaching to a minimum, with localised poaching covering no more than 5% of the paddock; otherwise stock should be pulled off the paddock in question.



**Table 1:** Desirable sward structure produced by grazing in paddocks at each time of year.

Time of Year	Desirable sward structure after grazing
Spring (Mar-May)	<ul style="list-style-type: none"> <li>• 3/5<sup>th</sup> less than 7cm tall</li> <li>• 1/5<sup>th</sup> greater than 7 cm tall</li> <li>• A range of sward heights in between</li> </ul>
	<ul style="list-style-type: none"> <li>• 2/5<sup>th</sup> less than 7cm tall</li> <li>• 1/5<sup>th</sup> greater than 7 cm tall</li> <li>• A range of sward heights in between</li> </ul>
Summer (June-Aug)	<ul style="list-style-type: none"> <li>• 2/5<sup>th</sup> less than 7cm tall</li> <li>• 1/5<sup>th</sup> greater than 7 cm tall</li> <li>• A range of sward heights in between</li> </ul>
Autumn (Sept-Oct)	<ul style="list-style-type: none"> <li>• 3/5<sup>th</sup> less than 7cm tall</li> <li>• 1/5<sup>th</sup> greater than 7 cm tall</li> <li>• A range of sward heights in between</li> </ul>
Winter (Nov-Feb)	<ul style="list-style-type: none"> <li>• 3/5<sup>th</sup> less than 7cm tall (as low as 5 cm)</li> <li>• 1/5<sup>th</sup> greater than 7 cm tall</li> <li>• A range of sward heights in between</li> <li>• 'Thatch' (un-grazed, dead grass from previous seasons) no more than 20% cover.</li> </ul>

Table 2: Seasons when each paddock should **not** be grazed throughout the five year period

Paddock	Time of year	Year 1 2011/12	Year 2 2012/13	Year 3 2013/14	Year 4 2014/15	Year 5 2015/16	Comments
1	Spring (Mar-May)						
	Summer (June-Aug)						
	Autumn (Sept-Oct)						
	Winter (Nov-Feb)						Supplementary feeding not permitted on EK3. Winter grazing can take place here throughout some of the season if grazing is required for the herd; however NO supplementary feeding permitted.
2	Spring (Mar-May)						A relatively intense grazing regime here for this five year period for two reasons; i) the area immediately adjacent is not to be grazed in late spring or summer, and ii) this area is very rank with much cow parsley, hogweed and nettle etc to be controlled.
	Summer (June-Aug)						
	Autumn (Sept-Oct)						
	Winter (Nov-Feb)						Supplementary feeding not permitted on EK3. Winter grazing can take place here throughout some of the season if grazing is required for the herd; however NO supplementary feeding permitted.
2a	Spring (Mar-May)						Grazing is to be newly introduced to this area, which is subject to a fair amount recreational pressure. To facilitate public acceptance, it is recommended to avoid grazing in late spring and summer during this five year period.
	Summer (June-Aug)						
	Autumn (Sept-Oct)						
	Winter (Nov-Feb)						Supplementary feeding not permitted on EK3. Winter grazing can take place here throughout some of the season if grazing is required for the herd; however NO supplementary feeding permitted.

