

Tunbridge Wells Common

Five-Year Ecological Management Plan

2024-2028

Dolphin Ecological Surveys



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1.0 INTRODUCTION

1.1 The Common

Tunbridge Wells Common covers 67ha (165 acres) of land at central grid reference TQ578390. It forms part of the Rusthall Common and Tunbridge Wells Common Local Wildlife Site (LWS).

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 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.

Tunbridge Wells Common developed as lowland heathland, maintained by livestock grazing. As grazing gradually diminished, then finally ceased in the 20th Century, the vegetation changed as scrub and woodland developed 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 Common and its management now depends on mechanical vegetation control.



An area of restored heathy vegetation on the Common

The Common today contains relicts of its heathland past. This vegetation and associated species form the core of its current ecological value although more habitats of more recent origin also contribute to its rich biodiversity. Important species and assemblages present are discussed more fully in the data review report and include numerous 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).
- Locally rare, scarce and uncommon plants of high conservation priority habitats including Coralroot *Cardamine bulbifera*, Harebell *Campanula rotundifolia* and Chamomile *Chamaemelum nobile*.

- Protected and declining fauna known to occur on the Common are:
 - Great Crested Newt *Triturus cristatus* (recorded in 2022 but not re-found in 2023).
 - Hazel Dormouse *Muscardinus avellanarius*.
 - Slow-worm *Anguis fragilis*.
 - European Hedgehog *Erinaceus europaeus*.
 - Badger *Meles meles*.

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 and new records for 2023 include the spectacular Purple Emperor butterfly *Apatura iris* and Imperforate St John's-wort *Hypericum maculatum*, a Kent rarity. Information on breeding birds, amphibians and reptiles has been updated and additional records of protected and declining species can be expected in the future.

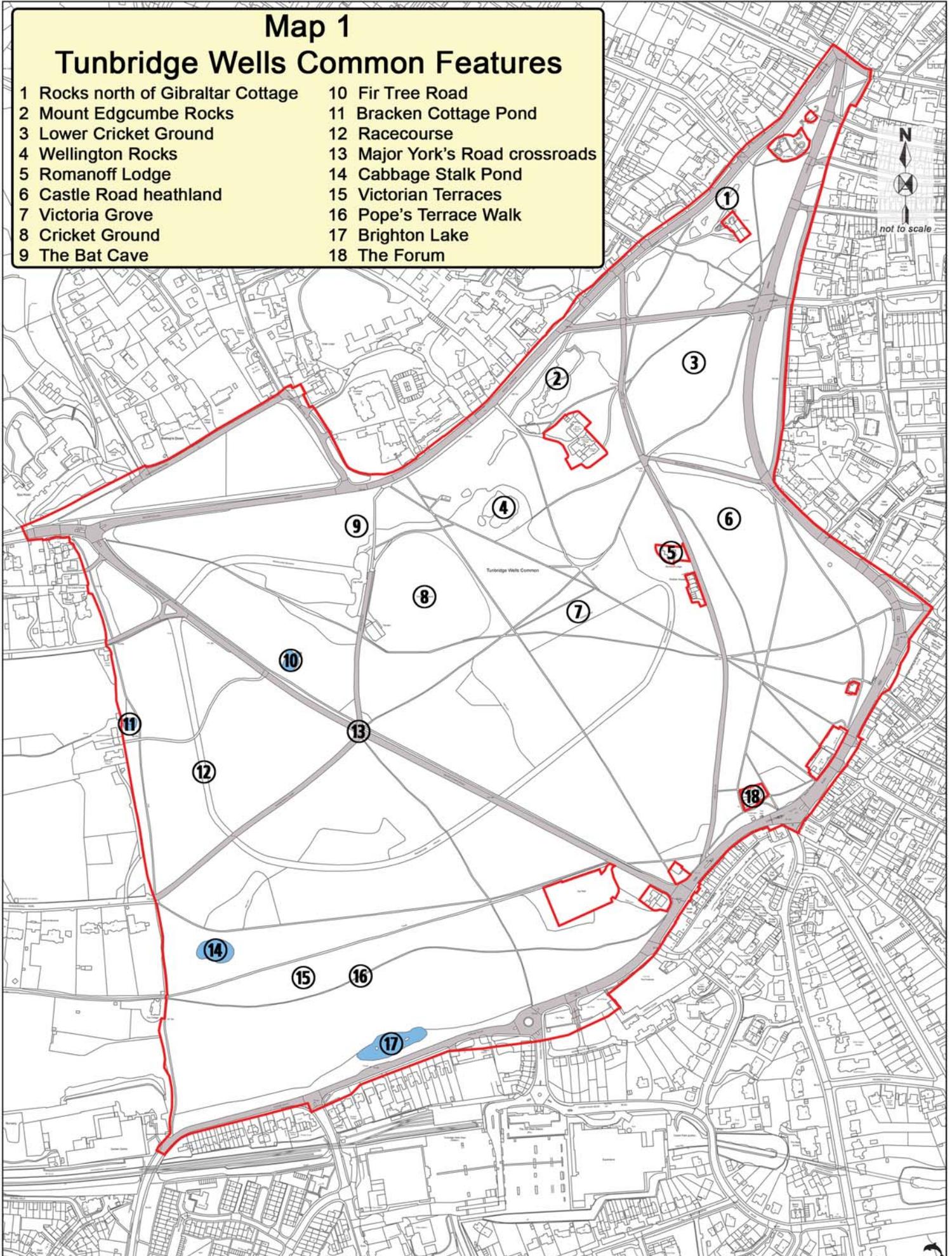
The Rusthall Common & Tunbridge Wells Common was first designated as a Local Wildlife Site (LWS) in 1986 and last revised in 2010 but its boundary does not encompass all parts of the Common which have ecological interest. Most notably the Lower Cricket Ground is excluded even though its population of Chamomile is of county importance. The potential to update the LWS boundary and citation should be brought to the attention of the Kent Wildlife Trust before their next site review.

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

Map 1

Tunbridge Wells Common Features

- | | |
|------------------------------------|---------------------------------|
| 1 Rocks north of Gibraltar Cottage | 10 Fir Tree Road |
| 2 Mount Edgcombe Rocks | 11 Bracken Cottage Pond |
| 3 Lower Cricket Ground | 12 Racecourse |
| 4 Wellington Rocks | 13 Major York's Road crossroads |
| 5 Romanoff Lodge | 14 Cabbage Stalk Pond |
| 6 Castle Road heathland | 15 Victorian Terraces |
| 7 Victoria Grove | 16 Pope's Terrace Walk |
| 8 Cricket Ground | 17 Brighton Lake |
| 9 The Bat Cave | 18 The Forum |



1.2 The Ecological Management Plan (EMP)

In the late 1980s Tunbridge Wells Common was dominated by storm-damaged woodland. The first modern site management plan for the Common 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.

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

- **To promote and maintain a biodiverse habitat mosaic of structurally complex vegetation.**
- **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 Ecological Management Plan 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.

