# **Rusthall Common**

# Five-Year Ecological Management Plan 2024-2028

**Dolphin Ecological Surveys** 



Dolphin Ecological Surveys, Edgedown, Kammond Avenue, Seaford, East Sussex BN25 3JL 01323 304180

info@ecodolphin.co.uk

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Dr Ian Beavis hymenoptera hotspots notes and map

### 1.0 INTRODUCTION

#### 1.1 The Common

Rusthall Common covers 37ha (91 acres) of land at central grid reference TQ564394. It forms part of the Rusthall Common and Tunbridge Wells Common Local Wildlife Site (LWS) and encompasses Rusthall Common Site of Special Scientific Interest (SSSI).

The SSSI was notified in 1992 for its geological interest and described in the citation as "a key site for sandstone weathering features....Rusthall Common is best noted for the spectacular Toad Rock, a classic landform of SE England comprising an isolated block of rock standing on a narrow pedestal formed by periglacial wind erosion."

The freehold of the Common is owned by the Manor of Rusthall but its administration and management is overseen by twelve Commons Conservators. The Conservators are supported by a General Manager/Clerk and a Site Ranger is responsible for carrying out day to day management, working with contractors where necessary.

Important background information about the site, its history, governance, biodiversity, the role and vision of the Commons Conservators and previous management is contained in the Tunbridge Wells and Rusthall Commons Management Plan Update Draft Report (Kent High Weald Partnership 2016) and in the 2023 data review (DES 2023a). Most of that background information is not reproduced in the Ecological Management Plan (EMP) for the sake of brevity.

The definitive source of information on the history and natural history of Tunbridge Wells and Rusthall Commons is the excellent book produced in 2001 by the Tunbridge Wells Museum and Art Gallery (Rowlands, M. L. J. Ed. 2001).

Rusthall Common, along with the larger Tunbridge Wells Common, developed as lowland heathland that would have been maintained by livestock grazing. As grazing gradually diminished, then finally ceased in the 20<sup>th</sup> Century, the vegetation changed as scrub and woodland spread across a formerly open landscape.

The re-introduction of traditional grazing livestock is not considered by the Conservators to be a viable option on the Commons and the management of both sites now depends on mechanical vegetation control.

On Rusthall Common some fragments of vegetation reflect its past as grazing land, in particular the relict areas of unimproved and species-rich grassland and stands of open, heathy woodland. Ponds in an old marl pit are a connection to another traditional land use but undoubtedly the most striking features of the Common are its sandrocks.

There are different types of vegetation and features associated with sandstone outcrops and these, along with the fragments of species-rich and unimproved grassland and ponds, form the core of Rusthall Common's current ecological value. Secondary woodland and mature trees dominate many parts of the Common and also contribute to its rich biodiversity.

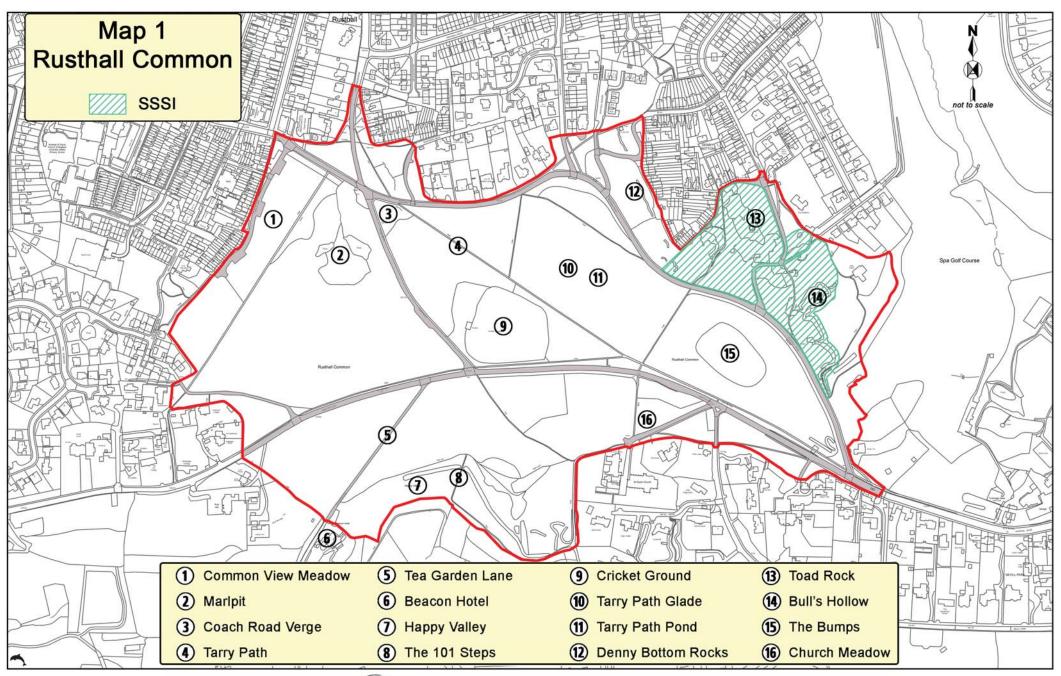
Important species and assemblages present on the Common are discussed more fully in the data review report. They include numerous scarce, declining and UK Biodiversity Action Plan (BAP) Priority Species.

• A rich assemblage of aculeate hymenoptera (ants, bees and wasps) of regional importance (see Appendix for more details of particularly important areas and associated species). The charismatic and declining Long-horned Bee *Eucera longicornis* has been recorded in Church meadow.

- Locally rare, scarce and uncommon plants of high conservation priority habitats include a colony of Royal Fern *Osmundia regalis* and populations of Coralroot *Cardamine bulbifera and* Harebell *Campanula rotundifolia*.
- Protected and declining fauna now confirmed to occur on the Common are:
  - Great Crested Newt Triturus cristatus in the larger Marlpit pond
  - Slow-worm Anguis fragilis and Grass Snake Natrix helvetica in the Marlpit area
  - European Hedgehog Erinaceus europaeus in Common View Meadow
  - Bats; Natterer's *Myosotis nattereri*, Daubenton's *Myosotis daubentonii*, Serotine *Eptesicus serotinus*, Leisler's *Nyctalus leisleri*, Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus* and Brown Long-eared *Plecotus auritus*.

Throughout 2023 the General Manager and Site Ranger have worked hard to increase local awareness and appreciation of the Common's extraordinary biodiversity. More information about its wildlife is becoming available through increased biological recording, for example the recent bat surveys have confirmed there are hotspots for these protected mammals at Bull's Hollow, Happy Valley, the Marlene and Tea Garden Lane.

Many of the named features on the Common are referred to in this document. Their locations are shown on Map 1.



#### 1.2 The Ecological Management Plan (EMP)

In the late 1980s Rusthall and Tunbridge Wells Commons were dominated by storm-damaged woodland. The first modern combined site management plan for the two Commons was prepared in 1991 with subsequent plans in 2005 and 2016/7. Great progress has been made on habitat restoration and positive management for wildlife since the early 1990s by implementing many of the recommendations contained in these plans.

In 2023 the decision was made to prepare a separate Ecological Management Plan (EMP) for each of the Commons to reflect the differences in their characteristics, ecological priorities and management needs. Nevertheless, many elements of the two EMPs apply to both Commons.

The overall objectives of management for biodiversity on Rusthall Common should be:

- To promote and maintain a biodiverse habitat mosaic of structurally complex vegetation.
- To ensure best practice management of sandstone outcrops and associated features
- To meet the resource and habitat requirements of rare, protected and declining species of fauna and flora on the Common.

The main purpose of this five-year EMP is to set out the broad actions needed to meet these objectives. The management recommendations include essential regular and annual tasks as well as larger projects that may extend over a period of years.

Long-term consistency in habitat management is very important but must be combined with the flexibility to respond appropriately to new species data and progressive habitat change. The use of positive and negative indicator species to identify and monitor key habitats is intended as a mechanism to help guide management decisions over the five-year period of the plan. New species data will be captured though the survey and monitoring schedule (Section 3).