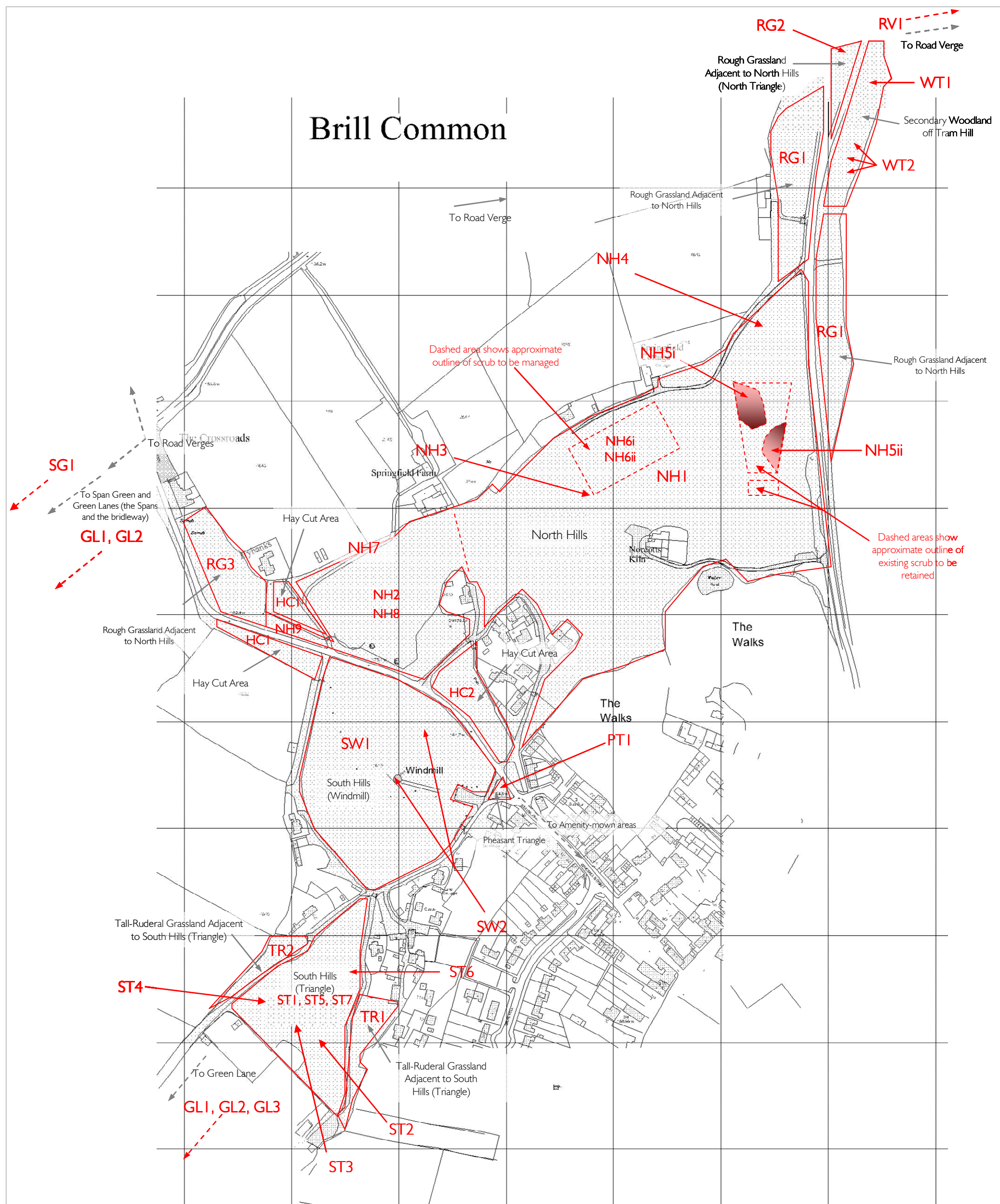
3	Spring (Mar-May)	Area was grazed 2011					
	Summer (June-Aug)						
	Autumn (Sept-Oct)						
	Winter (Nov-Feb)						Take particular care to avoid poaching on the banks in the area west of the track to Springfield Farm.
4	Spring (Mar-May)						
	Summer (June-Aug)						
	Autumn (Sept-Oct)						
	Winter (Nov-Feb)	Area was grazed 2010					
5	Spring (Mar-May)						Area must be grazed in two halves to maintain resident's access. A relatively intense grazing regime here for this five year period as the area is very rank; relaxation over a couple of late spring/summer periods to allow positive herbs to seed.
	Summer (June-Aug)						
	Autumn (Sept-Oct)						
	Winter (Nov-Feb)						
6	Spring (Mar-May)						A relatively intense grazing regime here for this five year period as the area is very rank; relaxation over a couple of late spring/summer periods to allow positive herbs to seed.
	Summer (June-Aug)						
	Autumn (Sept-Oct)						
	Winter (Nov-Feb)						

**Grazing Map:** Map of Brill Common, kindly provided by Brill Parish Council, to show the grazing paddocks described in the grazing plan.



## 8 Management Map

**Management Map:** Map of Brill Common, kindly provided by Brill Parish Council, to show the location of each management code (described in Section 7), denoted by red text, relative to each area of the Common (as described in Section 4), denoted by black text. Where management actions are general to an area the code is placed within that area; where the management action has a more specific location, this location is shown with a red arrow.





## 9 Annual Work Plan

Management Code	2011	2012	2013	2014	2015	Time of Year	Comments
GL1						After May	
GL2	✓	✓	✓	✓	✓	Oct-Feb	As and when funds become available. Hedge laying is best carried out in Jan/Feb when the 'sap is down'.
GL3	✓	✓	✓	✓	✓	Oct-Feb	If/as necessary
TR1	✓	✓	✓	✓	✓	From Aug	
TR2	✓	✓	✓	✓	✓	Oct-Feb	
ST1	✓	✓	✓	✓	✓		As per grazing plan
ST2	✓	✓	✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
ST3		✓	✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
ST4			✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
ST5			✓			Oct-Feb	Many are surrounded by bramble – avoid nesting bird season.
ST6			✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
ST7	✓	✓	✓	✓	✓	Before July	Re-pull each year until eradicated
SW1	✓	✓	✓	✓	✓		As per grazing plan
SW2	✓	✓	✓	✓	✓		Can be addressed at any time during the 5 year period
HC1	✓	✓	✓	✓	✓	From mid-July	Depending on how advanced the season is.
HC2	✓	✓	✓	✓	✓	March, then from mid-July	The latter depends upon how advanced the season is.
NH1	✓	✓	✓	✓	✓		As per grazing plan
NH2	✓		✓			Oct-Feb	Re-cut if necessary
NH3		✓		✓		Oct-Feb	Re-cut if necessary
NH4	✓	✓	✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns

NH5i		✓	✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
NH5ii				✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
NH6i	✓	✓	✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
NH6ii			✓	✓	✓	Oct-Feb	Re-cut each year until grassland sward returns
NH7	✓	✓	✓	✓	✓	Oct-Feb	
NH8	✓	✓	✓	✓	✓		Can be addressed at any time during the 5 year period
NH9	✓	✓	✓	✓	✓	From Aug	
WT1	✓	✓	✓	✓	✓	Oct-Feb	Can be addressed at any time during the 5 year period
WT2	✓	✓	✓	✓	✓	Oct-Feb	If/as necessary
RG1	✓	✓	✓	✓	✓		As per grazing plan
RG2	✓	✓	✓	✓	✓	From mid-July	Depending on how advanced the season is.
RG3	✓	✓	✓	✓	✓	From Aug	
SG1	✓	✓	✓	✓	✓	From Aug	NB to avoid harm to nesting birds if cutting in summer, cut only <b>young</b> saplings which are in the grassland sward.
PT1	✓	✓	✓	✓	✓	From Aug	
RV1	✓	✓	✓	✓	✓	From Aug	If/as necessary
GM1	✓	✓	✓	✓	✓	Any time, inc. Mar-Sept	NB to avoid harm to nesting birds if cutting in summer, cut only <b>young</b> saplings which are in the grassland sward
GM2	✓	✓	✓	✓	✓	From Aug	NB ensure ground-nesting birds are not present
GM3	✓	✓	✓	✓	✓	From June	NB ensure ground-nesting birds are not present.
GM4	✓	✓	✓	✓	✓	All year	Maintain volunteer interest/recruitment throughout 5 year period
GM5	✓	✓	✓	✓	✓		Can be addressed at any time during the 5 year period
GM6	✓	✓	✓	✓	✓		Can be addressed at any time during the 5 year period
GM7	✓	✓	✓	✓	✓	Same month each time	Every year or two years.
GM8	✓	✓	✓	✓	✓		Can be addressed at any time during the 5 year period; however the earlier, the better. NB surveillance itself should be carried out at an appropriate time of year, as per the standard protocol for the species in question.



## 10 Future Recommendations

At the end of this five year period, it is recommended that the Common is re-surveyed and with a view to drawing up another five year management plan.

The plan should review the progress of the grazing regime (including the frequency of positive indicator species) and review the timing of grazing and grazing pressure. If the cattle are on top of the areas recommended for grazing during this five year period, it may be possible to introduce grazing onto other areas of the Common, for example Span Green (although this will also depend on the provision of water in these areas).

The next plan should also review the cover of scrub on the Common; once the cover of scrub has been reduced to a desirable level, a rotational cutting plan should be drawn up. This will aim to introduce and maintain structural diversity within the scrub and will also further restore the views from North Hills over the Aylesbury Vale.

## 11 Appendix One

The following section gives lists of species recorded during the survey for the management plan. The site is split into discrete parcels, grouping areas of similar flora (or habitat types). These lists were produced during walk-over surveys and should not be interpreted as a full species lists; however the three main areas of grazed grassland were surveyed in more detail with a view to generating base-line data to allow monitoring of these areas. A DAFOR category (Dominant, Abundant, Frequent, Occasional or Rare) is assigned to species indicative of semi- or unimproved grassland in these areas to assist with future monitoring. The 'status' column in each list details 'notable' (i.e. nationally restricted) species and non-native/introduced species.

### 11.1 Green Lanes

Species	Common name	Status
<i>Acer campestre</i>	Field maple	
<i>Alliaria petiolata</i>	Jack-by-the-hedge/garlic mustard	
<i>Alopecurus pratensis</i>	Meadow fox-tail	
<i>Anisantha sterilis</i>	Barren brome	
<i>Anthriscus sylvestris</i>	Cow parsley	
<i>Apium nodiflorum</i>	Fool's watercress	
<i>Arrhenatherum elatius</i>	False oat-grass	
<i>Calystegia sepium</i>	Hedge bindweed	
<i>Cirsium arvense</i>	Creeping thistle	
<i>Cornus sanguinea</i>	Dogwood	
<i>Corylus avellana</i>	Hazel	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Epilobium hirsutum</i>	Great willowherb	
<i>Equisetum arvense</i>	Field horsetail	
<i>Fraxinus excelsior</i>	Ash	
<i>Galium aparine</i>	Common cleavers	
<i>Glechoma hederacea</i>	Ground ivy	
<i>Hedera helix</i>	Ivy	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Lamium album</i>	White dead-nettle	

<i>Lolium perenne</i>	Perennial rye-grass	
<i>Matricaria discoidea</i>	Pineapple weed	
<i>Mercurialis perennis</i>	Dog's mercury	
<i>Papaver rhoeas</i>	Common poppy	
<i>Plantago major</i>	Greater plantain	
<i>Poa annua</i>	Annual meadow-grass	
<i>Poa trivialis</i>	Rough meadow-grass	
<i>Polygonum</i> sp.	Knot grass	
<i>Potentilla anserina</i>	Silverweed	
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus</i> sp.	Oak	
<i>Ranunculus repens</i>	Creeping buttercup	
<i>Rosa</i> sp.	A dog rose	
<i>Rosa</i> sp.	A field rose	
<i>Rubus</i> sp.	Bramble	
<i>Rumex crispus</i>	Curled dock	
<i>Rumex obtusifolius</i>	Broad-leaved dock	
<i>Salix fragilis</i>	Crack willow	
<i>Salix</i> sp.	A willow	
<i>Sambucus nigra</i>	Elder	
<i>Silene dioica</i>	Red campion	
<i>Solanum dulcamara</i>	Bittersweet/woody nightshade	
<i>Stachys sylvatica</i>	Hedge woundwort	
<i>Stellaria media</i>	Common chickweed	
<i>Symphoricarpos</i> sp.	Snowberry	Introduced
<i>Trifolium repens</i>	White clover	
<i>Typha latifolia</i>	Common reed mace	
<i>Ulmus</i> sp.	Elm	
<i>Urtica dioica</i>	Common (stinging) nettle	
<i>Vicia sepium</i>	Bush vetch	