During the preparation of this plan significant progress has been made towards securing external multi-year funding for a major programme of habitat restoration and connectivity work. The application was based on management proposals contained within this EMP.

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 through the survey and monitoring schedule (Section 3).

Some basic management principles to reduce adverse impacts on the Common and its wider environment should be applied across all areas.

- Herbicide use should be avoided unless it is essential to conserve biodiversity (for example to control Japanese Knotweed or to prevent woody 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 re-seeding. Use of non-native species should be avoided.

Specialist advice from hydrological consultants was sought in 2023 on the way that water flows around the Common and how to address surface-water flooding. The findings should be used to inform habitat work such as pond creation and path reviews.

Tunbridge Wells Common is a large, easily accessible greenspace where residents and visitors to the town can enjoy many types of informal recreation. Providing an opportunity for people to encounter an abundance of wildlife in the varied habitats on Tunbridge Wells 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 and 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 on-site information.

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

1.3 Management Priorities

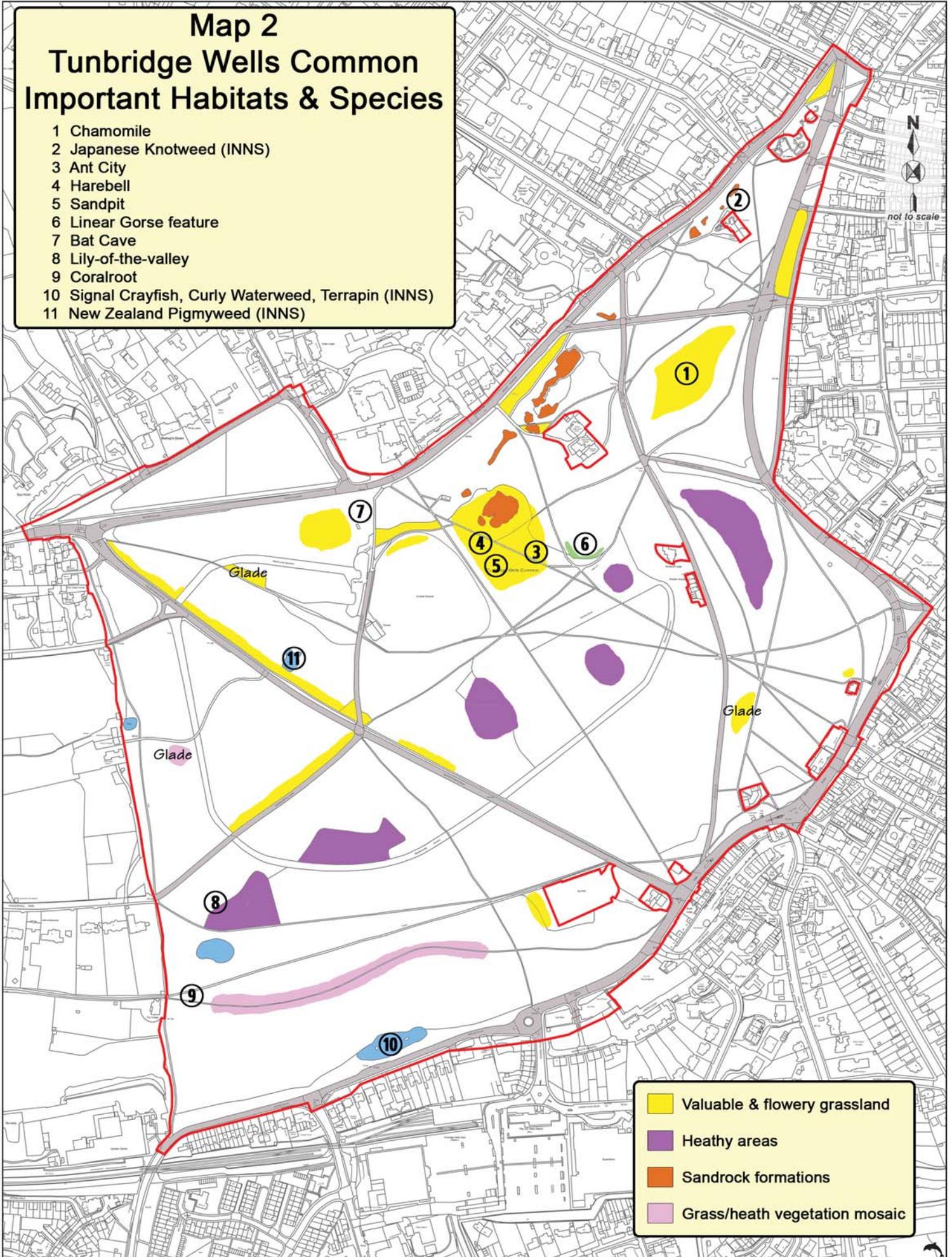
The management priorities that underlie this EMP are:

- To manage 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.

Map 2 Tunbridge Wells Common Important Habitats & Species

- 1 Chamomile
- 2 Japanese Knotweed (INNS)
- 3 Ant City
- 4 Harebell
- 5 Sandpit
- 6 Linear Gorse feature
- 7 Bat Cave
- 8 Lily-of-the-valley
- 9 Coralroot
- 10 Signal Crayfish, Curly Waterweed, Terrapin (INNS)
- 11 New Zealand Pigmyweed (INNS)



- Valuable & flowery grassland
- Heathy areas
- Sandrock formations
- Grass/heath vegetation mosaic

2.0 MANAGEMENT RECOMMENDATIONS

2.1 Ash Dieback

A considerable amount of essential tree safety work is underway on Tunbridge Wells 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.

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 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 (NNS) <https://www.nonnativespecies.org/>

There are known to be invasive fauna and flora present on the Common, mostly 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 INNS most relevant to this EMP that are known to occur on Tunbridge Wells Common are shown in the table below. All are listed on Schedule 9 of the Wildlife & Countryside Act and some are also considered to be species of special concern.

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

Species	Area/habitat	Comments
Japanese Knotweed <i>Reynoutria (Fallopia) japonica</i>	On rocks near Gibraltar Cottage	Requires ongoing control to succeed. Herbicide treatment likely to be necessary
Himalayan Balsam <i>Impatiens glandulifera</i>	Near Romanoff Lodge on Castle Rd	Species of special concern. Requires ongoing manual control.
Curly Waterweed <i>Lagarosiphon major</i>	Brighton Lake	Species of special concern. Control as part of a pond restoration project (see section 2.8.4)
Signal Crayfish <i>Pacifastacus leniusculus</i>	Brighton Lake	Species of special concern. Control as part of a pond restoration project
Terrapin <i>Trachemys sp.</i>	Brighton Lake	Species of special concern. Control as part of a pond restoration project
New Zealand Pigmyweed <i>Crassula helmsii</i>	Fir Tree Pond	Requires control. Infestation currently small (2023) and a priority for action to prevent spread
Canadian Waterweed <i>Elodea canadensis</i>	Brighton Lake & Bracken Cottage Pond (2022)	Very similar in appearance to Curly Waterweed, the presence of this species needs to be confirmed
Cherry Laurel <i>Prunus laurocerasus</i>	Woodland areas	Control ongoing control. Needs monitoring as re-growth likely
Rhododendron <i>Rhododendron ponticum</i>	Woodland areas	Control ongoing. 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 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 heathy 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.

