Leckhampton Hill and Charlton Kings Common & Ravensgate Common

Management Plan 2025

Abbey Sanders Ecology

for

Restoring Cheltenham's Escarpment Grasslands Project Steering Group

V3.0, 7th August 2025

Contents

1 Introduction

The Restoring Cheltenham's Escarpment Grasslands project steering group is made up of representatives from Cheltenham Borough Council (CBC), Charlton Kings Parish Council (CKPC), and Friends of Leckhampton Hill and Charlton Kings Common (FOLK). Three years' funding was obtained from National Grid's Landscape Enhancement Initiative for works to tackle some of the major management needs on Charlton Kings and Ravensgate Commons and Leckhampton Hill.

This Management Plan covers a strategic nature conservation area on the Cheltenham escarpment including an important grassland, Leckhampton Hill and Charlton Kings Common Site of Special Scientific Interest (SSSI) and adjacent areas and Ravensgate Common Local Wildlife Site (LWS). Together these sites make an important contribution to the character of the local landscape through their prominent positions in the Cotswolds National Landscape (CNL). The production of a new Management Plan is important in delivering landscape and biodiversity contributions to the CNL Management Plan.

A consultancy team led by Abbey Sanders Ecology was appointed to produce this plan, working with the steering group, during 2023-2025. The plan follows the previous 'Leckhampton Hill and Charlton Kings Common Management Plan' (April 2003), produced by Nortoft Partnerships Ltd. For reference and to download, go to: https://www.cheltenham.gov.uk/download/downloads/id/830/leckhampton_hill_and_charlton_kings_common.pdf.

The current plan incorporates additional fields known as 'Hopkins' and 'Cowslip' immediately east of the main site, and Ravensgate Common 2km further to the east. The new plan provides an update, focusing on ecology, particularly grassland habitats and their management, and scrub in its relationship with grassland. It reflects changes in legislation and policy, and constraints and opportunities including climate change.

A practical approach is provided through partnership working and currently available management techniques, working to the CMS (Countryside Management System) Guidelines including 'adaptable management' (The CMS Guide to Management

Planning, Mike Alexander, 2005 and ‘A Guide to Management Planning’ Mike Alexander, for the Wildlife Trusts of South and West Wales, 2020).

This plan is intended to be a rolling Management Plan which will guide management detailed over an initial ten-year period.

2 Vision Statement

To conserve, enhance and connect the calcareous grassland and associated habitats of the Leckhampton Hill and Charlton Kings Common and Ravensgate Common sites, in line with their designated site status and their Cotswolds National Landscape characteristics. To optimise the features that are recognised as making these sites special in a scarce north-facing landscape, considering all their geological, archaeological, and biodiversity interests as well as the value of these to people, and within thriving populations of flora and fauna characteristic of those landscapes, through self-sustaining habitats within site and through free-flowing movement between sites.

3 Methods and Approach

The methods and approach were developed between the steering group and the consultant in the early stages leading up to and following the commission. Within the available budget and timescales, the consultant has worked with the steering group, members of the voluntary sector, and Council colleagues, and gathered wider information from partner organisations.

Parts of the text, particularly on Ravensgate Common and Ecosystem Services, have been provided by members of the steering group.

A wealth of survey information and local knowledge that was previously collected by many skilled and knowledgeable members of the community, has been drawn together to help create a baseline for future monitoring of the sites' management and for the benefit of shared local and national knowledge.

Consultations were undertaken with site users, graziers, volunteers, and other organisations including:

- Gloucestershire Wildlife Trust (GWT) - Managers and officers working on the Nature Recovery Network, Habimapping surveys of key sites in relation to the network, staff managing Crickley Hill nature reserve and other local reserves, and staff involved in a funded project to improve Adder habitat including two sites on Leckhampton Hill and Charlton Kings Common (LHCKC).
- the National Trust (NT) managing Crickley Hill and other local wildlife sites.
- Butterfly Conservation (BC) managing local nature reserves and carrying out butterfly surveys.
- Natural England (NE) involved in site management and agri-environment schemes.
- Graziers for each site.
- Volunteers who hold key roles in managing, studying, and protecting the sites.

Records information has been gathered and where possible included within Cheltenham Borough Council's Geographical Information System (GIS) mapping, so that this can be used to inform future management and form a baseline for monitoring.