## 11.2 Tall-Ruderal Grassland Adjacent to South Hills (Triangle)

Species	Common name	Status
<i>Achillea millefolium</i>	Yarrow	
<i>Agrimonia eupatoria</i>	Agrimony	
<i>Alopecurus pratensis</i>	Meadow fox-tail	
<i>Anthriscus sylvestris</i>	Cow parsley	
<i>Arctium</i> sp.	Burdock	
<i>Arrhenatherum elatius</i>	False oat-grass	
<i>Buddleja davidii</i>	Butterfly-bush/buddleia	Introduced
<i>Calystegia sepium</i>	Hedge bindweed	
<i>Cerastium fontanum</i>	Common mouse-ear	
<i>Cirsium arvense</i>	Creeping thistle	
<i>Cirsium vulgare</i>	Spear thistle	
<i>Convolvulus arvensis</i>	Field bindweed	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Deschampsia cespitosa</i>	Tufted hair-grass	
<i>Epilobium hirsutum</i>	Great willowherb	
<i>Equisetum arvense</i>	Field horsetail	
<i>Festuca rubra</i>	Red fescue	
<i>Galium aparine</i>	Common cleavers	
<i>Galium verum</i>	Lady's bedstraw	
<i>Glechoma hederacea</i>	Ground ivy	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Hypochaeris radicata</i>	Cat's-ear	
<i>Juncus effusus</i>	Soft rush	
<i>Lamium album</i>	White dead-nettle	
<i>Lathyrus pratensis</i>	Meadow vetchling	
<i>Leucanthemum vulgare</i>	Oxeye daisy	
<i>Lolium perenne</i>	Perennial rye-grass	
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil	
<i>Myosotis</i> sp.	Forget-me-not	
<i>Pentaglottis sempervirens</i>	Green alkanet	Introduced
<i>Plantago lanceolata</i>	Ribwort plantain	
<i>Poa pratensis</i>	Smooth meadow-grass	
<i>Poa trivialis</i>	Rough meadow-grass	

<i>Potentilla anserina</i>	Silverweed	
<i>Potentilla recta</i>	Sulphur cinquefoil	Introduced
<i>Potentilla reptans</i>	Creeping cinquefoil	
<i>Quercus sp.</i>	Oak	
<i>Ranunculus repens</i>	Creeping buttercup	
<i>Rubus sp.</i>	Bramble	
<i>Rumex acetosa</i>	Common sorrel	
<i>Rumex crispus</i>	Curled dock	
<i>Rumex obtusifolius</i>	Broad-leaved dock	
<i>Sambucus nigra</i>	Elder	
<i>Silene dioica</i>	Red campion	
<i>Stachys sylvatica</i>	Hedge woundwort	
<i>Stellaria media</i>	Common chickweed	
<i>Trifolium dubium</i>	Lesser trefoil	
<i>Trifolium pratense</i>	Red clover	
<i>Trifolium repens</i>	White clover	
<i>Trifolium sp.</i>	A clover	
<i>Trisetum flavescens</i>	Yellow oat-grass	
<i>Urtica dioica</i>	Common (stinging) nettle	
<i>Veronica chamaedrys</i>	Germander speedwell	
<i>Vicia sativa</i>	Common vetch	

- Common lizard (*Lacerta vivipara*) noted in the tall-ruderal area west of South Hills (Triangle).

### 11.3 South Hills (Triangle)

Species	Common name	Status	Indicator Species & DAFOR
<i>Acer pseudoplatanus</i>	Sycamore	Introduced/ naturalised	
<i>Achillea millefolium</i>	Yarrow		
<i>Alopecurus pratensis</i>	Meadow fox-tail		
<i>Anisantha sterilis</i>	Barren brome		
<i>Anthriscus sylvestris</i>	Cow parsley		
<i>Arrhenatherum elatius</i>	False oat-grass		
<i>Bromus hordeaceus</i>	Soft brome		
<i>Cerastium fontanum</i>	Common mouse-ear		
<i>Chamerion angustifolium</i>	Rosebay willowherb		
<i>Cirsium arvense</i>	Creeping thistle		
<i>Crataegus monogyna</i>	Hawthorn		
<i>Crataegus monogyna</i>	Hawthorn		
<i>Dactylis glomerata</i>	Cock's-foot		
<i>Deschampsia cespitosa</i>	Tufted hair-grass		
<i>Epilobium hirsutum</i>	Great willowherb		
<i>Equisetum arvense</i>	Field horsetail		
<i>Festuca rubra</i>	Red fescue		Yes - Locally Frequent
<i>Fraxinus excelsior</i>	Ash		
<i>Galium aparine</i>	Common cleavers		
<i>Galium verum</i>	Lady's bedstraw		Yes - Occasional, Locally Frequent
<i>Geum urbanum</i>	Wood avens		
<i>Glechoma hederacea</i>	Ground ivy		
<i>Heracleum sphondylium</i>	Hogweed		
<i>Holcus lanatus</i>	Yorkshire-fog		
<i>Lathyrus pratensis</i>	Meadow vetchling		
<i>Linum catharticum</i>	Fairy flax		Yes - Rare
<i>Lolium perenne</i>	Perennial rye-grass		
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil		Yes - Occasional
<i>Plantago lanceolata</i>	Ribwort plantain		
<i>Plantago major</i>	Greater plantain		
<i>Poa pratensis</i>	Smooth meadow-grass		