Basic management principles to reduce adverse impacts on the Common and its wider environment that should be applied across all areas are:

- Herbicide use should be avoided unless it is essential to conserve biodiversity (for example to control woody invasive species or to prevent stump regrowth on sandrocks).
- Burning vegetation on site should be avoided (unless it is essential to burn small amounts of invasive plant species in situ).
- Natural regeneration of trees, shrubs and other vegetation should be favoured over planting or reseeding. Non-native species should not be planted or sown on the Common.

Rusthall Common is the smaller and somewhat less busy of the two Commons and has a quiet, secluded atmosphere in many places. Nevertheless it is an easily accessible greenspace for local residents and visitors with Toad Rock a focal point.

Providing an opportunity for people to encounter an abundance of wildlife in the varied habitats on the Common is an extremely important part of its management. Inevitably there will be occasions when ecological imperatives and public access requirements do not align perfectly. A flexible, adaptive approach to managing the Common for the benefit of both wildlife and people is crucial. Management activities related to biodiversity that may attract comment or criticism from visitors, especially in high profile areas,

should always be fully advertised and explained in advance via the Commons Facebook page and with onsite information.

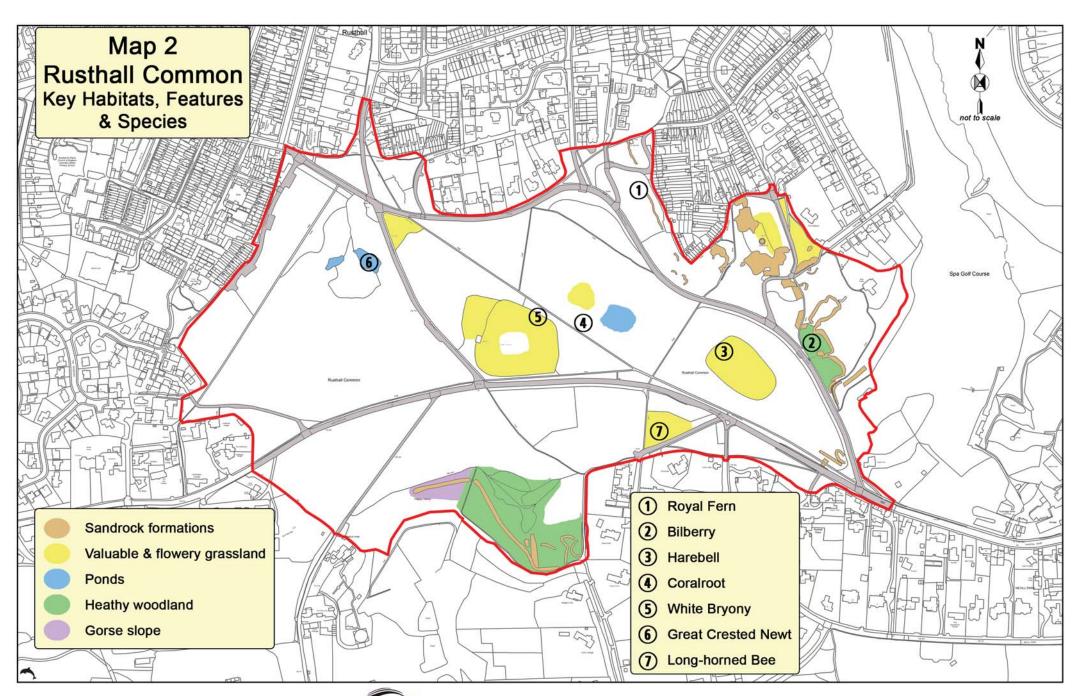
Whilst public access and the associated requirements are very important considerations for the site managers, the management of amenity infrastructure on the Common is not addressed within this EMP.

#### 1.3 Management Priorities

The management priorities that underlie this EMP are:

- To manage sandstone features in accordance with best practice
- To manage all habitats appropriately for important species and species assemblages.
- To maintain and restore open habitats and key features.
- To enhance and strengthen overall habitat connectivity through expanding and linking core areas of key habitats.
- To encourage expansion of important faunal populations and create conditions where native plants can spread by natural colonisation.
- To control and monitor invasive non-native species.
- To conserve and restore historic features and open vistas.
- To increase community engagement and maintain visitor safety.

Map 2 shows the location of key habitats and species on the Common that are the focus of this EMP.



## 2.0 MANAGEMENT RECOMMENDATIONS

#### 2.1 Ash Dieback

A considerable amount of essential tree safety work is underway on Rusthall Common and will be necessary for the duration of this EMP. This is due to the widespread incidence of dead and dying Ash trees affected by dieback disease caused by the fungus *Hymenoscyphus fraxineus*.

Extensive tree felling is necessary primarily for the safety of visitors, neighbours and for road safety around the Common. Nevertheless it presents an opportunity to combine very high priority tree safety work with biodiversity objectives. This has been demonstrated in an area of extensive Ash clearance next to Tea Garden Lane where a new glade and scrapes were created in late 2023. The edges of Tarry Path affected by essential Ash felling have been opened up as ride-edge scallops and bays.



Clearance at Tea Garden Lane before the scrapes were created

Any planned removal of young stands or mature trees of diseased Ash should have the parallel aim of increasing connectivity between open habitats and improving structural complexity in surrounding vegetation. There may also be opportunities to open up historic vistas and possibly views of rock formations during Ash clearance work.

## 2.2 Invasive Non-Native Species (INNS)

In Britain the most problematic invasive non-native species (INNS) are listed on Schedule 9 of the Wildlife and Countryside Act 1981. This legislation was supplemented and updated through Article 3 of The Invasive Alien Species (Enforcement and Permitting) Order 2019 that identifies species of special concern. Full information on INNS including relevant legislation is available at the GB non-native species secretariat (NNSS) <a href="https://www.nonnativespecies.org/">https://www.nonnativespecies.org/</a>

There are known to be invasive flora present on the Common in ponds and woodland areas. Some of the INNS present may pose a direct threat to native species and most are likely to have an adverse impact on the overall biodiversity of the Common.

Control or elimination of INNS populations is often expensive but costs can be reduced by taking action at an early stage rather than allowing their numbers to increase. Management and disposal of INNS must be

carried out with particular care to avoid inadvertently causing them to spread off-site and thereby risk committing an offence.

Mapping where each type of INNS occurs on the Common should be the first step towards developing a control strategy that will prioritise management of the most problematic species first.

The three INNS most relevant to this EMP that are known to occur on Rusthall Common are shown below. All are listed on Schedule 9 of the Wildlife & Countryside Act 1981 and one is a species of special concern.

Table 1. Key Invasive Non-Native Species on the Common

Species	Area/habitat	Comments
Parrot's-feather Myriophyllum aquaticum	Marlpit pond	Species of special concern. Requires control
New Zealand Pigmyweed Crassula helmsii	Marlpit pond	Requires control
Cherry Laurel Prunus laurocerasus	Woodland areas	Control ongoing control.  Needs monitoring as re-growth likely

#### 2.3 Path Network

There is an extensive path network across the Common that includes surfaced paths, public rights of way and informal "desire lines". Most path management is under the control of the Conservators but Kent County Council (KCC) is responsible for some of the surfaced paths.

The 2017 management plan notes that: "Although the primary goals of the Conservators are related to habitat and biodiversity, most of the work undertaken on the Commons is to maintain and improve public access and the public amenity value of the Commons."

The way that path edges are managed is highly visible and sometimes very important to visitors. While safe access along paths on the Common is imperative, the path network also has an extremely important ecological function. A sensitive and nuanced management approach to managing paths can have significant biodiversity benefits.

Paths provide good connectivity for wildlife between different habitats on the Common, for example linking open areas that are separated by blocks of woodland. Linear features such as path edges are also very important feeding and breeding areas for a variety of fauna. Flower-rich and scrubby vegetation alongside paths can attract foraging insects and are favoured areas for male bees to patrol or lek (breeding display behaviour) whilst woodland rides can provide prey-rich hunting grounds for bats.

Worn, sandy paths are present on the Common, especially in the vicinity of sandrocks. These linear, bare sand features can provide valuable nest sites for ground-nesting bees, despite the high levels of disturbance, and generally require little in the way of management.