A review of pre-existing information has included the 2003 management plan for LHCKC, a Grassland Management Plan for LHCKC prepared in 2012 by John Harvey for a Higher-Level Stewardship (HLS) Agri-environment scheme application, the details of the designated sites within the plan's and surrounding areas, and strategic plans including the Gloucestershire Nature Recovery Network habitat mapping.

A records search, commissioned by the Parish Council in 2023 from the Gloucestershire Centre for Environmental Records (GCER), has been reviewed.

Research on management being undertaken on similar sites, and the requirements of local policies and plans, has also been undertaken to inform this plan. This has included a review of the Cotswolds National Landscape's 'Cotswold Nature Recovery Plan' (October 2021), and their 'Management Plan 2025 - 2030'. An academic study of grazing on the common, 'The Use of Virtual Fence Collars for Improving the Effectiveness of Cattle as a Land Management Tool' by George Paton-Philip (2023), has also been reviewed.

Updated habitat survey information gathered by GWT and other volunteers and Council staff has been reviewed by the consultancy team through desk study and site survey over the 2023 and 2024 seasons, to assist in preparing the baseline habitat maps.

A S Ecology staff visited the sites on 15th September 2023, 25th September 2023, 11th March 2024, 6th June 2024 (Ravensgate Common); and 17th June 2024, 16th July 2024 (Leckhampton Hill and Charlton Kings Common).

Habitat mapping has previously followed Phase 1 Habitat Survey, and National Vegetation Classification (NVC) techniques. In line with the approach adopted by GWT in 2023, the consultancy team has followed the adapted 'UK Habs' survey technique 'UK Habitat Classification Version 2.0' UK Habs Ltd. (at http://www.ukhab.org 2023).

4 Context and Site Description

4.1 Leckhampton Hill & Charlton Kings Common

Leckhampton Hill and Charlton Kings Common comprise extensive areas of calcareous grasslands, including a north-facing escarpment directly to the south of the centre of Cheltenham town. Much of the site has been notified as an SSSI since 1954 for its calcareous grassland habitats and presence of associated scarce invertebrate; as well as its geological interest. The site is therefore of national importance for both its ecology and geology. The escarpment is surrounded by agricultural land with some domestic properties and lies entirely within the Cotswolds National Landscape.

The site comprises approximately 63.8 ha of notified SSSI, plus Daisybank field: a total area of approximately 67 ha. The site includes very steep west and north-facing grasslands, with particular interest in the north-facing escarpment. Flat plateaux grasslands are also present to the southwest, central area, and to the east. Blocks of broadleaved and plantation woodland dominate the site in the central areas an also occur on steep inclines.

Daisybank is an area of semi-improved grassland that has been relatively unmanaged except for access in recent years. Three additional field units are also included - an additional 10 ha (approx.). Two are north of the Cotswolds Way (‘Hopkins’), and one to the south (‘Cowslip’) to the east. The northern Hopkins field contains an area of semi-improved good quality lowland calcareous grassland, which has been used as a seed bank for local conservation projects; with the southern field being more improved and rank with tall arable herbs. The Cowslip field has more diverse species than the southern Hopkins field, although it also has more rank areas with tall arable herbs and scrub growth. The fields are bordered by belts of native and mixed woodland and dense scrub.

Refer to the 2003 Management Plan for further details and maps of the core area (see p.5 for link).

Re-notification with extension 18 December 1991.

COUNTY: GLOUCESTERSHIRE SITE NAME: LECKHAMPTON HILL AND CHARLTON KINGS COMMON

DISTRICT: CHELTENHAM/TEWKESBURY SITE REF: 15 WWY

Status: Site of Special Scientific Interest (SSSI) notified under Section 28 of the Wildlife and Countryside Act 1981 as amended

Local Planning Authority: GLOUCESTERSHIRE COUNTY COUNCIL, Tewkesbury Borough Council, Cheltenham Borough Council

National Grid Reference: SO 952187 Area: 63.8 (ha.) 157.7 (ac.)