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 town centre pavements and 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. A good example is at the northernmost tip of the Common where the sunny, south-east-facing bank has been partly re-sown with wildflowers and provides a colourful display in the summer months.



A high profile area of wildflower grassland where path edges should be kept short

In less urban areas and along wider paths a high intensity of path edge mowing is neither necessary nor ecologically desirable. Instead vegetation alongside paths should be cut back only as necessary to maintain an edge strip of approximately 10cm height within which encroaching Bramble, Bracken or scrub are 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.

In some parts of the Common there are too many paths. A large number of criss-crossing surfaced paths in the east of the Common and an excessive number of desire lines in other areas tend to fragment habitat blocks and can damage fragile vegetation, especially on the most sandy soils.

Some unsurfaced paths on the Common suffer from severe erosion and surface water run-off is accentuated where paths run straight downslope. Fast run-off and soil erosion along paths on the Common may contribute to flooding elsewhere. As paths widen, due to erosion or pedestrians avoiding waterlogged sections, there can be adverse impacts on surrounding habitats. Ditches next to paths need to be managed periodically to ensure they can collect and disperse water effectively.

A full review and rationalisation of the path network as a whole is recommended. This would allow an assessment of which are the most favoured and heavily used routes and help to prioritise the most urgent maintenance needs on surfaced or eroded paths.

Public rights of way (PROW) must be retained and kept open but it may be that some lesser used, non-PROW paths could be removed from the management schedule and allowed to close over naturally without

any loss of amenity. Conversely some of the most severely eroded unsurfaced paths could be improved by minor re-routing using soft edges (felled timber etc.) to direct visitors onto more gentle gradients with less erosion. In places it may be possible to remove the hard surface from little used routes to allow vegetation to regenerate and increase the capacity of the soil to absorb surface water.

Working in partnership with the community and KCC will be crucial for a successful path rationalisation project and advice on suitable natural flood management techniques should be incorporated.

2.4 Grassland

2.4.1 Key Factors

- Tunbridge Wells Common supports extensive areas of grassland habitat. These range from unimproved acid and neutral grassland of high conservation importance to re-sown sport and amenity swards of little botanical interest.
- Unimproved and flower-rich grassland habitats are not only botanically important but also provide food resources for a range of invertebrates, including the special bees and wasps of the Common. Some unimproved swards may also be rich in grassland fungi such as Waxcaps.
- A few grassy road verges have unimproved neutral swards of botanical interest, particularly along Major York's Road.
- A large population of Chamomile is present on the Lower Cricket Ground, one of only three native sites in Kent for this Priority Species of old grasslands.
- The main Cricket Ground has areas of short, unimproved acid grassland sward in parts of the outfield.
- The largest block of unimproved acid grassland on the Common near Wellington Rocks is locally known as "Ant City" for its numerous large ant hills.
- The fragments of ecologically important acid and neutral grassland are high priority habitats and need careful and consistent management. The vegetation depends on low soil nutrient levels which means that cut material must be collected and removed after mowing.
- Some high value areas of grassland have deteriorated since the last survey in 2005 through insufficient management, for example North of Gibraltar Cottage and in places along Mount Ephraim Road (see Appendix). Restoration and enhancement of these areas demands consistent cut and collect management to reduce the accumulated thatch that smothers new growth and increases soil nutrient levels as it rots. Removal of scrub that has established in the swards is also essential.
- There are also areas of grassland that currently have quite limited botanical diversity which could potentially be enhanced through a relaxed mowing regime combined with collection of cuttings. Less frequent mowing in recent years has allowed Grass Vetchling to appear in the grassland near Brighton Lake (see Appendix) and the verges between London Road and Inner London Road produced an abundance of Common Knapweed and even Harebell (Ian Beavis pers.comm.)
- A repeat of the 2005 habitat survey is scheduled for 2024 and will help to highlight any areas of grassland with restoration potential.

- 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 vegetation such as grassland and heathland (see below) is having a detrimental effect.
- Preventing woody species from spreading into grassland areas is difficult in the absence of grazing. Some manual removal of saplings and scrub is usually needed in addition to mowing.

2.4.2 Management of Grassland

Grassland is an important component of Tunbridge Wells Common. Active management is needed to keep this habitat open and prevent natural succession to scrub and woodland.

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 also important because variations in seasonal factors can have a big impact on vegetation growth rates.

The most valuable areas of unimproved 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 Ant City and Major York’s Road crossroads, should be cut annually in late summer and the cuttings removed. In some areas a second early season cut is also necessary to reduce biomass and maintain low soil fertility.



Diverse grassland with Ant City in the background

Other valuable grassland sward types need to be mown more often than once a year to maintain a short sward for their special plants. Examples are Chamomile on the Lower Cricket Ground and the characteristic low-growing plants of sandy acid grassland alongside the entrance to The Mount Edgcumbe hotel.



Short acid sward at Mount Edgumbe hotel

The Cricket Ground is managed by the cricket club. Their regime of frequent mowing maintains a very short, tight sward that is ideal for the relict area of low-growing plants such as Bird's-foot and Early Hair-grass on unimproved, sandy acid grassland in the northern outfield. **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.**



Area of sandy, acid sward on the cricket outfield

There is potential to restore some of the grassland swards that were once more diverse but which have deteriorated over recent years. The first choice should always be to allow wildflowers to return naturally rather than carrying out sward enhancement by sowing or planting. The annual cut and collect regime will help to show where this approach is likely to be successful by revealing areas where wildflowers flourish. Removing cuttings is essential for grassland swards under restoration to continue to become more diverse.

Rotational management of 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 refuge areas for other fauna. Leaving some vegetation uncut around the edge of grassland areas provides valuable over-wintering habitat for invertebrates.

In general terms managing grassland margins on rotation to create and maintain structurally diverse edge habitat of tall herbaceous vegetation grading into scrub or woodland is highly beneficial for a range of wildlife.