Bare, sandy ground and path edges

Vegetation along path edges will require different management depending on factors such as their location, the surrounding vegetation and amount of public use. In some places path edges may need to be cut regularly but elsewhere a less frequent regime of cut and collect is more appropriate and beneficial.

Near pavements and on main footpaths it can be valuable to maintain strips of short vegetation (5-10cm height) alongside paths to "frame" taller vegetation, making it clear that wildflower areas are being allowed to grow taller by design not through neglect. There are a number of such path edges around the northern side of Rusthall Common.

Elsewhere in woodland and open areas of the Common a high intensity of path edge mowing is neither necessary nor ecologically desirable. Instead vegetation alongside paths should be cut back only where needed to maintain an edge strip of approximately 10cm height. Within this shorter vegetation zone any encroaching Bramble, Bracken or scrub can be selectively removed. This will maintain good access for people whilst also preserving valuable and well-connected habitat for the fauna and flora that favour shorter swards.



Bracken alongside a pavement

#### 2.4 Sandrocks

#### 2.4.1 Key Factors

The rock formations and their associated habitats in the east and south of Rusthall Common are its most distinctive and uncommon features. Most of the eastern rocks fall within the Rusthall Common geological SSSI but the habitats around the undesignated Happy Valley Rocks in the south and the old quarry face on Apsley Street are equally important in ecological terms.

The Rocks Management Plan (Barber, J. & Preston, R. 2016) was prepared by members of the Freehold Tenants Association. It categorised the many named and unnamed rocks on the Common into three groups and set out broad measures of their prominence, status and priority. This useful grouping of the rocks is followed in the EMP and is summarised in Table 2.

Table 2. Rusthall Common Rock Groupings (from Rocks Management Plan 2016)

Rock Group	Component Rocks/Area	Status
Toad Rock and surrounds	Toad Rock, Bishops Rock, Dog's Head, Fox's Hole and surrounds	SSSI
	Table, Water Rock, Elephant and surrounds	SSSI
	Loaf, Ship, Little Toad	SSSI (excluding Loaf)
	Between Apsley Street and Rusthall Road	Part of Footsteps in SSSI
	Parson's Nose and surrounds near Rusthall Park	SSSI
Bull's Hollow	The Quarry	SSSI
	The Lion and path from Rusthall Rd to Harmony Street	SSSI
	The Hollow (between the Parson's Nose, The Lion and The Quarry)	SSSI
	Path from Rusthall Rd to The Quarry	SSSI
Happy Valley	West of the 101 steps	
	Just east of the 101 steps	
	Happy Valley Rocks north-west of the Midway	
	Paths in south-east corner of Happy Valley	

#### 2.4.2 Management of Sandrocks

The recommendations in the 2016 management plan to keep the rocks visible and in good condition still provide a sound basis for vegetation management in their vicinity.

Since 2016 a considerable amount of the encroaching vegetation has been cleared from some of the rocks in line with the plan's prioritisation according to the prominence and status of rock groups. Views of many rocks have been successfully restored and maintained. A local climbing group has assisted the Ranger with vegetation clearance on some of the more inaccessible rocks, for instance in Happy Valley.

In view of the progress that has been made since the Rocks Management Plan was prepared in 2016, it would be valuable to review the status of rocks (how overgrown they are) and re-assess the prioritisation of work in each area.

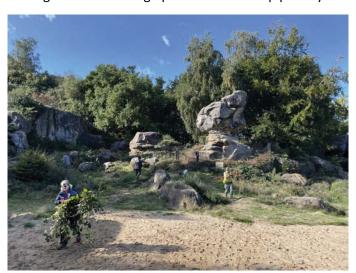
A photographic audit of the condition of the rocks was started in 2016 and should be continued as part of the site monitoring schedule.

- Periodic strimming and removal of small or young woody growth will continue to form the core routine management activities around all the largest and most visible rock formations.
- Wherever possible the use of herbicide should be avoided but where Bramble, scrub or young trees are removed then spot treatment of cut stumps with an appropriate herbicide is acceptable to prevent re-growth.
- Opening up and maintaining views of the rocks by cutting back or coppicing any surrounding younger growth of trees and shrubs should be continued when the opportunity arises. Views of the rocks from Upper Street and Apsley Street could be much enhanced in this way.
- In general where mature or significant trees have become established on the rocks these should be retained if it is safe to do so.
- Safety felling of diseased Ash may have an incidental benefit of improving views of some rocks.

The three rock groupings on the Common are strongly associated with some of its most ecologically important features and habitats. Management of vegetation that is closely associated with the rocks is detailed below.

#### **Toad Rock and surrounds**

• Toad Rock is the most spectacular and best known rock on Rusthall Common and is a central feature of the SSSI. Good management of this high profile area is a top priority.



Volunteers working at Toad Rock (photo credit Dan Colborne)

Young woody species should be removed before they become established but the existing Gorse is
important for aculeate hymenoptera (see Appendix). Gorse shrubs need to be managed on rotation
to maintain a balance between providing useful habitat and maintaining visibility of the rocks.
 Vegetation around the rocks needs to be cut on rotation although grass and herbaceous plants are
largely kept under control by the high levels of visitor interaction with the rocks.

The large sandpit between Toad Rock and Harmony Street is also very important for lekking and breeding aculeates. The grassland around the sandpit has fragments of short, acid sward which contains several positive indicator plant species. The sandpit and short sward are largely maintained by human disturbance. The combination of bare sand, acid grassland and Gorse scrub around the rocks makes this an area of high ecological value.



Sandpit at Toad Rock (photo credit Dan Colborne)

Towards Upper Street and Apsley Street the rocks still support considerable amounts of vegetation
and there are good opportunities to increase their visibility by selective coppicing, removal of
younger trees and shrubs along with control of Bramble and herbaceous vegetation. Access
constraints may dictate how much work can be carried out on these outcrops.

#### **Bull's Hollow**

- The rock exposures in Bull's Hollow all need some routine, periodic vegetation management to maintain their visibility but there are access constraints.
- There is a large stand of Bilberry in the open, heathy woodland on the top of the steep sandstone exposures of Bull's Hollow (see Map 2) at its only known location on the Common.



Bilberry under Bracken in heathy woodland

This low-growing deciduous shrub is in danger of becoming over-shaded by trees and dense Bracken (see photo). It is also under threat from erosion and trampling as numerous small paths run though this part of the woodland. A programme of selective felling and coppicing of Holly and tree saplings is needed to open the glade and restore the dappled shade under which Bilberry thrives. Careful control of Bracken fronds by pulling or cutting during the growing season and targeted raking to reduce the accumulated dead litter would also be beneficial.

 At the base of the Bull's Hollow quarry there is level ground with wet grassland and several shallow, seasonal ponds and flushes. This areas is ideal for annual cut and collect management with taller vegetation around the margins cut on rotation to maintain structural complexity.



View into Bull's Hollow

#### **Happy Valley**

• Happy Valley occupies a south-facing slope in the south of the Common with extensive views across the Weald and striking rock exposures including the Cheesewring.



View from the top of the Gorse slope in Happy Valley

This is a sizeable area that includes a mosaic of open, heathy woodland, Gorse, Ling and Bracken with patches of bare sand along paths and some stands of tall herbs. The diverse conditions provide rich resources for a range of invertebrates and other fauna.

- West of the 101 steps there is a steep slope dominated by dense Gorse with Ling and patches of bare sand along the path edges. This area of open, heathy vegetation and rock outcrops is a hymenoptera hotspot (see Appendix). Rotational cutting to create and maintain a diverse age structure and vegetation complexity is needed in this part of Happy Valley. Periodic clearance and small scale disturbance along the path edges will ensure a supply of bare, sandy nest sites for bees and wasps.
- East of the 101 steps much of Happy Valley has open, heathy woodland with a sparse shrub layer and a field layer dominated by dense Bracken and Bramble. Management of these open woodland areas needs a light touch to maintain their distinct character and ecological value (see 2.7).