Ordnance Survey Sheet 1:50,000: 163 1:10,000: SO 91 NW, NE

Date Notified (Under 1949 Act): 1954 Date of Last Revision: 1974

Date Notified (Under 1981 Act): 1986 Date of Last Revision: 1991

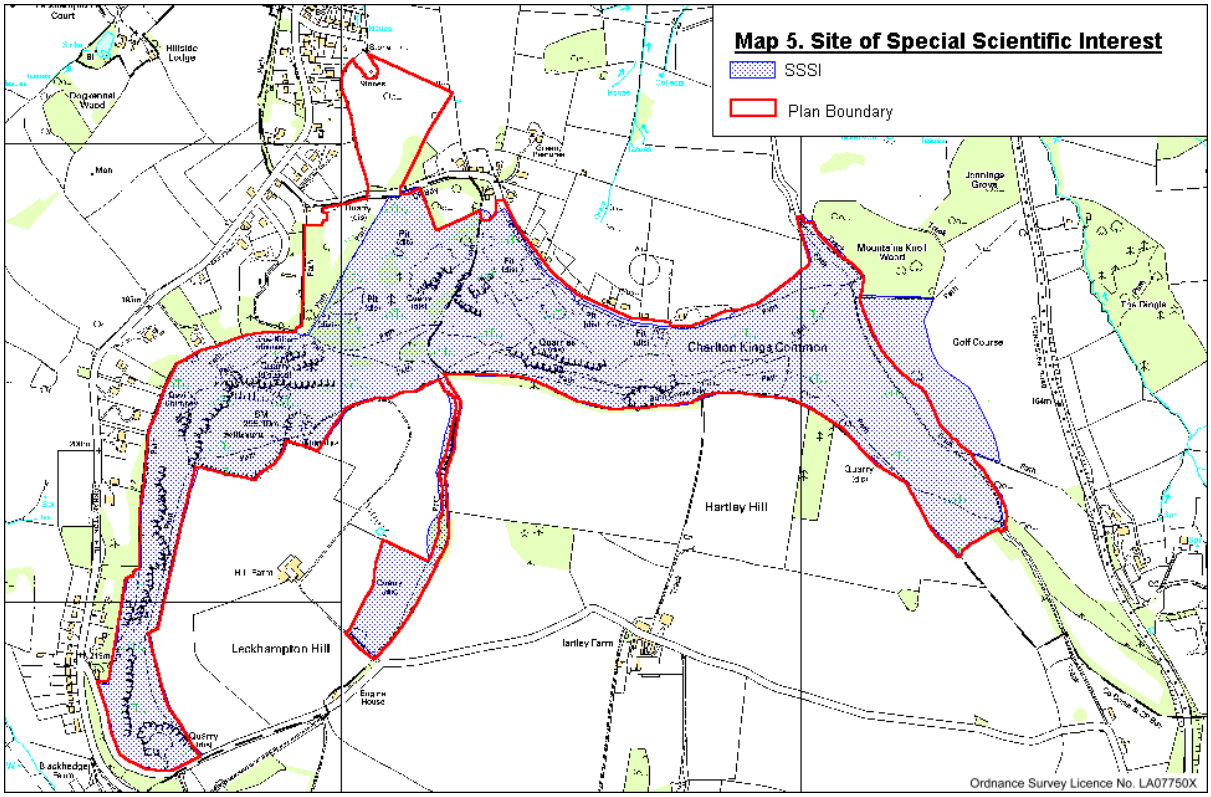
Other Information:
Within the Cotswold AONB. Boundary alteration (extension notified 18 December 1991).

Reasons for Notification:
Introduction
One of a series of unimproved Jurassic limestone grassland sites found along the Cotswold Scarp. It lies immediately south of Cheltenham and differs from many of the Cotswold Scarp grasslands in having a predominantly north-facing aspect. The site includes former quarry faces and vegetated quarry spoil and is of biological and geological interest.

Biology
A range of habitats are present including unimproved calcareous grassland, scrub, woodland, scree slopes and cliff faces. The most important and extensive feature is the grassland. This mainly consists of a tall ungrazed sward dominated by tor-grass *Brachypodium pinnatum* and upright brome *Bromus erectus* with meadow oat-grass *Avenula pratensis*, sweet vernal-grass *Anthoxanthum odoratum*, and quaking grass *Briza media*. Herb species present include salad burnet *Sanguisorba minor*, common rock-rose *Helianthemum nummularium* and common bird's-foot-trefoil *Lotus corniculatus*. On old quarry floor areas and former workings a shorter herb rich sward occurs with wild thyme *Thymus praecox*, dwarf thistle *Cirsium acaule*, yellow-wort *Blackstonia perfoliata* and autumn gentian *Gentianella amarella*.