- **Amenity grassland** areas of low botanical interest in amenity areas can be mown to maintain a sward height of approximately 10cm from April to September/October. Cut material should be removed if possible.
- **The Lower Cricket Ground** should have mowing suspended from June to August so that the Chamomile is able to flower and set seed. The amenity use of the Lower Cricket Ground need not be affected by a short period of relaxed mowing which will give this Kent rarity the potential to spread further across the Common. During the rest of the growing season the sward can be mown as amenity grassland, ideally with the cutting collected.
- **Botanically diverse and unimproved acid and neutral swards** should be prioritised for management by cut and collect in late August/early September. These areas are fragile and vulnerable to deterioration if management is too light. A second cut in spring may be needed if late season growth is strong. This will help to ensure that coarse grasses do not dominate the swards.
- In **“Ant City”** the number and size of the anthills precludes mowing. Instead the grassland vegetation needs to be cut and remove annually in early autumn by hand, using either a brush cutter or scythe. Small saplings (mostly Oak) and Bramble need to be removed from this area by hand or using a tree-popper.
- **Cut and collect mowing.** Much of the grassland on the Common is suitable for management on an annual cut and collect schedule. This can promote more visible wildflowers and create better grassland habitat for wildlife. Mowing in early autumn allows most plants to set seed and is the default timing. This relaxed mowing regime is particularly helpful to highlight areas that may have been cut frequently in the past but which have a soil seedbank rich in wildflowers. There are also areas that were once more diverse but which have deteriorated through inappropriate management. Over time these swards can be restored and will become increasingly species-rich and valuable for fauna under a sensitive mowing regime with the cut material collected rather than left in situ.
- **Bramble**, especially young 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.
- **Around the Bat Cave** there are fragments of species-rich grassland amongst scrub that would benefit from the removal of woody species to link them up with the open glade area.

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.

2.4.3 Road Verges

Many of the road verges within the Common support grassland vegetation. Some verges are very species rich, especially along the north side of Major York's Road with probably the Common's best area of unimproved neutral grassland on the verge at its junction with Fir Tree Road. The very diverse sward at this crossroads supports Imperforate St John's-wort (a Kent rarity) as well as Tormentil, Common Spotted-orchid and other positive indicator species. Woody species should not be allowed to establish on these valuable grassland fragments.



Unimproved sward at Major York's Road crossroads

Flowery grassland roadside verges are also present along Mount Ephraim Road and towards Mount Edgcombe Rocks but these are quite patchy with some areas of coarse, tussocky grasses. There are clear signs of deterioration in the swards since they were last surveyed in 2005.

Grassy road verges may need to be mown regularly for safety and access purposes but in general they should be included in the Common's annual grassland management schedule. The most important aspect of their management is that cut material is collected and not allowed to lie in situ where it forms a dense thatch that smothers new growth and enriches the soil as it rots.

Trees should not be planted on road verges, especially on those with herb-rich grassland swards. There are some young, specimen trees along Mount Ephraim Road which should be removed or ring-barked if possible before they cause any further deterioration of the surrounding grassland swards by the addition of nutrient-rich leaf litter.

2.5 Heathland Vegetation

2.5.1 Key Factors

- The relict heathland fragments are valuable areas of open habitat and reflect the characteristic vegetation that once covered much of the Common. Most are now effectively glades in woodland areas, isolated from each other.
- There are areas of wet and dry heathy vegetation which include biodiverse mosaics of heather, acid grassland, Purple Moor-grass, Gorse scrub and bare sand.



Mosaic of heathy vegetation

- Heathy areas are ecologically important but vulnerable to insufficient management and the risk of fire. They are very prone to invasion by woody species (especially Bramble and Birch) and Bracken, which need to be controlled.
- Some of the heathy areas have been restored/enhanced using heather seed from Ashdown Forest but one or two are derived from the Common's original vegetation.
- Heathy areas are hotspots for aculeate hymenoptera, especially those that nest in bare, sandy ground. Other invertebrates and reptiles may also favour these habitats.



The sandpit near Wellington Rocks is important for ground-nesting bees

- Bare, sandy ground occurs in the shade of mature and senescent heather shrubs but on paths and along path edges this valuable resource is usually maintained by human pressure. Rich sources of pollen and nectar, especially flowering Gorse, are very important for the rare and special bees and wasps associated with heathy areas. The large sandpit near Wellington Rocks is ecologically important as well as a popular feature of the Common.
- In the absence of livestock grazing, the best alternative is to manage heathy areas by rotational cut and collect to promote a diverse heather age structure, conserve valuable acid grassland and maintain the vegetation mosaic.

- The six main heathland fragments vary in size and form a band across the central part of the Common (see Map 2 and Appendix).
 - **West of Romanoff Lodge.** The last significant remaining patch of Ling in 1992 which together with surrounding acid grassland (“Ant City”), bare sand and Gorse scrub form a hotspot for aculeate hymenoptera. A linear Gorse and Bramble feature on the path edge to the north is an important focal point for bees and needs careful, rotational management.
 - **South of Victoria Grove.** Two almost adjacent areas of heathland restoration dating from 2005. The western area is still largely open with Ling, Gorse and Bracken but the eastern patch is mostly overgrown with scrub, Birch and young Oak.
 - **South of the Cricket Ground.** A narrow, sloping glade with much Birch and leggy Gorse over senescent Ling. The damp lower slopes have a good population of Purple Moor-grass and abundant Tormentil.
 - **Castle Road Heathland.** A very successful area of recent heathland restoration with abundant Ling, bare ground and some Purple Moor-grass.
 - **Racecourse Heathland.** Relict Gorse and Ling remained here in 1992 then scrub clearance was carried out to restore heathland vegetation. It is now a sizeable glade of damp, heathland on a gentle south-facing slope. Woody species and Bracken have encroached into this area.
 - **North of Cabbage Stalk Pond.** A large glade on the north side of the surfaced track, this is an area of locally damp, heathy vegetation with Purple Moor-grass, Ling, Sheep’s Sorrel and Wavy Hair-grass. In the north-west there is a large population of Lily-of-the-valley, which is mentioned in the LWS citation, possibly of native origin but more likely introduced. Woody species and Bracken are becoming established especially in the west but good fragments of bare ground and heathy vegetation persist, especially in the east.

2.5.2 Management of Heathy Areas

Management of the heathy areas should aim to achieve diverse heather age classes and structure with stable or increasing populations of positive indicator species, rather than adhering to rigid cutting rotations. This will require flexibility and professional judgement from the Ranger and management decisions should take due account of the results of biological monitoring.

Either brush-cutters or flail mowers can be used in different areas depending on the terrain, accessibility and size of habitat fragments. With either method the cuttings should be removed as far as possible although heather brash may be left in situ for a short period of time to allow seed and fauna to drop from cut material.



Recently cut areas in Castle Road heathland

A high priority is to remove many of the trees and shrubs that have become established in areas dominated by dwarf shrub and Purple Moor-grass. At least one area of the Common that was previously sown with Ling has now been subsumed by dense young growth of Birch, Oak and Bramble. Gorse scrub is generally more valuable as part of the heathy mosaic and some should be retained.

- **Cut approximately 20-25% of the dwarf shrub and retained woody vegetation such as Gorse** in each of the heathy areas in autumn on a 4-5 year rotation. This is essential to promote structural complexity and create a range of heather age classes. Grass-dominated vegetation within the heathy areas should be cut annually at the same time of year.
- **Cut bays and sinuous edges** further into woodland edges around all the heathy glades wherever possible to increase the length of edge habitat and the area of open habitat. Cutting bays into the adjoining Holly-dominated woodland and widening the path edges into woodland at the Castle Road heathland will be particularly beneficial.