#### 2.5 Grassland

#### 2.5.1 Key Factors

- Rusthall Common has some good areas of grassland habitat that include relict acid and neutral
  grassland swards of botanical interest and conservation importance. Some of the largely
  unimproved swards may support grassland fungi such as Waxcaps. The best areas are:
  - Acid grassland fragments around Toad Rock and on a bank to the east of Harmony Street.
  - The Bumps Meadow
  - Church Meadow
  - The Cricket Ground
  - Tarry Path glade
- Fragments of ecologically important acid and neutral grassland are high priority habitats and need careful and consistent management. The characteristic plants depend on low soil nutrient levels which means that cut material must be collected and removed after mowing.
- Semi-improved swards with a mixture of tussocky grasses and widespread wildflowers are also present on the Common, for example at Common View meadow and in the Marlpit area.
- The flowery grassland habitats provide food resources and foraging habitat for a range of invertebrates, including the special bees and wasps of the Common. They may also be important habitat for other fauna including reptiles, amphibians and small mammals.
- There are a number of grassy road verges around the Common, few of which have swards of botanical interest, although the corner of Coach Road and Rusthall Road is moderately herb-rich. Most grassy verges have the potential to be managed in a way that enhances their value to wildlife.



The verge where Coach Road meets Rusthall Road

- Some high value areas of grassland have deteriorated or been lost since the last survey in 2005, largely through insufficient management but also through disturbance and re-seeding. Restoration of some areas may be possible through consistent cut and collect management. This will reduce the accumulated thatch that otherwise smothers new growth and increases soil nutrient levels as it rots. Removal of scrub and tree seedlings that have established in the swards is also essential.
- Bracken, Bramble and woody plants have encroached into most areas of grassland on the Common.
- Bramble is a very useful plant for a range of wildlife. It provides flowers rich in pollen and nectar, fruit in autumn, nesting sites and protection from predators amongst its prickly thickets. However, in many areas on the Common its encroachment into open grassland is having a detrimental effect.
- Preventing woody species from spreading into grassland areas is difficult without livestock grazing.
   Some manual removal of saplings and scrub is usually needed in addition to cut and collect mowing.

#### 2.5.2 Management of Grassland

Acid and neutral grassland is an important ecological component of Rusthall Common. Active management is needed to keep this habitat open and prevent natural succession to scrub and woodland. In the absence of grazing, the best alternative is to manage grassland areas by rotational cut and collect. This should aim to maintain a diverse vegetation mosaic and conserve the most botanically valuable acid and neutral swards.

At present some areas of grassland are mown by contractors using either a collecting flail mower or a "Flail-bot" mower on less accessible terrain. The Ranger manages other grassland areas including the most sensitive swards and many path edges. These areas are recorded by the Ranger on a mowing schedule map.

The different types of grassland found on the Common require different mowing regimes. Flexibility in the timing and frequency of mowing is important because variations in seasonal factors can have a big impact on vegetation growth rates.

Rotational management across grassland areas on the Common is very important to create structural diversity in the vegetation. Allowing some areas of taller sward to persist when other parts are cut ensures there are continuous floral food resources for insects as well as providing refuge areas for other fauna.

There are some general grassland management principles that apply to most areas of grassland on the Common:

- **Cut and collect mowing.** Much of the grassland on the Common should continue to be managed on an annual cut and collect regime to promote more visible wildflowers and create better grassland habitat for wildlife. Mowing in late summer/early autumn allows most plants to flower and a proportion to set seed so should be the default timing.
- Botanically diverse swards should be prioritised for management by cut and collect in August/early September. These areas are fragile and vulnerable to deterioration if management is too light. A second cut in spring (April) may be needed if late season growth is strong. This will help to ensure that coarse grasses do not dominate the swards but must be timed carefully to avoid loss of earlyflowering wildflowers.
- Path/pavement edges and amenity areas. Areas of low botanical interest can be mown regularly to
  maintain a sward height of approximately 10cm from April to September/October. Cut material
  should be removed if possible.
- Bays and sinuous edges should be cut further into woodland edges around grassy glades such as the Marlpit and Tarry Path glade to increase the length of tall herb and scrubby edge vegetation without reducing the area of open habitat.



Example of scrubby edge habitat on The Bumps

- Edges. Grassland edge zones can be cut on rotation to create and maintain a structurally diverse
  edge habitat of tall herbaceous vegetation that grades into scrub or woodland. Leaving some
  vegetation uncut each year around the edge of grassland areas will provide valuable over-wintering
  habitat for invertebrates.
- **Woody species.** Reactive control of encroaching Bracken, Bramble and other woody species must be ongoing to maintain areas of diverse grassland.
- Bracken can be pulled or cut by hand, scythed or cut with a brush-cutter to reduce its vigour. Ideally this should take place twice per year in the growing season; in mid-June then again about 6 weeks later in late July to early August. Cutting Bracken at least 15-20cm above ground level will help avoid harming fauna and lower growing plants. Bracken control is particularly important at The Bumps Meadow (see below).

• Small tree saplings and Bramble need to be removed from grassland areas by hand or using a treepopper. Young Bramble plants, should be removed entirely (including roots) from the most diverse swards whenever possible. This may not be feasible with larger plants without causing too much soil disturbance.

The most valuable areas of unimproved and flowery grassland (shown on Map 2) need particularly careful management to conserve and enhance their botanical interest. The best flower-rich neutral to acid swards, such as those at the Bumps and Church Meadow, should be cut annually in late summer and the cuttings removed. A second, early season cut and collect may be necessary in some years to reduce biomass and maintain low soil fertility but is a matter of judgement depending on autumn/winter growth rates. The shortest acid swards found near Toad Rock and on the cricket pitch are maintained by tramping and frequent mowing respectively.

• The Bumps Meadow is effectively a large woodland glade crossed by several worn paths. The largely unimproved sward is dominated by fine-leaved grasses but there are some re-sown patches and localised disturbance. It supports a population of Harebell as well as several positive indicator species such as Pignut, Heath-grass, Tormentil and Heath Bedstraw.



View of The Bumps Meadow

This grassland should be mown slightly later than Church Meadow so that its Harebells can flower and set seed. The sward is diverse in places but appears to be deteriorating and would benefit from a reduction in thatch, removal of woody saplings and control of encroaching Bracken and Bramble on the edges. The scrubby edge habitats are generally diverse and dense but sections will need to be cut back periodically on rotation to maintain the extent of open grassland. The large Oak that overhangs the southern side of the Bumps could be cut back to reduce shading of the grassland. One small area of sward had been damaged by a fire in 2023.

 Church Meadow is an area of neutral grassland surrounded by trees and woodland with a large population of Common Spotted-orchid in a sward of fine-leaved grasses and frequent Red Clover, Common Sorrel and Meadow Buttercup. It also has flower-rich scrubby margins. The abundant sources of nectar and pollen have attracted Long-horned Bees to this meadow.



Orchid-rich sward in Church Meadow

An occasional cut and collect in spring when conditions are suitable may well benefit this meadow but it would need to be early enough to avoid an impact on the display of orchid flowers. Church Meadow is quite shaded by mature trees and suffers from an abundance of woody seedlings in the sward. Cutting back some of the overhanging tree branches would reduce shading and leaf litter input whilst coppicing the large Sycamore and selectively felling young Oak alongside the surfaced path would be very beneficial to open up the western edge (and clear trees from the power line). If any of the mature trees along the approach road to St Paul's church on the southern edge of the meadow need to be felled for safety reasons, this could greatly increase light levels, enhance views of the meadow and benefit its biodiversity.



Shading from trees on the west side of the path could be reduced

• Near Toad Rock the short, acid sward containing Sheep's Sorrel, Early Hair-grass and Common Cat's-ear at the foot of Toad Rock grades into re-sown areas currently dominated by patches of Perennial Rye-grass. The nutrient poor, sandy soil has ensured that fine-leaved native grasses appear to survive better than the sown amenity species. In future, if sward erosion is considered to be at an unacceptable level, only appropriate native grass species (such as Red Fescue or Common Bent) should be sown. On the east side of Harmony Street there is a further area of acid grassland, sand and bare rock on a small bank with some encroaching Bracken and woody seedlings. Annual cut and

collect is all that is needed for the acid grass fragments but the lush, re-sown areas may need more frequent cutting for amenity purposes.