<i>Poa trivialis</i>	Rough meadow-grass		
<i>Potentilla reptans</i>	Creeping cinquefoil		
<i>Ranunculus acris</i>	Meadow buttercup		
<i>Rosa</i> sp.	A dog rose		
<i>Rubus</i> sp.	Bramble		
<i>Rumex acetosa</i>	Common sorrel		
<i>Rumex crispus</i>	Curled dock		
<i>Salix</i> sp.	A willow		
<i>Silene dioica</i>	Red campion		
<i>Solanum dulcamara</i>	Bittersweet/woody nightshade		
<i>Sonchus</i> sp.	A sow thistle		
<i>Stachys sylvatica</i>	Hedge woundwort		
<i>Stellaria graminea</i>	Lesser stitchwort		
<i>Stellaria media</i>	Common chickweed		
<i>Trifolium dubium</i>	Lesser trefoil		
<i>Trifolium pratense</i>	Red clover		
<i>Trifolium repens</i>	White clover		
<i>Urtica dioica</i>	Common (stinging) nettle		
<i>Veronica chamaedrys</i>	Germander speedwell		
<i>Vicia sativa</i>	Common vetch		



## 11.4 South Hills (Windmill)

Species	Common name	Status	Indicator Species & DAFOR
<i>Acer pseudoplatanus</i>	Sycamore	Introduced/ naturalised	
<i>Achillea millefolium</i>	Yarrow		
<i>Agrimonia eupatoria</i>	Agrimony		
<i>Alopecurus pratensis</i>	Meadow fox-tail		
<i>Anisantha sterilis</i>	Barren brome		
<i>Anthoxanthum odoratum</i>	Sweet vernal grass		
<i>Anthriscus sylvestris</i>	Cow parsley		
<i>Arenaria</i> sp.	A sandwort		
<i>Arrhenatherum elatius</i>	False oat-grass		
<i>Bellis perennis</i>	Daisy		
<i>Bromus hordeaceus</i>	Soft brome		
<i>Calystegia sepium</i>	Hedge bindweed		
<i>Capsella bursa-pastoris</i>	Shepherds' purse		
<i>Carex flacca</i>	Glaucous sedge		Yes - Rare
<i>Centaurea nigra</i>	Common knapweed		Yes - Rare
<i>Cerastium fontanum</i>	Common mouse-ear		
<i>Cirsium vulgare</i>	Spear thistle		
<i>Crataegus monogyna</i>	Hawthorn		
<i>Crataegus monogyna</i>	Hawthorn		
<i>Cynosurus cristatus</i>	Crested dog's-tail		
<i>Dactylis glomerata</i>	Cock's-foot		
<i>Deschampsia cespitosa</i>	Tufted hair-grass		
<i>Epilobium hirsutum</i>	Greatwillowherb		
<i>Equisetum arvense</i>	Field horsetail		
<i>Festuca rubra</i>	Red fescue		
<i>Fraxinus excelsior</i>	Ash		
<i>Galium aparine</i>	Common cleavers		
<i>Galium verum</i>	Lady's bedstraw		Yes - Occasional
<i>Geranium dissectum</i>	Cut-leaved crane's-bill		
<i>Glechoma hederacea</i>	Ground ivy		
<i>Heracleum sphondylium</i>	Hogweed		
<i>Holcus lanatus</i>	Yorkshire-fog		
<i>Hordeum murinum</i>	Wall barley		

<i>Hypochaeris radicata</i>	Cat's-ear		
<i>Juncus inflexus</i>	Hard rush		
<i>Koeleria macrantha</i>	Crested hair-grass		Yes - Rare
<i>Leontodon</i> sp.	A hawkbit		Yes - Rare
<i>Leucanthemum vulgare</i>	Oxeye daisy		Yes - Occasional
<i>Lolium perenne</i>	Perennial rye-grass		
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil		Yes - Occasional
<i>Luzula campestris</i>	Field wood-rush		Yes - Rare
<i>Melissa officinalis</i>	Lemon balm	Introduced	
<i>Origanum vulgare</i>	Wild marjoram		Yes - Rare, Locally Frequent
<i>Pentaglottis sempervirens</i>	Green alkanet	Introduced	
<i>Pilosella officinarum</i>	Mouse-ear hawkweed		Yes - Occasional, Locally Frequent
<i>Plantago lanceolata</i>	Ribwort plantain		
<i>Poa annua</i>	Annual meadow-grass		
<i>Poa annua</i>	Annual meadow-grass		
<i>Poa trivialis</i>	Rough meadow-grass		
<i>Potentilla anserina</i>	Silverweed		
<i>Poterium sanguisorba</i>	Salad burnet		Yes - Rare
<i>Ranunculus bulbosus</i>	Bulbous buttercup		
<i>Ranunculus repens</i>	Creeping buttercup		
<i>Rosa</i> sp.	A dog rose		
<i>Rubus</i> sp.	Bramble		
<i>Rubus</i> sp.	Bramble		
<i>Rumex acetosa</i>	Common sorrel		
<i>Rumex crispus</i>	Curled dock		
<i>Rumex obtusifolius</i>	Broad-leaved dock		
<i>Salix alba</i>	White willow		
<i>Salix</i> sp.	A willow		
<i>Sambucus nigra</i>	Elder		
<i>Schedonorus pratensis</i>	Meadow fescue		
<i>Silene dioica</i>	Red campion		
<i>Sonchus</i> sp.	A sow thistle		
<i>Tragopogon pratensis</i>	Goat's-beard		
<i>Trifolium dubium</i>	Lesser trefoil		
<i>Trifolium pratense</i>	Red clover		
<i>Trifolium repens</i>	White clover		