Reactive control of Bracken as well as Bramble, Birch and other woody species must be ongoing to maintain areas of diverse heathy vegetation.

- **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.
- **Bramble** should be managed by a combination of cutting and uprooting young plants in the same way as in valuable grassland areas (see above).
- **Birch** should not be allowed to establish any further in the small heathy fragments on the Common. Existing mature Birch trees could be coppiced to reduce seed production. Tree seedlings and saplings should be removed either by hand or using a tree-popper before their root systems become too large.
- **A circle of Pines** was planted in the Castle Road heathland during the restoration process as a landscape feature. These immature trees should ideally be removed or ring-barked to avoid future management problems arising from accumulated pine needle litter and seedling trees in heathy vegetation.

2.6 Woodland

2.6.1 Key Factors

- Much of the woodland on the Common is dense, even-aged secondary growth on formerly open habitats.
- There is good potential to increase and link the areas of heathy vegetation on the Common through management of the secondary woodland.
- Rare and declining woodland species including Coralroot and Hazel Dormouse are present and are important components of the biodiversity of the Common. These species would benefit from better woodland management to improve vegetation complexity and enhance its biodiversity.
- Ash dieback is widespread across the Common (see 2.1).
- 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.
- 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.
- Many historic vistas from the Common have gradually been obscured by tree growth. There is great potential to restore historic vistas and open up new views by carefully planned woodland management.
- Well-structured woodland can also serve to block undesirable views and create more tranquil areas near busy roads.

2.6.2 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.

Combining biodiversity objectives with opportunities to open up historic vistas will arise during woodland management work and 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 edge vegetation will also improve connectivity between the valuable fragments of open heathy and grassland habitat on the Common. The zone where heathy habitat connectivity is most likely to be successful is to the south of Major York's Road on the Victorian terraces and along the southern section of the Racecourse (see Map 3).

Rides and paths in woodland on the most sandy soils can support fragments of heathy vegetation with Ling, Gorse and bare sand along south-facing edges, often in combination with flowery grassland swards. “Pope’s Terrace Walk” is one such ride that is of high importance for aculeate hymenoptera (see Appendix).



Heathy vegetation along a wooded path

Management of woodland rides and glades on the Common is very important, not just for biodiversity but also so that visitors feel more safe in wooded areas. At present some paths are quite shaded with poor sight-lines, especially in the west and on the Victorian terraces. These areas have been a focus for anti-social behaviour at times.

- **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. The 2023 record of a Hazel Dormouse on the western edge of the Common adds to the imperative to create diverse, well-structured woodland and mixed, dense scrub habitats with an abundance of food sources that can support a population of this legally protected but declining and charismatic mammal.
- **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.
- **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 new glades within dense, uniform blocks of woodland, enlarging existing glades and creating box glades at path junctions.
- **Ride vegetation** should be managed 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 to create varied conditions along the length of each ride.

- **Coralroot.** The population of Coralroot spreads along approximately 30m of ride edges at the western end of Terrace Walk. The population of this nationally scarce plant, which in the Weald is found largely in damp woods and hedgebanks, requires careful management. Meticulous annual monitoring counts have shown considerable fluctuation in the number of plants from year to year, changes which are likely to be at least partly the result of variations in habitat condition. In Wealden woodlands Coralroot tends to thrive in areas of dappled shade without too much competition from other field layer vegetation. The ride edge on Terrace Walk has locally dense Bramble, Ivy and tall herbs which may suppress some Coralroot plants and reduce successful reproduction via its bulbils. The canopy may also be too closed for optimum growth of the plant and creating a few bays on the south side of the ride into surrounding woodland may help to increase light levels. Routine cutting of the ride in autumn will not affect Coralroot but the cut material should be removed. It may also be worth experimenting with selectively weeding Bramble and Ivy roots from some parts of the ride edge to reduce competition. Ongoing monitoring data will help to establish which interventions are most successful.

There is an excellent opportunity to restore a lost glade within the young woodland at the foot of the slope at London Road behind Highbury (see Map 3). Until quite recently this area was much more open and was a very good area for invertebrates (see Appendix). Now all that remains is a tiny fragment of grassland with old anthills and spindly Gorse scrub. Young trees and scrub should be removed to open up a sunny glade on the south-east-facing slope. This would create a highly visible and valuable area of open habitat in a part of the Common very close to the town centre and visible from the main A26 London Road. The glade would need to be managed by brush-cutter to cut and collect vegetation and encourage the return of a grassy field layer with flowering scrub edges.

The number of busy roads that criss-cross Tunbridge Wells Common means that there are few areas where people can escape the sound of cars entirely. Despite this, the visual barrier of vegetation enhances the feeling of tranquillity in many parts of Common. Woodland vegetation can mitigate traffic noise to some extent but the evidence of its actual sound reduction is variable and sometimes conflicting. Much depends on the width of the woodland, its tree and shrub species, vegetation height and plant density whilst individual site conditions are also crucial.

Retaining a fringe of dense, diverse and structurally complex woodland vegetation around most edges of the Common is generally desirable for wildlife and may help to buffer road noise in some places. Ongoing management of this vegetation is needed otherwise the benefits of dense growth will dwindle. This may be happening between the Victorian terraces and the A26 Eridge Road where Holly is increasingly dominant and is shading out other species in the shrub layer. As low level sight-lines open up, the impact of road noise on this part of the Common is likely to increase unless management is undertaken to diversify the woodland and promote the growth of a more dense shrub layer.

2.7 Special Trees

2.7.1 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 <https://www.ancienttreeforum.org.uk/resources/>
- A comprehensive survey and map of trees on the Common was produced by the Freehold Tenants in 2016 to support the 2017 management plan.

2.7.2 Management of Special Trees

Mature and important trees should be inspected annually by the Ranger 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 any further planting memorial trees should be discouraged. These are often ornamental species which may have few wildlife benefits, they may die if not tended and in the past some have been planted on diverse grassland swards. Tree planting also runs contrary to a key objective of the EMP, which is to increase the extent of open habitat by reducing woodland cover. 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.

2.8 Ponds, Ditches & Streams

2.8.1 Key Factors

- There are four ponds in the western part of the Common. Three small semi-natural ponds (Bracken Cottage Pond, Cabbage Stalk Pond and Fir Tree Pond) and Brighton Lake, which is a lined Victorian pond.
- An annual audit of pond condition has been carried out since 2017.
- The ponds provide excellent habitat for a variety of wildlife.
- Most ponds support, or have the potential to support, protected and declining amphibians.
- INNS are currently known from Fir Tree Pond and Brighton Lake but all ponds have the potential to be affected and should be monitored for INNS so that early action can be taken to prevent worse infestations.
- Ponds and ditches on the Common have good potential to contribute to natural flood management and mitigate surface water run-off. The ditches that are present alongside many paths and road verges need periodic clearance.
- A ditch on the Common boundary at the Spa Hotel and the adjoining grassland form an important area for aculeate hymenoptera (see Appendix). Currently the ditch is overgrown and would benefit from more regular clearance whilst the grass verge should be managed as a source of wildflowers rich in pollen and nectar.
- Sections of two small headwater streams of the River Grom occur in the west of the Common.
 - The Bracken Cottage Pond stream has wetland plants including Ragged Robin on its margins. It runs through open ground north of the path then through a culvert and feeds into the pond.
 - “The Brook” in the south-western corner of the Common is now largely lost underground but it used to run in an open channel from the Pantiles, along the southern edge of Eridge Road, under the road and across the Common to a bridge under the western boundary path and into the neighbouring land (Ian Beavis pers.comm.). A small “sinkhole” is all that remains on the Common to marks its route.