Acid grassland bank east of Harmony Street

• The Cricket Ground is managed by the cricket club by frequent mowing on the pitch to maintain a very short, tight sward. This is also is ideal for the low-growing plants in this area of largely unimproved grassland with locally abundant Heath Bedstraw and Common Dog-violet. This special vegetation could easily be damaged or lost if fertilizer or herbicide are applied and the cricket club should be made aware of this risk. Grassland in the west and north of the cricket ground, outside the playing area, is also kept short but the sward in these zones contains wildflowers such as Common Knapweed that would benefit from less intense management.



Mown sward west of the cricket ground

Ideally these areas in the north and west of the cricket ground should be mown only once or twice per year so that taller, flowery grassland can develop alongside the diverse scrubby edges. Reduced mowing on the edges of the cricket ground combined with the existing dense, scrubby margins would create valuable ecotone habitat of high wildlife value. Further botanical survey of the cricket pitch and adjoining grassland is recommended, in particular because this is an historic site for Chamomile, which could possibly be extant and over-looked in the short sward.



Scrub edge with scope to widen unmown margin

• Tarry Path glade is a small, relict area of acid grassland on a hillock within woodland near the Tarry Path pond and steps. The fine, grassy sward with abundant Pignut, Common Sorrel and Bluebell requires annual cut and collect. Scattered Gorse and Hawthorn scrub provide a useful source of pollen and nectar in this sunny and sheltered glade but young Oak saplings should be removed and encroaching Bracken and Bramble will need periodic control to maintain structurally complex and diverse edges. There is scope to extend this glade.



Tarry Path glade

• Common View Meadow has deteriorated since the 2005 survey. Large areas appear to have been re-seeded, tussocky grasses are widespread and only small fragments of moderately flowery sward remain along with a few old anthills. The woodland edge habitat is good and a scrub/grassland mosaic in the south is valuable habitat for fauna. However, trees and scrub have spread into formerly open grassland and large annual bonfires have left a sizeable area of compacted bare ground, contaminated with fragments of metal, glass and other materials.



Common View Meadow showing tussocky sward and bonfire area

Common View Meadow is a high profile part of the Common and decisions on its management need to balance its amenity value with its wildlife potential. With community support and engagement it could be an excellent site for a major habitat restoration project to restore a flower-rich meadow, re-instate a lost pond and remove non-native plant species. Contaminated soil and possibly topsoil would need to be removed to create suitable conditions for flowery grassland to return but this could be combined with pond restoration.

A new mowing contract for the Common is due to be arranged by April 2024. This presents a good opportunity to review whether increased in-house capacity would allow more precision and flexibility in grassland management, especially in areas with high levels of biodiversity or sensitive species, in line with these recommendations. Alternatively a more complex mowing contract is likely to be needed to ensure the valuable grassland areas do not deteriorate.

Consideration should be given acquiring equipment such as a pedestrian-operated flail with the capacity to collect cuttings. This would allow more of the grassland management to be carried out by the Ranger, giving greater flexibility to respond to annual seasonal variation and to create enhanced edge zones by rotational management.

#### 2.5.3 Road Verges

Many of the road verges within and around Rusthall Common support grassland vegetation, sometimes as very narrow strips but also some larger blocks of grassland between minor roads.

Grassy road verges may need to be mown regularly for safety and access purposes but where this is not essential they should be included in the Common's annual grassland management schedule. Wherever possible cut material should be collected and not allowed to lie in situ where it will form a dense thatch that smothers new growth and enriches the soil as it rots.

None of the verges on the Common appear to support unimproved swards but a triangular area at the junction of Coach Road and Rusthall Road has a flower-rich sward that would certainly benefit from annual cut and collect management.

There are several small blocks of grassland/road verges on the north side of Rusthall Road, all of which could be managed by annual cut and collect management provided pavement and path edges are kept short (see section 2.3).

Elsewhere, such as along Langton Road and Rusthall Road, many of the verges adjoin woodland and tend to support tall herbs such as Hogweed, Bracken and Bramble with generally coarse, tussocky grasses. Management of these woodland edge verges woodland should aim to create graded vegetation heights and dense ecotone habitat by rotational cutting.



Graded vegetation on Rusthall Road verge

#### 2.6 Ponds

#### 2.6.1 Key Factors

- Tarry Path Pond is the largest pond on the Common.
- The old Marlpit area contains one large pond with several smaller ponds and scrapes.
- Small seasonal ponds and flushes are present in Bull's Hollow.
- An annual audit of pond condition has been carried out since 2017.
- The ponds provide excellent habitat for a variety of wildlife with potential to support protected and declining amphibian populations.
- Great Crested Newt was confirmed as present in the largest Marlpit pond in 2023.
- INNS are currently known from the Marlpit ponds but could easily spread to other ponds. Monitoring for INNS is important so that early action can be taken to prevent worse infestations.

#### 2.6.2 Routine Management of Ponds

The ponds all require routine, rotational clearance of aquatic and bankside vegetation to maintain a balance of open, sunny areas and more shaded edges where the water temperature will remain cooler.

- The annual pond condition audit is a good mechanism to identify where clearance is needed each year and should be continued.
- Rotational management of vegetation surrounding the Marlpit ponds should aim to create and maintain open glades with dense, graded edge zones (ecotones). Diverse ecotones are valuable as prey-rich habitat for fauna, such as foraging amphibians and hunting dragonflies, as well as refuges

in which to hibernate or evade predators. Small habitat piles are particularly useful on the edge of glades around ponds.



Vegetation in the Marlpit area between ponds

- **De-silting** is occasionally carried out to retain the existing ponds. This should only be considered on the Common when it is judged essential using information from the annual audits. Best practice is to only de-silt part of the pond and to pile spoil alongside the pond so that aquatic fauna can return to the water.
- **Tarry Path Pond** is quite shaded and occasional work to thin and coppice trees and shrubs around the pond will help to ensure enough light reaches the water.
- **INNS** at the larger Marlpit Pond (Parrot's-feather and New Zealand Pigmyweed) require ongoing control work following best practice guidance (<a href="https://www.nonnativespecies.org/local-action-groups-lags/rapid-life-project/toolkits/#management">https://www.nonnativespecies.org/local-action-groups-lags/rapid-life-project/toolkits/#management</a>) Disposal of plant fragments can be problematic as great care must be taken to ensure they do not spread further.

#### 2.6.3 Ghost Ponds

Increasing the number of ponds on the Common would benefit the population of Great Crested Newts. A "ghost pond" project to find and restore lost historic ponds that are marked on old maps should be considered on Rusthall Common (along with Tunbridge Wells Common).

Re-instating lost ponds on historic sites can be far more successful than digging new ponds where none previously existed. Not only is there a better chance that the pond will hold water when careful excavation can restore the original base, but if old silt layers can be identified and retained around the margins they are likely to hold a rich seed bank of potential plant colonists for the pond.

On the Common View meadow there is one such old pond that is currently very overgrown but which could be restored, ideally as part of a wider biodiversity enhancement project.

#### 2.7 Woodland

#### 2.7.1 Key Factors

- Woodland on the Common includes much dense, even-aged secondary growth with locally frequent
  Ash on formerly open habitats. There are also areas of more open, heathy woodland of Oak,
  Rowan, Birch, Yew and Holly typically with mature canopy trees and a locally sparse shrub layer.
- Targeted control of Cherry Laurel and Rhododendron by volunteers and the Ranger has significantly reduced the extent of these invasive shrubs in woodland areas over recent years but needs to continue.
- Ash dieback is widespread across the Common (see 2.1). Essential safety felling in 2023 has allowed rides to be widened and new glades to be created along Tarry Path, Tea Garden Lane and on the path between the Beacon Hotel and Langton Road.
- Woodland rides, glades and edge habitats are hotspots for biodiversity. Tall herb vegetation in edge habitats and along woodland rides can be important sources of nectar and pollen for insects.
- Dense scrub and Bramble alongside rides and in glades can provide food, nesting sites, shelter and foraging habitat for a wide range of fauna from bats, small mammals and birds to reptiles and invertebrates.
- Bracken is locally abundant in the heathy woodland areas. Very dense stands with thick layers of dead fronds can suppress other ground flora.
- Historic vistas from the Common and views of the rock formations have gradually been obscured by tree growth. There is good potential to restore historic vistas and open up new views by carefully planned woodland management.