The grassland flora includes many plants which are scarce or local at a national or county level. These include fly orchid *Ophrys insectifera*, purple milk-vetch *Astragalus danicus* and the nationally scarce musk orchid *Herminium monorchis*. It is also one of only four Gloucestershire sites for the rare meadow clary *Salvia pratensis.*

There is extensive scrub development over parts of the site. Two principal types of scrub may be distinguished: mixed broadleaf scrub dominated by hawthorn *Crataegus monogyna* with blackthorn *Prunus spinosa* and wild rose *Rosa* sp.; and gorse scrub consisting of gorse *Ulex europaeus* with occasional pockets of ash *Fraxinus excelsior* regeneration. The scrub provides a food source and habitat for nesting birds such as meadow pipit *Anthus pratensis* and grasshopper warbler *Locustella naevia*, also shelter for invertebrates and small mammals.



Species-rich limestone grassland at Leckhampton Camp

Central / east part of main site following clearance of Gorse scrub patches

Very steep grassland and scrub at west end of site

East end of main site from top of hill

Established mixed scrub at base of slope, central area of main site

Devil's Chimney

Dead Man's Quarry

Orchids at Brownstones Quarry

Belted Galloway cattle at north central area of the main site

Wildlife gate in recently restored section of boundary drystone wall

Daisybank field after fencing allowed grazing to be introduced in autumn 2024

Cowslip meadow

Hopkins north field

4.2 Ravensgate Common

4.2.1 Location and size

Ravensgate Common lies on the edge of the Cotswold escarpment to the south-east of Cheltenham and is entirely within the Borough. Its calcareous grasslands lie on a north-facing slope, very steep in places, which is critical to its ecological importance and uncommon within the Cotswolds National Landscape. Such slopes will become increasingly important in a warmer climate where species are retreating to cooler environments with less insolation.

4.2.2 Elevation and geology

The highest point of Ravensgate Common is at 285 metres OD, compared to the highest point in the Cotswolds and in Gloucestershire of 330m at Cleeve Hill.

The solid limestone geology mirrors the western elements of the escarpment, comprising Middle Jurassic, Inferior Oolite strata. There are no quarries, and the geology is shown only as surface exposures.

4.2.3 Tenure

In 1977, the Chief Commons Commissioner determined that Ravensgate Common has no registered owner, and that it '*would remain under the protection of S.9 of The Commons Registration Act 1965*'.

In 2009, Charlton Kings Parish Council signed a Memorandum of Agreement as the 'Custodian' of the Common, in order to facilitate a Countryside Stewardship Higher-Level Scheme agreement with Natural England. Under S.9, as '*a local authority in whose area the land is situated*', CKPC has maintained this custodianship role.

4.2.4 Access

The only vehicular access to Ravensgate Common from a public road is via land owned by Five Acres Farm, Vineyards Farm, and Wistley Heights house.

Under The Law of Property Act 1925, S.13, the Common (being on land formerly in an Urban District), members of the public have 'rights of access to take air and exercise'. Under the Countryside and Rights of Way Act 2000, S.2, there is access '*for the purposes of open-air recreation*' subject to the provisions of the Act.

Public footpaths ZCK/61/1 and 61/2 cross the Common, and the Cotswold Way National Trail follows the line of public footpaths ZCK/70 and ACO49/1 (which adjoins the Common and is unfenced from it).

Although there are no designated bridleways on the Common, two bridleways ZCK/54 and ZCK/55 enable access, via Lynch Lane and Vineyards Farm.

4.2.5 Conservation designations

Ravensgate Common has been identified by GWT as a 'Key Wildlife Site' (KWS) and is identified as a 'Local Wildlife Site' (LWS) in the Borough Council's Cheltenham Plan. In this plan, the LWS statutory designation is used in preference to KWS.

4.2.6 Registered Common Land

Ravensgate Common was confirmed as Common CL213 by the Chief Commons Commissioner on 23rd November 1977. This area, as shown on the Gov.UK Magic map, covers an area of 13.92 ha although the steep slopes increase the actual area. The land within the common that is grazed as a unit, is only 11.50 ha, as the south-west corner of the registered common was fenced off and improved with fertilisers in the late 1900s and now lies within a separate management unit.

4.2.7 Scheduled Ancient Monument / Sites and Monuments Record

Currently, it is considered that there are no archaeological or historic features of note on Ravensgate Common.

4.2.8 Cotswolds National Landscape (formerly AONB)

The whole of Ravensgate Common lies within the Cotswolds National Landscape.

4.2.9 Administrative boundaries

Ravensgate Common is wholly within the Borough of Cheltenham. The southern boundary of the common is marked by the scattered remains of a drystone wall, which also delineates the southern boundary of Charlton Kings civil parish and of Cheltenham Borough.