2.8.2 Routine Management of Ponds

The three small 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 all the small 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.

- **De-silting** is occasionally carried out to retain the existing ponds. This should only be done 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.
- **At Cabbage Stalk Pond** opening up the tree canopy around the pond will help to strengthen its connectivity for fauna with widened rides and open habitat along the terraces.
- **Fir Tree Pond** had a small amount of New Zealand Pigmyweed on its margins in 2023. This INNS should be carefully removed from the pond by hand. Disposal of plant fragments can be problematic but this task could be co-ordinated with large scale INNS removal at Brighton Lake which will require safe off-site disposal of INNS (see 2.8.4).

2.8.3 Ghost Ponds

Increasing the number of ponds on the Common would be good for wildlife. A “ghost pond” project to find and restore lost historic ponds that are marked on old maps should be considered.

Re-instating 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.

As well as ecological benefits, additional ponds could be a useful part of a natural flood management approach to managing surface water flow across the Common.

2.8.4 Brighton Lake Restoration

The LWS citation (last revised in late 2011) describes Brighton Lake as having a diverse aquatic flora including Mare’s-tail *Hippurus vulgaris* and Broad-leaved Pondweed *Potamogeton natans*. In 2023 KBRG recorded two quite widespread plants Cyperus Sedge *Carex pseudocyperus* and Marsh Pennywort *Hydrocotyle vulgaris* on the margins. Common Toads continue to attempt to breed in the pond, whilst dragonfly and damselfly species are regularly seen around the margins.

Unfortunately the very shallow water of Brighton Lake is now dominated by Curly Waterweed (a highly invasive, non-native aquatic species) and biodiversity is certain to have declined as a result. Eliminating Curly Waterweed would be necessary to allow native flora to return and improve pond health through increased oxygen and light levels.

Fishing is not officially sanctioned in Brighton Lake but the presence of large Carp has attracted the attention of anglers, who sometimes remove large amounts of Curly Waterweed and deposit it on the banks. This practice could lead to the plant spreading to other ponds on the Common or further afield.

An eDNA test in 2023 confirmed the presence of another INNS in Brighton Lake, the American Signal Crayfish. This voracious predator of aquatic invertebrates is also likely to be having a severely adverse impact on the biodiversity of the pond. Signal Crayfish can be very hard to eradicate as they can live at high density and many individuals can be less than 25mm in length. The many crevices in the reinforced banks of Brighton Lake form ideal habitat for this animal to inhabit and evade capture. New techniques to eliminate Signal Crayfish from ponds, lakes, streams and rivers are frequently being developed and trialled. Most include a combination of trapping, searching likely refuges and sometimes repeated de-watering/dRAINING sections of watercourses.

At least two Terrapins have been observed in Brighton Lake (Ranger pers.comm.). This is another efficient INNS predator of native pond life which should be removed from the site.

Serious and urgent consideration should be given to carrying out a major restoration and INNS removal project of this high profile Victorian pond. Temporarily draining the pond would allow multiple objectives to be achieved.

Restoring Brighton Lake could have huge benefits by enhancing biodiversity and restoring the aesthetic appeal of this historic feature of the Common.

The Environment Agency would need to be consulted and involved with this project because their written permission is needed to trap Signal Crayfish, which in turn may require a licence from Natural England. Input from an ecologist trained and licenced to work with crayfish would be essential and the work would need to be scheduled to minimise harm to breeding Toads and other wildlife.

A full restoration scheme would need careful planning, budgeting and a specialist contractor to carry out INNS control in compliance with all legislation.

Details of a restoration scheme and INNS removal techniques are outside the scope of this plan but it would provide an excellent opportunity to:

- Re-profile the pond edges to create an earth shelf where marginal vegetation could be established (perhaps using planted coir rolls).
- Plant more Grey Willow on the northern bank to provide an early pollen source for insects.
- Review the balance of mown and unmown areas on the pond banks and encourage more wildflowers by creating more tall sward areas.

2.8.5 Managing Streams

The small watercourse that feeds into Bracken Cottage Pond simply needs periodic and rotational clearance of the vegetation along its length to keep it open and retain its wetland flora. Cut vegetation should be removed from the stream edges.

The Brook is a small but interesting feature of the Common. This tiny headwater of the River Grom once ran from the Pantiles and across the south-western corner of the Common but its course is now largely underground. It would be worth investigating the feasibility of a project to re-open the stream and re-instate its course under the boundary path with a new bridge. This could be included within the wider natural flood management consultation related to the path network (see 2.3) or specific advice could be sought from the South East Rivers Trust info@southeastriverstrust.org.

2.9 Sandrocks

2.9.1 Key Factors

There are three main rock formations, concentrated along the northern edge of the Common. None have statutory designation (unlike Toad Rock SSSI on Rusthall Common).

- Wellington Rocks.
- Mount Edgcumbe Rocks.

- Rocks north of Gibraltar Cottage.

2.9.2 Management of Sandrocks

In 2016 members of the Freehold Tenants Association prepared a management plan for the rock formations on Tunbridge Wells and Rusthall Commons. The recommendations in their plan still provide a sound basis for vegetation management on and around the rocks to keep them visible and in good condition.

On Tunbridge Wells Common periodic strimming and removal of small or young woody growth form the core management activities. These should be continued as necessary on all three 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.

In general where mature or significant trees have become established on the rocks these should be retained if it is safe to do so. However, where there is an opportunity to open up views of the rock formations by cutting back surrounding trees and shrubs this could also be carried out if time and resources allow.

It is important to note that areas of open, sandy ground that occur adjacent to many of the rocks can be very valuable habitat to aculeate hymenoptera and other native fauna.

- **Wellington Rocks** is the best known, much beloved and most prominent formation on Tunbridge Wells Common and good management is a high priority. Woody species should be cleared from the rocks although the amount of grass and herbaceous vegetation is largely kept under control by the high levels of visitor interaction with the rocks. The area surrounding these rocks is very important for lekking and breeding aculeates. For this reason it is important to maintain dense, young Gorse nearby and to create sandy scrapes on the woodland edges nearby as additional habitat.