#### 2.7.2 Management of Woodland

Woodland management on the Common is carried out either by contractors or the Ranger (with or without volunteers) depending on the scale of each task. Timber and brash from woodland management should not be burnt but instead either stacked as habitat piles, used for other projects such as dead-hedging or stakes, sold or chipped. Chipped material can be used for short-term consolidation of muddy paths.

The overall aim of woodland management on the Common should be to promote structurally complex and diverse woodland with dense, scrubby ecotones where woodland meets open habitats. These objectives can be met by thinning, coppicing, INNS control and, most importantly, management of rides and glades.

At times it will be possible to combine biodiversity objectives with opportunities to open up historic vistas and views of the sandrocks during woodland management work. The decision on whether to do so should rely on the judgement of the Ranger.

Management work to increase the amount of diverse and structurally complex woodland edge vegetation will improve connectivity between the fragments of open grassland habitat on the Common.

Paths in heathy woodland on the most sandy soils in the south and east of the Common can support vegetation such as Ling, Gorse and Tormentil combined with patches of bare sand. Bracken tends to be most frequent in these heathy woodland areas, especially in Happy Valley and Bull's Hollow. Targeted control of

dense stands may be needed if they threaten to suppress valuable ground flora, most notably the Bilberry patch in Bull's Hollow (see 2.4.2).

Management of woodland rides and glades on the Common is very important, not just for biodiversity but also so that visitors can feel more safe in wooded areas.



Tarry Path showing scrubby edges

- **Thinning.** Areas of woodland with a high proportion of dense even-aged Holly and/or Sycamore should be prioritised for thinning. This will open up the canopy and promote a better developed and more diverse shrub layer as well as enhancing growth of the retained canopy trees.
- Coppicing. Coppicing may also be appropriate to increase structural complexity to woodland areas
  where there are suitable species for example Hazel, Birch, Ash and Sycamore. Creating diverse, wellstructured woodland and mixed, dense scrub habitats with an abundance of food sources is
  valuable to a range of fauna.
- **INNS control.** The amount of Cherry Laurel and Rhododendron in woodland areas has been greatly reduced by cutting and stump treatment to prevent re-growth over recent years. Any remaining large shrubs should be removed and all areas monitored so that re-growth of these species can be treated.
- Bracken control. In Bull's Hollow a small area of Bracken should be managed in the Bilberry patch by cutting or pulling the fronds twice per year, six weeks apart, during the growing season to weaken the plants. Cut fronds should be removed and stacked in areas where ground flora is sparse or on other stands of Bracken. In Happy Valley the extensive area of Bracken on slopes to the east of the 101 steps has been cut in its entirety every year to keep views of the rock formation open. This may be excessive and a trial of rotational cutting approximately 30% of the slope each year to enhance structural complexity in the vegetation could be considered.
- Ride and Glade enhancement. Woodland ride edges should be widened and scalloped wherever possible to increase light levels and open up better sight-lines. This should be combined with creating a series of new, linked glades in the most uniform blocks of woodland in the west of the Common and to the north of Tarry Path.
- Ride vegetation should be managed as necessary by cutting on rotation to create graded edges where relatively short margins (c.15cm) adjoin taller herbs and low scrub next to the woodland

edge. The frequency of ride edge management will depend on soils and seasonal growth rates but it is important that vegetation is cut in sections on rotation to create varied conditions along the length of each ride.

• Coralroot. There is a sizeable population of Coralroot in a damp wooded hollow and extending alongside steps near Tarry Path (see Map 2). In Wealden woodlands Coralroot tends to thrive in areas of dappled shade without too much competition from other field layer vegetation. Meticulous annual monitoring counts since 2017 suggests that despite some annual fluctuations in the number of plants, the population of Coralroot is healthy and robust. Whilst some plants have been lost to trampling and local increases in the amounts of grass, new plants have appeared elsewhere. It appears that habitat conditions remain broadly suitable and in the short-term no targeted management is needed. Any significant or prolonged decline in the Coralroot population should trigger a review of this approach. The detailed records collected by volunteers over several years illustrate the immense value of rare plant monitoring data to inform habitat management.

#### 2.8 Special Trees

#### 2.8.1 Key Factors

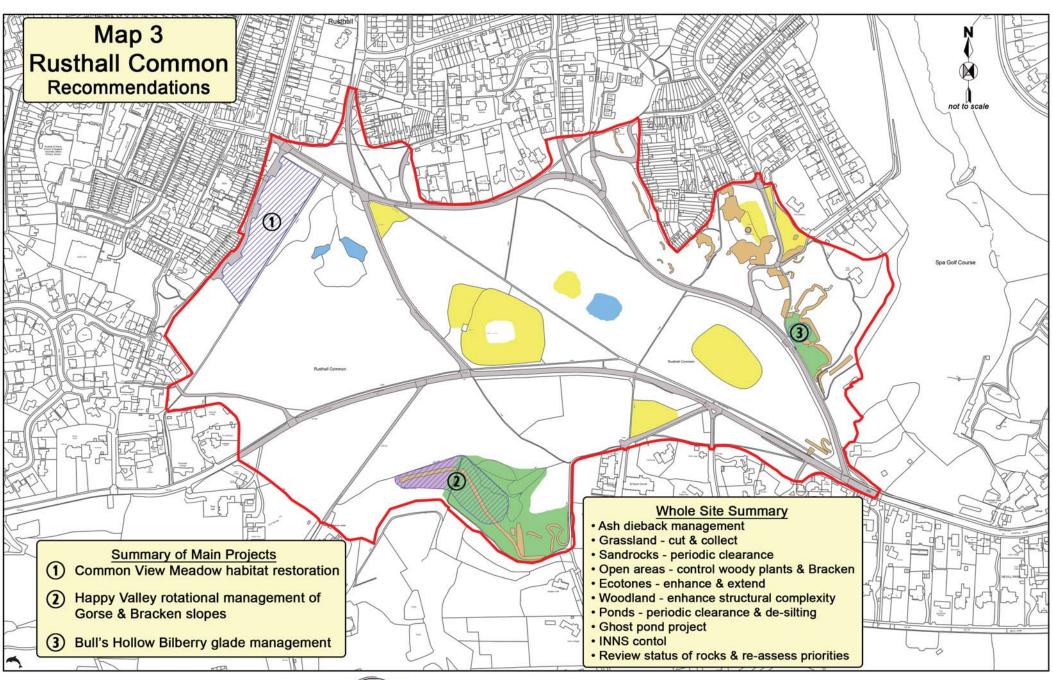
- Trees of special interest on the Common include large, mature specimens as well as trees that provide important habitat and those with cultural significance.
- Important features for wildlife in mature and veteran tree include rot holes, dead wood in the crown, dead branches, bark flaps and crevices. These trees can support saproxylic (deadwood) invertebrates, fungi, hole-nesting birds, roosting bats, mosses and lichens.
- The terms "ancient" and "veteran" are sometimes used interchangeably for very old trees but they have quite specific meanings. An ancient tree is one that has passed beyond maturity and is old, or aged, compared with other trees of the same species. A veteran tree has habitat features such as wounds or decay but may be of any age.
- The Ancient Tree Forum provides excellent advice and guidance on special trees, their value to wildlife and how to manage them. These resources are available at <a href="https://www.ancienttreeforum.org.uk/resources/">https://www.ancienttreeforum.org.uk/resources/</a>
- A comprehensive survey and map of trees on the Common was produced by the Freehold Tenants in 2016 to support the 2017 management plan.

#### 2.8.2 Management of Special Trees

Mature and important trees should be inspected annually to ensure they are in a safe condition and to assess their management needs.

- For the benefit of wildlife as much deadwood as possible should be retained in the crown of mature and veteran trees. If branches fall they should be retained nearby not cleared away.
- If large-crowned or dead trees are considered to be in a dangerous condition they should be reduced and retained as monoliths rather than felled wherever possible.
- In some cases halo felling around mature trees should be considered, especially where the shrub layer is crowding the tree and is dominated by Holly.