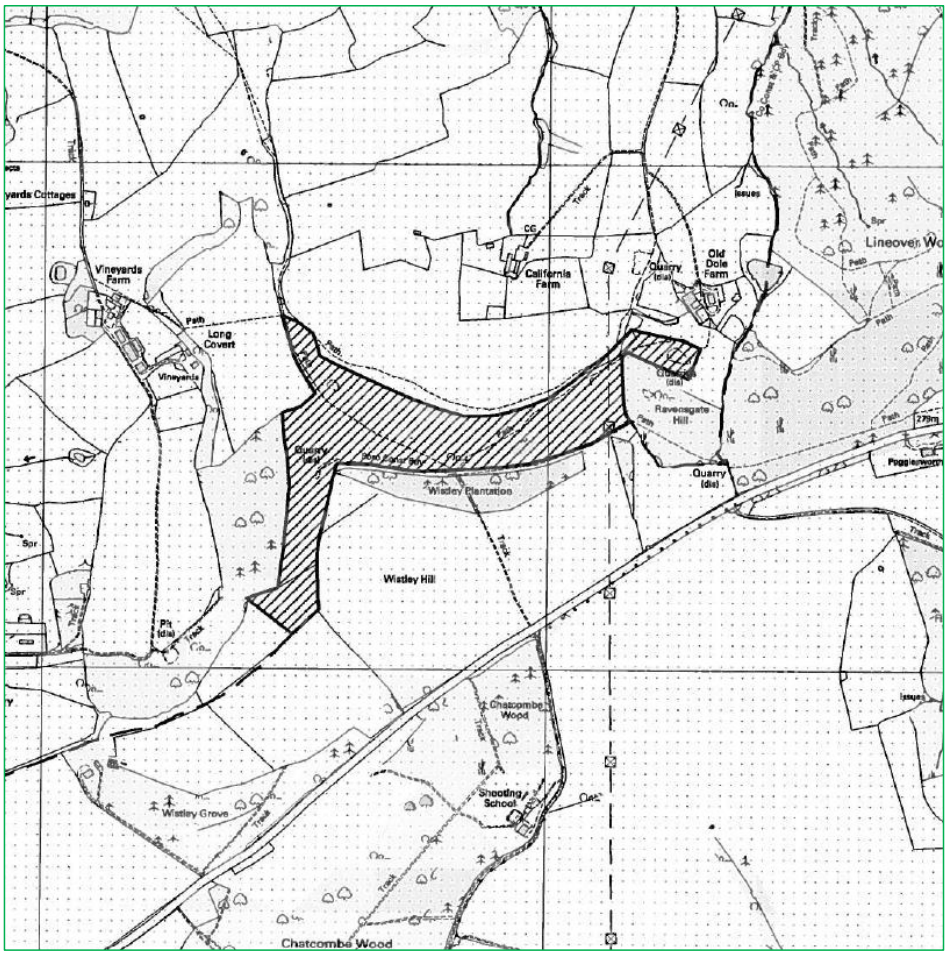
4.2.10 Other features

A National Grid 400kV transmission line pylon is situated at the eastern end of the escarpment slope.

GLOUCESTERSHIRE LOCAL WILDLIFE SITE

Ravensgate Hill

Status: Local Wildlife Site
Site Code: SO91/012
Grid reference (approx. centroid): SO977185
Reason for Selection: Semi-natural grassland



Map scale 1:10000

Boundary version 1.1
Date printed 22/03/2004

GCER
Gloucestershire Centre for Environmental Records

Ravensgate Common east end of plateau

Ravensgate grassland and scrub on main slope at centre of site

Scrub at base of slope western end of Ravensgate Common

Pollarded veteran Ash tree with high biodiversity value at north-east of Ravensgate

Species-rich limestone grassland at top of slope, west end of Ravensgate

Quaking grass at Ravensgate

Roman Snail at Ravensgate

5 Legislation, Policy, and Plans

5.1 Conservation of Habitats and Species Regulations 2017

Several species that are known to or have a good potential to occur within the plan sites, are covered by the highest level of legal protection through the Conservation of Habitats and Species Regulations 2017 (as amended), known as the 'Habitats Regulations'. These UK regulations transposed the European Conservation (Natural Habitats &c.) Regulations 1994 into UK law and remain in place following Brexit. These species include all locally occurring bat species and Hazel Dormouse *Muscardinus avellanarius*.