Valuable aculeate habitat mosaic of grassland, scrub and bare sand around Wellington Rocks

- **Mount Edgumbe Rocks** include surface, flat rocks and steep sandstone exposures, which all need routine, periodic vegetation management. There is an opportunity to enhance the habitat around the base of Mount Edgumbe by collecting cut grass after mowing and possibly restoring a “ghost pond” (see 2.8.3).
- **The rocks north of Gibraltar Cottage** are fairly overgrown and would benefit from management of woody species to open them up if resources allow. A large stand of Japanese Knotweed, (INNS) is

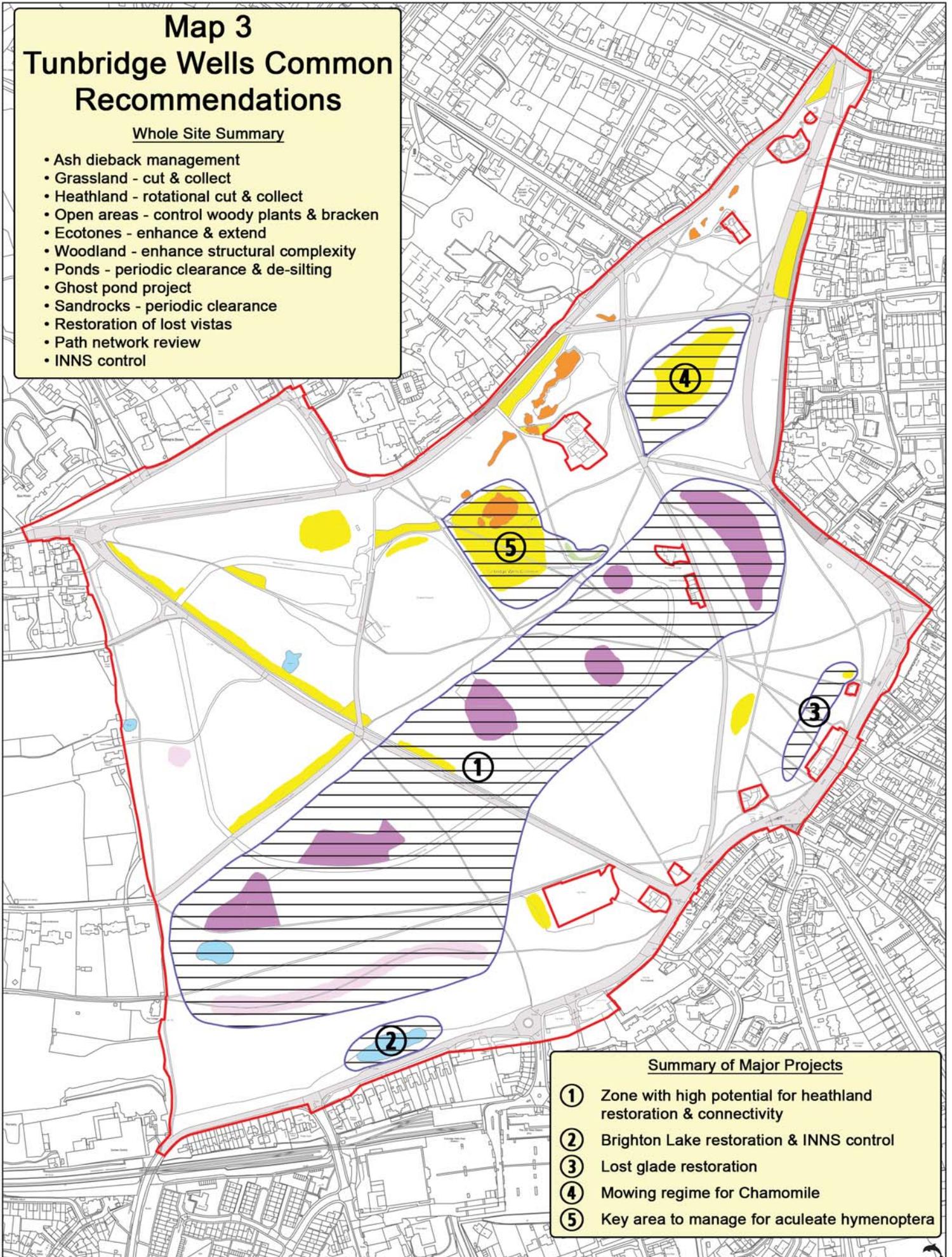
invasive plant should be eliminated from the Common. Options include either repeated treatment with herbicide or full excavation. In either case it would be advisable to seek specialist advice on the best approach.

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

Map 3 Tunbridge Wells Common Recommendations

Whole Site Summary

- Ash dieback management
- Grassland - cut & collect
- Heathland - rotational cut & collect
- Open areas - control woody plants & bracken
- Ecotones - enhance & extend
- Woodland - enhance structural complexity
- Ponds - periodic clearance & de-silting
- Ghost pond project
- Sandrocks - periodic clearance
- Restoration of lost vistas
- Path network review
- INNS control



Summary of Major Projects

- ① Zone with high potential for heathland restoration & connectivity
- ② Brighton Lake restoration & INNS control
- ③ Lost glade restoration
- ④ Mowing regime for Chamomile
- ⑤ Key area to manage for aculeate hymenoptera

3.0 SURVEY & MONITORING

Making appropriate decisions on management for biodiversity on the Common relies on having accurate information about the species and habitats present. This includes the extent of important habitats, their degree of connectivity, the distribution and population size of rare and key indicator species.

The purpose of biological survey and monitoring is 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 made some of the recommendations redundant.

The presence of both Hazel Dormouse and Hedgehog on the Common has been confirmed by direct sightings. Surveys to detect these declining mammals using footprint tunnels is no longer necessary, although this method could be used in future to find out more about their distribution across the Common.

Additional information on rare plants that occur on the Common has been generously supplied by the Kent Botanical Recording Group (KBRG).

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 2. 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 habitat maps from the 1991/2003/2016 surveys	Approximate extent of key habitats mapped. Repeat of 2003 survey by the same botanist scheduled for 2024
Hazel Dormouse footprint tunnel survey	Hazel Dormouse presence confirmed. Installation of nest boxes under consideration
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
Hedgehog footprint tunnel survey	Hedgehog presence confirmed. Further survey unnecessary
Breeding bird survey	Bird surveys by volunteers - ongoing
Butterfly recording transects	Started in 2023 by Ranger with volunteers - ongoing
Reptile survey	Started in 2023 by Ranger with volunteers - ongoing
Crayfish eDNA test of Brighton Lake	Complete. Presence of American Signal Crayfish confirmed

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.