The Common is cherished by many people and the desire to commemorate loved ones is understandable but planting memorial trees should be discouraged. These are often ornamental species which may have few wildlife benefits, they may not survive without sufficient care and they may inadvertently be planted on diverse grassland swards. As an alternative to planting memorial trees the Conservators could consider allowing additional memorial benches on the Common, perhaps crafted with large timber from woodland management work.



## 3.0 SURVEY & MONITORING

Making appropriate management decision for biodiversity relies on having accurate information about the species and habitats present on the Common. This includes the extent of important habitats, their degree of connectivity, the distribution and population size of rare and key indicator species. The purposes of biological survey and monitoring are to collect baseline information, to document how wildlife populations change over time and to help assess the impacts of habitat management.

Preliminary recommendations for survey and monitoring activities on the Common were set out in the data review in early 2023 (DES 2023a). Very good progress has already been made on several of these suggestions whilst new biological records have already made some of the recommendations redundant.

There were sightings of Hedgehogs on the Common in 2023 so surveys to detect the presence of this declining mammal using footprint tunnels are no longer necessary. However, this method could still be used in future to find out more about their distribution across the Common.

A Hazel Dormouse was recorded on Tunbridge Wells Common in 2023. Erecting dormouse nest boxes nearby is now under consideration. On Rusthall Common footprint tunnels or nest boxes could be deployed in suitable habitat in future, depending on the results at Tunbridge Wells Common.

The Kent Botanical Recording Group (KBRG) has generously supplied additional information on rare plants on the Common.

The amount of volunteer input to biological recording on the Common in 2023 has been outstanding and is a tribute to the efforts of the General Manager and Site Ranger to renew community engagement and promote the biodiversity value of the Common.

Table 3. Survey & Monitoring Progress in 2023

RECOMMENDATION	PROGRESS
Lower plants survey on sandstone outcrops	Complete
Identify and map key areas for bee & wasp assemblages	Complete
Map location and extent of INNS	Ongoing
Survey & mapping of scarce habitat indicator species	Preliminary work complete
Update 1991/2003/2016 habitat maps	Approximate extent of key habitats mapped. Repeat of 2003 survey by the same botanist scheduled for 2024
Hedgehog footprint tunnel survey	Hedgehog presence confirmed
Hazel Dormouse footprint tunnel survey	Hazel Dormouse presence confirmed on Tunbridge Wells Common. Nest boxes being considered
Encourage visitors to submit wildlife sightings via the iRecord and iNaturalist apps/websites	Very successful use of social media. Ongoing project to collect and collate data
Breeding bird survey	Not yet started on Rusthall Common
Butterfly recording transects	Not yet started on Rusthall Common
Reptile survey	Started in 2023 by Ranger with volunteers - ongoing

Suggestions for a range of survey and monitoring activities over the next 5 years are included in the Action Plan. The actions that will help to measure progress towards biodiversity and management objectives for the Common should be prioritised.

- Data management system. At present the large amount of ecological and other information about the Common that exists is not particularly easy to access. A high priority should be to commission an integrated GIS mapping system and database. This should be designed to store old and new species data, information on habitat distribution, connectivity proposals and management records such as mowing zones, rotations and the timing of work that has been carried out. Setting up an appropriate data storage system for the Common will need support from a company or body with suitable expertise, for example the Kent High Weald Partnership. The possibility of funding this via grant aid could be explored.
- Photographic monitoring. This is an inexpensive and highly valuable way to monitor changes in vegetation and habitats over time. Fixed-point photographs of key habitats, ecotones and the rock formations are all recommended as priority actions. Aerial photos will allow digital mapping of broad vegetation types and the extent of open ground on the Common.
- Indicator species. A bespoke set of positive and negative plant species for the Common has been identified (DES 2023b). The presence and abundance of these species should be used to identify areas suitable for restoration of key grassland and heathland vegetation. They will also contribute to monitoring the condition of existing fragments of these habitats over time and highlight any shortfalls in management. The species were selected as strong indicators but also as plants that can mostly be identified with confidence by non-specialists so that volunteers can participate in this activity. A local KBRG member has kindly agreed to support the indicator plant survey and monitoring, which will be invaluable.

Biological surveys of particular faunal groups that would add to the baseline of information about biodiversity on the Common are also included in the Action Plan but whether they can be undertaken will depend on the resources and expertise available.

The Ranger and volunteers have already made a start on important survey and monitoring work but some of the more specialist surveys may need professional input.

## **RUSTHALL COMMON FIVE-YEAR ACTION PLAN 2024 to 2028**

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Core Actions							
Ash dieback related safety felling and clearance	All	As necessary	✓	✓	<b>✓</b>	✓	✓
Map, control and monitor control success of INNS	All	April to October	✓	<b>✓</b>	<b>✓</b>	✓	✓
Discourage new memorial tree planting and consider suitable alternatives	All	Ongoing					
Review management outcomes & prepare new five-year plan		Summer					✓
Sandrocks							
Review status & prioritisation of rocks	All rock formations	Summer	✓				
Periodic strimming and removal of young/small woody growth as necessary	All rock formations	November to February	<b>✓</b>	✓	✓	<b>√</b>	<b>✓</b>
Open up views of rock formations through woodland management, tree and scrub reduction	Denny Bottom area, Bull's Hollow & Happy Valley	November to February	✓	✓	✓	✓	✓
Retain sandpit & short acid swards. Manage Gorse by rotational cutting	Toad Rock area	November to February	✓		✓		✓
Open up Bilberry glade by selective felling & coppicing. Bracken management	Bull's Hollow	November to February & Summer	✓	✓		✓	
Cut & collect grassland retaining longer margins around flushes	Bull's Hollow	September	✓	✓	✓	<b>√</b>	<b>✓</b>
Rotational cut & collect of Gorse slope	Happy Valley	September/October	✓	✓	✓	✓	✓
Manage sandy path edges & create small areas of bare sand	Happy Valley	September/October	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Grassland							
Annual cut & collect of valuable & flowery grassland	Bumps, Church Meadow, Cricket Ground surrounds, Tarry Path Glade, Common View & Coach Road verge	August/early September	✓	✓	✓	✓	✓
Additional spring cut & collect when possible/ necessary	Bumps Meadow, Church Meadow & Common View	Mid-late April	✓	✓	✓	✓	✓
Control encroaching Bracken	Bumps Meadow & Tarry Path Glade	Mid-June & late July/early August	✓	✓	✓	✓	<b>✓</b>
Cut back overhanging tree branches	Bumps Meadow & Church Meadow	November to February	✓				
Coppice & thin trees west of the surfaced path	Church Meadow	November to February	✓		✓		
Create, extend & manage grassland edge ecotones on rotation	All grassland margins	September	✓	✓	✓	✓	✓
Control encroaching trees, shrubs & Bramble	All grassland areas & road verges	November to February	✓	✓	✓	✓	✓
Liaise with cricket club on grassland management & avoiding use of chemicals	Cricket Ground	ASAP	✓				
Consider major habitat restoration project	Common View Meadow	Spring	✓				
Road Verges							
Safety mowing on sight-lines and for access	All road verges	As needed	<b>✓</b>	✓	<b>√</b>	✓	✓
Mow short swards next to pavements to frame longer swards	Path edges & road verges	April to October	✓	✓	<b>√</b>	✓	✓
Annual cut & collect	All road verges	September	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Ponds							
Monitor for INNS	All ponds	Spring & Summer	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓
Carry out condition audit	All ponds	Spring	✓	✓	✓	✓	✓
Rotational cut & collect management of surrounding vegetation	Marlpit	Autumn	✓	✓	✓	✓	✓
Control Parrot's-feather & New Zealand Pigmyweed	Marlpit pond	April to September	✓	✓	✓	✓	✓
Thin & coppice surrounding trees and manage glade edges to create graded ecotones	Tarry Path pond	September to February	✓		✓		✓
Create small habitat piles on glade edges	All ponds	November to February	✓		✓		✓
Ghost pond restoration project using historical maps	All		✓	✓	✓		
Consider restoring pond as part of larger biodiversity project	Common View	After consultation					
Special Trees							
Tree health and safety inspection	All	Winter	<b>√</b>	<b>✓</b>	<b>✓</b>	✓	✓
Retain deadwood in tree crowns if safe or on the ground nearby	All		✓	✓	✓	✓	✓
Create monoliths instead of felling if tree crowns become unsafe	All	As necessary					
Halo felling around mature trees where necessary	Woodland	November to February		✓		✓	