5.2 Wildlife and Countryside Act 1981

In addition to the SSSI notification on much of Leckhampton Hill and Charlton Kings Common, the Wildlife and Countryside Act, 1981 (as amended) identifies a range of species, many of which occur or potentially occur within the boundaries of each site. These species are protected from killing, injury or disturbance, and the protection extends to 'possession' and to their breeding and resting places in some cases (nests, setts etc.) and include the Roman Snail *Helix pomatia*, reptile species, nesting birds and Badgers *Meles meles* (also protected by the Protection of Badgers Act 1992).

5.3 Environment Act 2021

The Environment Act 2021 is a key piece of legislation which followed Brexit and created several new legal requirements and responsibilities. These include the setting up of the Office of Environmental Protection, which ensures that government and all public bodies are accountable for their actions affecting the environment. Other key elements of the new legislation aim to improve air quality, restore natural habitats, increase biodiversity, reduce waste, and better manage resources. The Act aims to halt the decline in biodiversity by 2030. It requires most planning application developments to demonstrate a 10% Biodiversity Net Gain (BNG), and Local Authorities to set up Local Nature Recovery Strategies to support a Nature Recovery Network, with landscape level targets for increasing the extent, quality and connectivity of habitats

5.4 Natural Environment and Rural Communities Act 2006

Section 41 of the Natural Environment and Rural Communities Act (2006) lists habitats and species which are of principal importance for the conservation of biodiversity in England, to which local authorities and other organisations must have regard in meeting their 'Biodiversity Duty'.

5.5 Agri-environment land management agreements

An application to Defra for a Higher-Level Stewardship (HLS) agreement on LHCKC was made in 2023. Targets from this are incorporated into this Management Plan as appropriate. Consultation with Natural England in 2024 advised that these targets are likely to remain appropriate, pending an update on new national Agri-environment scheme guidance, expected by 2025 (but not yet received at time of publication).

5.6 Cheltenham Borough Council Plans and Policies

The Cheltenham Borough Council Local Plan 2011 – 2031 refers to the importance of the Gloucestershire Nature Map and Strategic Nature Areas (SNAs) and recognises the site as the only SSSI in Cheltenham Borough.

The Joint Core Strategy was adopted in 2017. Policy SD9 states that biodiversity and geodiversity will be protected, including the safeguarding of European and national protected species, conserving and enhancing biodiversity and geodiversity on protected sites, and encouraging the creation, restoration, and beneficial management of priority landscapes, priority habitats, and populations of priority species.

Cheltenham Borough Council has declared 'Climate Emergency' and committed to become a net zero carbon Council and Borough by 2030.

The Climate Emergency Action Plan sets out the 'pathway to net zero' with actions including to '*manage council owned land to increase biodiversity and reduce carbon pollution, i.e. through reduced pesticides and mowing…*' to '*seek to actively restore and expand ecosystems in line with the Environment Act 2021, with a focus on enhancing biodiversity and natural carbon sinks*'; and to '*work with the Gloucestershire Nature Partnership to help identify nature and ecosystem restoration opportunities across Cheltenham, to increase and restore habitats, support species and promote ecosystem quality and function*'.

The full area of Ravensgate Common was designated by GWT in 1984 as Key Wildlife Site (KWS) 'Ravensgate Hill'. It was recognised as *'species-rich grassland' and further described as 'steep north-facing limestone grassland – short grazed and species rich*'. It is identified in the Cheltenham Local Plan as a 'Local Wildlife Site (LWS), a designation that recognizes its importance as a scarce example of a north-facing escarpment grassland on calcareous substrate.

There are approximately 850 LWS across Gloucestershire, selected by a panel of experts who assess the nature conservation interest against a set of criteria, which are based on national priorities interpreted at a local level. Both habitats and species form part of the assessment process. Local Planning Authorities must have regard to the protection of LWSs through their decision making.

5.7 Cotswolds National Landscape Plans and Policies

The Cotswolds National Landscape Management Plan 2025 – 2030 is a statutory plan which sets out policies to guide the work of stakeholders, including landowners and Local Planning Authorities. The plan identifies '*nature's decline and the ecological crisis*' as a key issue which can be addressed through *creating 'a robust and resilient nature recovery network – a landscape rich in joined up and well managed habitats'* (p.18).

The Cotswolds Nature Recovery Plan, adopted as guidance by the Cotswolds National Landscape Board in 2021, provides more detail about how a nature recovery network could be achieved, along with specific targets. It identifies the characteristic species and habitats of the Cotswolds along with actions be taken to enable their recovery and adaptation to climate change. It advises a habitat-led approach to nature restoration, whilst ensuring that species are considered in decision making (Cotswolds Conservation Board, 2021). The species and habitats identified in the Cotswolds Nature Recovery Plan have been taken into account in the selection of features for both sites.