<i>Trifolium</i> sp.	A clover		
<i>Trisetum flavescens</i>	Yellow oat-grass		Yes - Rare
<i>Urtica dioica</i>	Common (stinging) nettle		
<i>Veronica chamaedrys</i>	Germander speedwell		
<i>Vicia sativa</i>	Common vetch		

## 11.5 Hay Cut Areas

Species	Common name	Status
<i>Acer pseudoplatanus</i>	Sycamore	Introduced/ naturalised
<i>Achillea millefolium</i>	Yarrow	
<i>Anisantha sterilis</i>	Barren brome	
<i>Anthriscus sylvestris</i>	Cow parsley	
<i>Arrhenatherum elatius</i>	False oat-grass	
<i>Cerastium fontanum</i>	Common mouse-ear	
<i>Cirsium arvense</i>	Creeping thistle	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Festuca rubra</i>	Red fescue	
<i>Galium verum</i>	Lady's bedstraw	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Holcus lanatus</i>	Yorkshire-fog	
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil	
<i>Luzula campestris</i>	Field wood-rush	
<i>Origanum vulgare</i>	Wild marjoram	
<i>Plantago lanceolata</i>	Ribwort plantain	
<i>Poa trivialis</i>	Rough meadow-grass	
<i>Primula veris</i>	Cowslip	
<i>Ranunculus bulbosus</i>	Bulbous buttercup	
<i>Rhinanthus minor</i>	Yellow-rattle	
<i>Rubus sp.</i>	Bramble	
<i>Rumex acetosa</i>	Common sorrel	
<i>Sambucus nigra</i>	Elder	
<i>Tragopogon pratensis</i>	Goat's-beard	
<i>Trifolium pratense</i>	Red clover	
<i>Veronica chamaedrys</i>	Germander speedwell	
<i>Veronica persica</i>	Common field-speedwell	
<i>Vicia sativa</i>	Common vetch	

## 11.6 North Hills

Species	Common name	Status	Indicator Species & DAFOR
<i>Achillea millefolium</i>	Yarrow		
<i>Agrimonia eupatoria</i>	Agrimony		
<i>Alopecurus pratensis</i>	Meadow fox-tail		
<i>Anthoxanthum odoratum</i>	Sweet vernal grass		
<i>Anthriscus sylvestris</i>	Cow parsley		
<i>Apium nodiflorum</i>	Fool's water-cress		
<i>Arrhenatherum elatius</i>	False oat-grass		
<i>Briza media</i>	Quaking-grass		Yes - Rare
<i>Bromopsis erecta</i>	Upright brome		Yes - Rare
<i>Carex flacca</i>	Glaucous sedge		Yes - Rare
<i>Carlina vulgaris</i>	Carlina thistle		Yes - Rare
<i>Centaurea nigra</i>	Common knapweed		Yes - Rare
<i>Cerastium fontanum</i>	Common mouse-ear		
<i>Chamerion angustifolium</i>	Rosebay willowherb		
<i>Chrysanthemum vulgare</i>	Tansy	Archaeophyte	
<i>Cirsium acaule</i>	Stemless/dwarf thistle		Yes - Rare
<i>Cirsium arvense</i>	Creeping thistle		
<i>Crataegus monogyna</i>	Hawthorn		
<i>Dactylis glomerata</i>	Cock's-foot		
<i>Dryopteris filix-mas</i>	Male-fern		
<i>Equisetum arvense</i>	Field horsetail		
<i>Festuca rubra</i>	Red fescue		
<i>Fraxinus excelsior</i>	Ash		
<i>Galium aparine</i>	Common cleavers		
<i>Galium verum</i>	Lady's bedstraw		Yes - Occasional, Locally Frequent
<i>Glechoma hederacea</i>	Ground ivy		
<i>Heracleum sphondylium</i>	Hogweed		
<i>Holcus lanatus</i>	Yorkshire-fog		
<i>Holcus</i> sp.	Unknown variegated variety	Introduced	
<i>Hypochaeris radicata</i>	Cat's-ear		
<i>Juncus inflexus</i>	hard rush		
<i>Koeleria macrantha</i>	Crested hair-grass		Yes - Rare