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Woodland							
Thin even-aged stands of woodland by at least 20% (especially Holly and Sycamore)	Woodland areas	November to February	✓	✓	✓	✓	✓
Selectively coppice suitable species such as Hazel, Birch, Sycamore and Field Maple	Woodland areas	November to February		✓		✓	
Extend scallops & bays to widen edge zones	Paths & glades	November to February	✓		✓		✓
Manage path & ride edges to control Bramble but retain vegetation at c.15cm+	Paths & rides	May to October	✓	✓	✓	✓	✓
Re-cut/coppice approx 20% of scrub along edge zones	Main paths & rides	November to February	✓	✓	✓	✓	✓
Cut & collect 30-50% of tall herb edge vegetation on rotation	Rides & glades	November to February	✓	✓	✓	✓	✓
Cut 30% of Bracken & Bramble on the heathy woodland slope on rotation for a trial period	Happy Valley	November to February	✓	✓	✓		
Create new glades & box glades	Path junctions & in dense, uniform stands	November to February	✓		✓		✓
Promote a dense shrub layer in woodland around edges of the Common to mitigate road noise & visual intrusion	Woodland edges	November to February	✓	✓	✓	✓	✓
Retain deadwood wherever possible	Whole site		✓	✓	✓	✓	✓
Continue to control Cherry Laurel & Rhododendron re-growth	Woodland	Winter (or spring/early summer for sparse re-growth)	<b>√</b>	<b>✓</b>	<b>√</b>	<b>√</b>	✓

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Survey & Monitoring							
Investigate setting up a digital mapping & data storage system designed to hold ecological information & management records		ASAP	✓				
Fixed-point photographic monitoring of key habitats, features and ecotones at least annually but seasonally if possible	All	Spring, Summer, Winter & Autumn	✓	✓	✓	✓	✓
Photographic audit of rock formations per 2016 Rocks Management Plan	Sandrocks	Winter	✓			✓	
Aerial photographic monitoring (when trees in leaf & bare)	All	Spring & Winter	<b>✓</b>		<b>✓</b>		✓
Habitat condition monitoring using indicator species	Grassland areas	May to September	✓	✓	<b>✓</b>	✓	✓
Botanical survey and search for Chamomile	Cricket Ground	June/July	✓	✓			
Continued survey and monitoring of aculeate hymenoptera	Sandrocks, grassland and heathy woodland	April to October	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
Butterfly transect and casual recording	All	April to September	✓	✓	✓	✓	✓
Breeding bird survey	Woodland and scrub	March to June	✓	✓	✓	✓	✓
Bat activity survey & tree roost assessment if resources allow	Woodland & edge zones	April to October & Winter					
Dormouse survey if resources allow	Woodland	April to October					
Moth trap surveys if resources allow	Where possible	April to October					
Mycological survey if resources allow	Grassland & woodland	Autumn					
Dragonfly & damselfly survey if resources allow	All ponds	April to September					

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Kent and Medway Biological Records Centre provided the biological data report, Tunbridge Wells Borough Council supplied the base maps and Kent Wildlife Trust provided LWS information.

## **Appendix**

Dr Ian Beavis hymenoptera hotspot notes and map

#### Aculeate Hymenoptera hotspots – Tunbridge Wells Common

Includes sites with potential for restoration, and contiguous sites with habitat continuity.

Most of these sites are also florally rich, so are useful for other pollinators such as hoverflies and butterflies.

#### **Tunbridge Wells Common**

- 1. Rocks & associated grassland near Gibraltar Cottage. Some bare ground for nesting at foot of rocks (top of slope) and floral resources (including Green Alkanet, dandelions, mallow, thistle, ragwort) for feeding & foraging
- 2. Mount Ephraim grassland. Grassland strip with floral resources (including dandelions in spring, Cat's-ear in summer, plus mallow, ragwort, thistle and gorse) for feeding & foraging. Previously had Yellow Meadow Ant mounds before mechanical mowing was introduced.
- 3. Wellington Rocks, sandpit and acid grassland. Sandy areas for nesting around the rocks. Loose sand with vertical and sloping sandy ground in sandpit (kept open by human disturbance) is a focal point for mate-searching and nesting of many species from spring to autumn including the only High Weald site for mining bee *Panurgus banksianus* and one of only two for *P calcaratus*. Acid grassland with numerous Yellow Meadow Ant mounds ('ant city'), some very large and old, and abundant Cat's-ear in summer, plus Lesser Celandine, Heath Bedstraw, Harebell etc. for feeding & foraging.
- 4. Heather patch (and surrounding acid grassland) in front of Victoria Grove. This was the last significant patch of heather surviving at the time the first management plan was adopted (1992), providing a haven for 3 specialist heather-foraging solitary bees (*Colletes succinctus, Andrena fuscipes, Nomada rufipes*), for which it remains a focal point. It is the best spot for Heath Bumblebee *Bombus jonellus*. The heather is also used for feeding & foraging by more generalist species. The grassland around has Yellow Meadow Ant mounds.
- 4a. Former angled linear feature formed by path-side gorse bushes opposite the heather patch. This provided a focal point for mate-searching patrol flights as well as feeding & foraging, and should be encouraged to regenerate.
- 4b. Heathland restoration area after a fire c.2005. Was successful temporarily but scrubbed over with birch and was abandoned.
- 4c. A more long-lived heathland restoration area, also from c.2005, which has remained open.
- 5. Castle Road heathland the most successful 'new' heathland restoration area with gorse and heather for feeding & foraging. Has attracted in the 3 heather specialist species from the original 'old' heather patch (4). Bare sandy ground of paths provides nesting sites.
- 6. Former acid grassland area with Yellow Meadow Ant mounds and gorse bushes. Up to the 1990s provided habitat similar to the acid grassland around Wellington Rocks, but subsequently swallowed up by scrub. One tiny sunny glade with live ant mounds survives near Highbury. This area has great potential for restoration back to its original state.
- 7. Boundary ditch marking edge of Spa Hotel grounds. Important nest site for a wide range of mining bees which nest in the sunny south-facing side, including an important population of the early flying mining bee *Andrena clarkella* and its cuckoo bee *Nomada leucophthalma*. Other mining bees nesting here included the Nationally Scarce *Andrena tibialis*, *A bimaculata* and *A apicata*. The laurel hedge above (belonging to the hotel) provides a linear feature for mate-searching flights. The ditch has become very overgrown in recent years and needs clearing to restore its full potential.
- 8. Sunny sheltered flower-rich glade by the bat refuge, with tall thistles, gorse etc for feeding & foraging.

- 8a. Major York's Road crossroads. A small but significant area of flower-rich grassland with heather, tormentil, knapweed, St John's wort etc.
- 9. Pope's Terrace Walk. Sunny, flower rich grassy verge on the north side with gorse along the woodland edge and small areas of heather. This is a significant area for feeding & foraging and there are some areas of bare vertical ground on the north side of the path used for nesting.

  9a. Relic heathland area by Race Course. Some gorse and heather survived here until the 1992 management plan encouraged restoration and scrub clearance took place. As initially restored, there were linear strips of heather and gorse across the open ground as well as around the woodland edge, but these have subsequently been mown and should be allowed to regenerate.

  10. Woodland edge and grassland strip behind and either side of Brighton Lake. This sunny south-facing linear feature is a focal point for early spring bee activity (as well as for the first exhibernation butterflies). There are some sallows (pussy willow) whose catkins are an important nectar & pollen source for the earliest spring bees. The area behind the lake has some floral resources including gorse, dandelions, ragwort for feeding & foraging, and sallow (prominent in the past) could be encouraged here too. When mowing has been relaxed the grassland strip either side of the lake has produced some interesting flowers like Grass Vetchling so has potential for a more nuanced mowing regime.
- 11. Small flower-rich meadow area between woodland and the Fairground carpark. A good spot for late summer flowers like knapweed that has produced some interesting records.