TUNBRIDGE WELLS 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	✓	✓	✓	✓	✓
Map, control and monitor control success of INNS	All	April to October	✓	✓	✓	✓	✓
Map, review & rationalise the path network	All	Any	✓	✓			
Use hydrological assessment results to inform natural flood management options for work on paths, ponds, ditches and stream re-instatement	All	ASAP	✓				
Discourage new memorial tree planting and consider suitable alternatives	All	Ongoing					
Review management outcomes & prepare new five-year plan		Summer					✓
Grassland							
Inform cricket club about unimproved sward on the pitch outfield and the need to avoid chemical use	Cricket Ground	ASAP	✓				
Cut & collect flowery neutral swards annually but at intervals across the Common	See Map 2	Late August/early September	✓	✓	✓	✓	✓
Additional spring cut & collect of flowery neutral swards where necessary to reduce fertility and biomass	See Map 2	Late April	✓	✓	✓	✓	✓
Cut & collect unimproved sward with brush-cutter or scythe and remove woody species	Ant City	Early September	✓	✓	✓	✓	✓
Cut & collect unimproved neutral sward	Major York's Road crossroads	Mid-late August	✓	✓	✓	✓	✓

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Mow areas of low botanical interest as needed	Amenity areas	April to October	✓	✓	✓	✓	✓
Suspend mowing from June to August to benefit population of Chamomile, otherwise cut & collect as needed for amenity	Lower Cricket Ground	April to June then August to October	✓	✓	✓	✓	✓
Cut and collect all remaining non-amenity grassland areas & identify swards with restoration or enhancement potential	All remaining grassland	September	✓	✓	✓	✓	✓
Create & manage grassland edge ecotones, cut sections on rotation	Grassland margins	September	✓	✓	✓	✓	✓
Remove scrub & young trees to link grassland fragments	Bat Cave area	Spring	✓	✓	✓		
Road verges							
Safety mowing on sight-lines and for access	All road verges	As needed	✓	✓	✓	✓	✓
Annual cut & collect	All road verges	September	✓	✓	✓	✓	✓
No further tree planting & remove young trees where possible	All road verges	Winter	✓	✓	✓	✓	✓
Heathland							
Cut & collect 20-25% of dwarf shrub (heather) areas and Gorse scrub in each area on rotation	Heathy areas	October	✓	✓	✓	✓	✓
Cut & collect all areas of grassy sward	Heathy areas	October	✓	✓	✓	✓	✓
Remove/reduce trees, shrubs and Bramble	Heathy areas	November to February	✓	✓	✓	✓	✓
Control Bracken	Heathy areas	Mid-June & late July/early August	✓	✓	✓	✓	✓
Remove or ring-bark immature Pine trees	Castle Road heathland	November to February	✓		✓		

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Cut bays and sinuous edges into adjoining woodland	Heathy areas	November to February	✓	✓	✓	✓	✓
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	✓	✓	✓	✓	✓
Create new glades & box glades	Path junctions & in dense, uniform stands	November to February	✓		✓		✓
Selectively weed Bramble & Ivy from the worst affected area where Coralroot grows	Terrace Walk	November/ December	✓			✓	
Restore glade. Remove young trees & scrub, cut & collect field layer. Manage scrub edge zones on rotation	Eastern edge near The Forum	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 to early Spring	✓	✓	✓	✓	✓

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Special Trees							
Tree health and safety inspection by the Ranger	All	Winter	✓	✓	✓	✓	✓
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		✓		✓	
Ponds, Ditches & Streams							
Carry out condition audit	Ponds	Spring	✓	✓	✓	✓	✓
Remove New Zealand Pigmyweed and dispose of material by burning on site if possible	Fir Tree Pond	ASAP	✓				
Manage surrounding glade edges to create graded ecotones	Ponds	September to February	✓	✓	✓	✓	✓
Create small habitat piles on glade edges	Ponds	November to February	✓			✓	
Open tree canopy to increase light levels	Cabbage Stalk Pond	November to February	✓				
Consider major restoration project including INNS removal	Brighton Lake	Phased work schedule will be necessary	✓	✓	✓		
Ghost pond restoration project using historical maps	All		✓	✓	✓		

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Periodic clearance of ditches alongside paths, verges and at the Spa Hotel as necessary	All	Autumn/winter	✓	✓	✓	✓	✓
Clear vegetation from the stream banks on rotation as necessary	Bracken Cottage Pond feeder stream	Autumn	✓	✓	✓	✓	✓
Consult on the feasibility of a project to re-open The Brook	South-west corner	ASAP	✓				
Sandrocks							
Periodic strimming and removal of young/small woody growth as necessary	All rock formations	November to February	✓	✓	✓	✓	✓
Open up views of rock formations through woodland management, tree and scrub reduction	Mount Edgcumbe Rocks, Rocks north of Gibraltar Cottage	November to February	✓	✓	✓	✓	✓
Retain & create new sandy scrapes. Manage dense young Gorse by rotational cutting	Wellington Rocks area	November to February	✓		✓		✓
Cut & collect grassland. Investigate potential Ghost Pond site	Mount Edgcumbe Rocks	September	✓	✓	✓	✓	✓
Seek advice on Japanese Knotweed control	Rocks north of Gibraltar Cottage	ASAP	✓				
Survey & Monitoring							
Investigate setting up a digital mapping and data storage system designed to hold ecological information and 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	✓			✓	

MANAGEMENT TASK	AREA	TIMING	2024	2025	2026	2027	2028
Aerial photographic monitoring (ideally when trees in leaf and when bare)	All	Spring & Winter	✓		✓		✓
Habitat condition monitoring using indicator species	Grassland & heathy areas	May to September	✓	✓	✓	✓	✓
eDNA testing for Great Crested Newt presence if resources allow	Ponds	Sampling 15 th April to 30 th June	✓				
Continued survey and monitoring of aculeate hymenoptera	Grassland, heathy areas and rides	April to October	✓	✓	✓	✓	✓
Butterfly transect and casual recording	All	April to September	✓	✓	✓	✓	✓
Reptile survey using cover objects	Heathy and edge habitats	April to October	✓				
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 nest box survey if resources allow	Woodland	April to October					
Moth trap surveys if resources allow	Where possible	April to October					
Mycological survey with initial focus on grassland fungi if resources allow	Grassland & woodland	Autumn					
Dragonfly & damselfly survey if resources allow	All ponds	April to September					

References

Barber, J. and Preston, R. (2016) *Tunbridge Wells and Rusthall Common Rocks Management Plan*. Unpublished report to the Conservators of Tunbridge Wells Commons

Dolphin Ecological Surveys (2023a) *Tunbridge Wells Commons Data Review* Unpublished report to the Conservators of Tunbridge Wells Commons

Dolphin Ecological Surveys (2023b) *Tunbridge Wells Commons Indicator Species Survey & Monitoring Project*. Unpublished report to the Conservators of Tunbridge Wells Commons

Kent High Weald Partnership (2016) *Tunbridge Wells and Rusthall Commons Management Plan Update Draft Report v4 December 2016*. Unpublished report to the Conservators of Tunbridge Wells Commons

Kent Rare Plant Register. Issued March 2023. Compiled by Geoffrey Kitchener and the Kent Botanical Recording Group

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Appendix

Dr Ian Beavis hymenoptera hotspot notes and map

Aculeate Hymenoptera hotspots – Tunbridge Wells Commons

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 ex-hibernation 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.