5.8 Gloucestershire Nature Recovery Strategy

Gloucestershire County Council is currently working with the Gloucestershire Local Nature Partnership to produce a Local Nature Recovery Strategy (LNRS) for the county, a draft of which is due to be circulated for public consultation in Autumn 2025.

The strategy will identify priorities for protecting habitats and species within the county and will be supported by county-wide mapping of habitats.

6 Ecosystem Services

6.1 Supporting, Regulating, Cultural, and Provisioning Services

The natural environment is made up of many ecosystems such as woodlands, grasslands, freshwater, and the sea, which comprise communities of organisms that live and interact with each other. Although it is important that we protect our natural environment for its intrinsic qualities - its variety of species, communities, and habitats – it also provides services benefiting humans. These 'ecosystem services' can be separated into four broad categories:

- Supporting Services, such as soil formation, nutrient cycling, water cycling, and primary production underpin the provision of all other 'service' categories. All protected areas, such as our commons, deliver services of geodiversity, biodiversity, and the physical/ecological interactions.
- Regulating Services, such as flood protection, pollination, climate regulation, and the protection of air/soil/water quality.
- Cultural Services, such as education, cultural heritage/sense of place, health, recreation, tourism, and aesthetic value.
- Provisioning Services, such as food, fibre, fuel, biomaterials, and water.

In this plan, provisioning services are not important, and the delivery of cultural services will be addressed in other ways. Therefore, this plan focuses on creating a framework for the physical management of the habitats, species, and geology, which will deliver optimal supporting and regulating services.

Cheltenham's escarpment grasslands have a role to play in delivering important regulating services, which need to receive focused consideration when associated with works to improve biodiversity

6.1.1 Water regulation and flood management

The key principle of 'Natural Flood Management' is the interception of precipitation and slowing down of surface run-off, to increase the time taken for water to enter main watercourses such as the Lilley and Hearne Brooks, and finally the River Chelt. Maintaining the 'roughness' of the grasslands and scrub is of primary importance, but consideration also needs to be given to creating 'permeable dams' across gullies and

valleys. These factors also allow more time for surface water to seep into the limestone bedrock and to recharge the aquifer.

6.1.2 Pollination

The natural habitats and plant communities of our commons provide important sanctuaries for insect pollinators. They support sustainable populations of wild pollinators, which help to repopulate other green spaces and gardens.

6.1.3 Genetic resources

Similarly, our commons contain genetic resources of animal and plant species with the potential to repopulate depleted local areas with locally native species. Those that make up our natural habitats, particularly the rarer species, will have to come from somewhere, and protected areas will play an increasingly important role.

7 Habitat Mapping Results 2024

Updated habitat survey information gathered by the Gloucestershire Wildlife Trust, other volunteers and council staff has been reviewed by the consultancy team through desk study and site surveys over the 2023 and 2024 seasons to assist in preparing the baseline habitat maps. Site visits by A S Ecology were made on 15th September 2023, 25th September 2023, 11th March 2024, 6th June 2024 (Ravensgate Common); and 17th June 2024 and 6th July 2024 (Leckhampton Hill and Charlton Kings Common).

The following illustrates the results of habitat surveys by A S Ecology in summer 2023 and 2024, overlaid and adapted from the GWT Habimapping surveys conducted in early summer 2023.

Habitat mapping has previously followed Phase 1 Habitat Survey and National Vegetation Classification (NVC) techniques. In line with the approach adopted by GWT in 2023, the consultancy team has followed the adapted 'UK Habs' survey technique 'UK Habitat Classification Version 2.0' UK Habs Ltd. (at http://www.ukhab.org, 2023).

The classification g2a5 covers NVC communities CG1 - CG7 and CG10. It is also affiliated with Annex 1 habitat H6210 Semi-natural dry grassland and scrubland facies on calcareous substrates (*Festuco-brometalia*) Lowland calcareous grassland priority habitat.

For both sites, the grasslands that were previously described as NVC communities

- CG3a *Bromus erectus* grassland, typical sub-community
- CG3c *Bromus erectus* grassland, *Knautia arvensis – Bellis perennis* subcommunity
- CG4b *Brachypodium pinnatum* grassland, *Centaurea nigra – Leontodon hispidus* sub-community
- CG4c *Brachypodium pinnatum* grassland, *Holcus lanatus* sub-community
- CG5a *Bromus erectus – Brachypodium pinnatum* grassland, typical subcommunity

- CG5b *Bromus erectus – Brachypodium pinnatum* grassland, *Hieracium spp*. sub-community

are all described in the UK habitat classification as g2a5.