<i>Lathyrus pratensis</i>	Meadow vetchling		
<i>Lolium perenne</i>	Perennial rye-grass		
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil		Yes - Occasional
<i>Luzula campestris</i>	Field wood-rush		Yes - Occasional
<i>Mentha aquatica</i>	Water mint		
<i>Origanum vulgare</i>	Wild marjoram		Yes - Rare
<i>Pilosella officinarum</i>	Mouse-ear hawkweed		Yes - Rare, Locally Frequent
<i>Plantago lanceolata</i>	Ribwort plantain		
<i>Plantago major</i>	Greater plantain		
<i>Poa annua</i>	Annual meadow-grass		
<i>Poa pratensis</i>	Smooth meadow-grass		
<i>Poa pratensis</i>	Smooth meadow-grass		
<i>Polygala sp.</i>	A Milkwort		Yes - Rare
<i>Prunus spinosa</i>	Blackthorn		
<i>Ranunculus acris</i>	Meadow buttercup		
<i>Ranunculus bulbosus</i>	Bulbous buttercup		
<i>Ranunculus repens</i>	Creeping buttercup		
<i>Rubus sp.</i>	Bramble		
<i>Rumex acetosa</i>	Common sorrel		
<i>Rumex acetosella</i>	Sheep's sorrel		Yes - Rare
<i>Rumex crispus</i>	Curled dock		
<i>Sambucus nigra</i>	Elder		
<i>Senecio jacobaea</i>	Common ragwort		
<i>Solanum dulcamara</i>	Bittersweet/woody nightshade		
<i>Sonchus asper</i>	Prickly sow-thistle		
<i>Tragopogon pratensis</i>	Goat's-beard		
<i>Trifolium dubium</i>	Lesser trefoil		
<i>Trifolium repens</i>	White clover		
<i>Urtica dioica</i>	Common (stinging) nettle		
<i>Veronica beccabunga</i>	Brooklime		
<i>Veronica chamaedrys</i>	Germander speedwell		
<i>Vicia sativa</i>	Common vetch		
<i>Epilobium hirsutum</i>	Great willowherb		

### 11.7 Secondary Woodland off Tram Hill

Species	Common name	Status
<i>Acer campestre</i>	Field maple	
<i>Acer pseudoplatanus</i>	Sycamore	Introduced/naturalised
<i>Adoxa moschatellina</i>	Moschatel	
<i>Alliaria petiolata</i>	Jack-by-the-hedge	
<i>Anthriscus sylvestris</i>	Cow parsley	
<i>Calystegia sepium</i>	Hedge bindweed	
<i>Carex otrubae</i>	False fox-sedge	
<i>Carex</i> sp.	A sedge	
<i>Carex sylvatica</i>	Wood sedge	
<i>Corylus avellana</i>	Hazel	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Fraxinus excelsior</i>	Ash	
<i>Galium aparine</i>	Common cleavers	
<i>Geranium robertianum</i>	Herb Robert	
<i>Glechoma hederacea</i>	Ground ivy	
<i>Hedera helix</i>	Ivy	
<i>Juncus effusus</i>	Soft rush	
<i>Mercurialis perennis</i>	Dog's mercury	
<i>Moehringia trinervia</i>	Three-nerved sandwort	
<i>Plantago major</i>	Greater plantain	
<i>Poa trivialis</i>	Rough meadow-grass	
<i>Quercus</i> sp.	Oak	
<i>Ranunculus repens</i>	Creeping buttercup	
<i>Rubus</i> sp.	Bramble	
<i>Rumex crispus</i>	Curled dock	
<i>Salix fragilis</i>	Crack willow	
<i>Salix</i> sp.	A willow	
<i>Sambucus nigra</i>	Elder	
<i>Silene dioica</i>	Red campion	
<i>Solanum dulcamara</i>	Bittersweet/woody nightshade	
<i>Stachys sylvatica</i>	Hedge woundwort	
<i>Urtica dioica</i>	Common (stinging) nettle	

- Willow warbler (*Phylloscopus trochilus*) noted singing in hawthorn scrub on North Hills.

## 11.8 Rough Grassland Adjacent to North Hills

Species	Common name	Status
<i>Acer pseudoplatanus</i>	Sycamore	Introduced/ naturalised
<i>Achillea millefolium</i>	Yarrow	
<i>Alliaria petiolata</i>	Jack-by-the-hedge	
<i>Alopecurus pratensis</i>	Meadow fox-tail	
<i>Anthriscus sylvestris</i>	Cow parsley	
<i>Arrhenatherum elatius</i>	False oat-grass	
<i>Artemisia vulgaris</i>	Mugwort	
<i>Cerastium fontanum</i>	Common mouse-ear	
<i>Chamerion angustifolium</i>	Rosebay willowherb	
<i>Cirsium arvense</i>	Creeping thistle	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Epilobium hirsutum</i>	Great willowherb	
<i>Equisetum arvense</i>	Field horsetail	
<i>Festuca rubra</i>	Red fescue	
<i>Fraxinus excelsior</i>	Ash	
<i>Galium aparine</i>	Common cleavers	
<i>Galium verum</i>	Lady's bedstraw	
<i>Glechoma hederacea</i>	Ground ivy	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Juncus inflexus</i>	Hard rush	
<i>Lamium album</i>	White dead-nettle	
<i>Leucanthemum vulgare</i>	Oxeye daisy	
<i>Lonicera periclymenum</i>	Honeysuckle	
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil	
<i>Pentaglottis sempervirens</i>	Green alkanet	
<i>Picris echioides</i>	Bristly ox-tongue	
<i>Plantago lanceolata</i>	Ribwort plantain	
<i>Poa annua</i>	Annual meadow-grass	
<i>Poa pratensis</i>	Smooth meadow-grass	
<i>Poa trivialis</i>	Rough meadow-grass	
<i>Potentilla anserina</i>	Silverweed	
<i>Potentilla reptans</i>	Creeping cinquefoil	



<i>Prunus spinosa</i>	Blackthorn	
<i>Ranunculus bulbosus</i>	Bulbous buttercup	
<i>Rumex acetosa</i>	Common sorrel	
<i>Rumex obtusifolius</i>	Broad-leaved dock	
<i>Salix</i> sp.	A willow	
<i>Sambucus nigra</i>	Elder	
<i>Senecio jacobaea</i>	Common ragwort	
<i>Silene dioica</i>	Red campion	
<i>Taraxacum</i> sp.	A dandelion	
<i>Tragopogon pratensis</i>	Goat's-beard	
<i>Trifolium dubium</i>	Lesser trefoil	
<i>Trifolium repens</i>	Red clover	
<i>Urtica dioica</i>	Common (stinging) nettle	
<i>Veronica chamaedrys</i>	Germander speedwell	
<i>Vicia sativa</i>	Common vetch	

## 11.9 Span Green

Species	Common name	Status
<i>Alopecurus pratensis</i>	Meadow fox-tail	
<i>Arrhenatherum elatius</i>	False oat-grass	
<i>Artemisia vulgaris</i>	Mugwort	
<i>Carex otrubae</i>	False fox-sedge	
<i>Centaurea nigra</i>	Common knapweed	
<i>Cirsium arvense</i>	Creeping thistle	
<i>Corylus avellana</i>	Hazel	
<i>Crataegus monogyna</i>	Hawthorn	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Deschampsia cespitosa</i>	Tufted hair-grass	
<i>Epilobium hirsutum</i>	Great willowherb	
<i>Festuca rubra</i>	Red fescue	
<i>Filipendula ulmaria</i>	Meadowsweet	
<i>Fraxinus excelsior</i>	Ash	
<i>Galium verum</i>	Lady's bedstraw	
<i>Glechoma hederacea</i>	Ground ivy	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Juncus inflexus</i>	Hard rush	
<i>Lathyrus pratensis</i>	Meadow vetchling	
<i>Plantago lanceolata</i>	Ribwort plantain	
<i>Plantago major</i>	Greater plantain	
<i>Poa pratensis</i>	Smooth meadow-grass	
<i>Potentilla anserina</i>	Silverweed	
<i>Potentilla reptans</i>	Creeping cinquefoil	
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus sp.</i>	oak	
<i>Ranunculus repens</i>	Creeping buttercup	
<i>Rubus sp.</i>	Bramble	
<i>Rumex acetosa</i>	Common sorrel	
<i>Rumex crispus</i>	Curled dock	
<i>Salix alba</i>	White willow	
<i>Salix sp.</i>	A willow	
<i>Stachys sylvatica</i>	Hedge woundwort	
<i>Stellaria graminea</i>	Lesser stitchwort	

<i>Symphytum</i> sp.	Comfrey	
<i>Urtica dioica</i>	Common (stinging) nettle	
<i>Vicia sepium</i>	Bush vetch	
<i>Vicia</i> sp.	A vetch	

## 11.10 Pheasant Triangle

<b>Species</b>	<b>Common name</b>
<i>Achillea millefolium</i>	Yarrow
<i>Anthriscus sylvestris</i>	Cow parsley
<i>Bromus hordeaceus</i>	Soft brome
<i>Centaurea nigra</i>	Common knapweed
<i>Cerastium fontanum</i>	Common mouse-ear
<i>Dactylis glomerata</i>	Cock's-foot
<i>Festuca rubra</i>	Red fescue
<i>Galium mollugo</i>	Hedge bedstraw
<i>Heracleum sphondylium</i>	Hogweed
<i>Leucanthemum vulgare</i>	Oxeye daisy
<i>Lolium perenne</i>	Perennial rye-grass
<i>Lotus corniculatus</i>	Common bird's-foot-trefoil
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Poa trivialis</i>	Rough meadow-grass
<i>Rhinanthus minor</i>	Yellow-rattle
<i>Taraxacum</i> sp.	A dandelion
<i>Trifolium dubium</i>	Lesser trefoil
<i>Trifolium pratense</i>	Red clover
<i>Trifolium repens</i>	White clover
<i>Urtica dioica</i>	Common (stinging) nettle
<i>Vicia sativa</i>	Common vetch

### 11.11 Roadside Verges

Species	Common name	Status
<i>Acer pseudoplatanus</i>	Sycamore	Introduced/ naturalised
<i>Alopecurus pratensis</i>	Meadow fox-tail	
<i>Arrhenatherum elatius</i>	False oat-grass	
<i>Carex otrubae</i>	False fox-sedge	
<i>Dactylis glomerata</i>	Cock's-foot	
<i>Epilobium hirsutum</i>	Great willowherb	
<i>Fraxinus excelsior</i>	Ash	
<i>Heracleum sphondylium</i>	Hogweed	
<i>Lathyrus pratensis</i>	Meadow vetchling	
<i>Leucanthemum vulgare</i>	Oxeye daisy	
<i>Plantago lanceolata</i>	Ribwort plantain	
<i>Poa trivialis</i>	Rough meadow-grass	
<i>Potentilla anserina</i>	Silverweed	
<i>Potentilla reptans</i>	Creeping cinquefoil	
<i>Prunus spinosa</i>	Blackthorn	
<i>Quercus sp.</i>	Oak	
<i>Ranunculus repens</i>	Creeping buttercup	
<i>Rosa sp.</i>	A dog rose	
<i>Rumex crispus</i>	Curled dock	
<i>Rumex obtusifolius</i>	Broad-leaved dock	
<i>Sambucus nigra</i>	Elder	
<i>Silene dioica</i>	Red campion	
<i>Stachys sylvatica</i>	Hedge woundwort	
<i>Urtica dioica</i>	Common (stinging) nettle	

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