Refer to **Appendix 1** for the detailed results tables of **Habitat Classification**, **Habitat Map Codes, Secondary Descriptions** and **Survey Notes**.

7.1 Leckhampton Hill & Charlton Kings Common

Areas excluded from the previous Leckhampton Hill and Charlton Kings Common management plan compartments, will now be included for management to extend the important habitats and create better connectivity to neighbouring sites.

The habitats present include several calcareous grassland communities such as CG3a, CG3c, CG4b, CG4c, CG5a, and CG5b, over the different aspects, soil depths and slope; all between 250m and 287m in elevation.

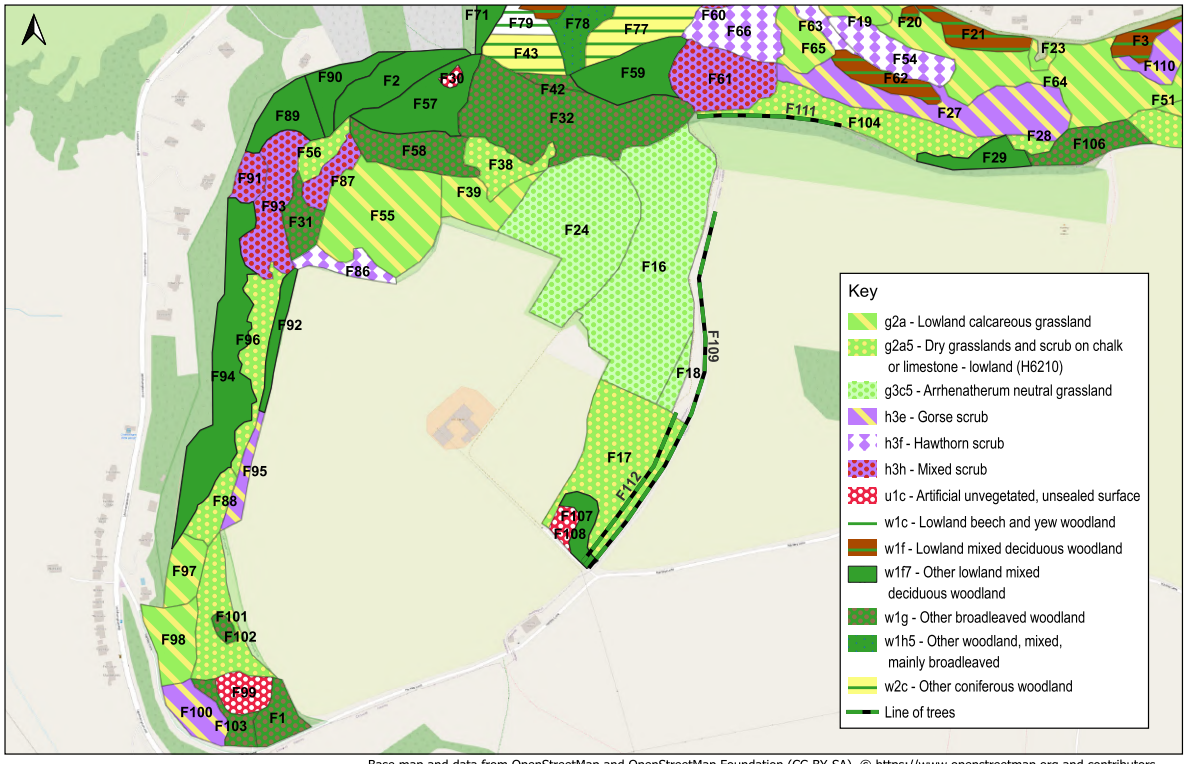
Daisybank field has been classified as MG1 or similar neutral grassland with some, more species-rich, areas. Gorse scrub features heavily, particularly on the steeper ground, but hazel and hawthorn scrub are also present. Many areas of woodland have been recorded, including beech plantation conifer plantation, and native mixed broadleaved woodland. Other habitats include sparsely vegetated former quarries, and cliffs.

Other detailed habitat descriptions have been provided previously for the site and are considered to remain relevant, see; *2003 Management Plan*, *and Harvey, John (2012). Leckhampton Hill and Charlton Kings Common HLS Agreement Grassland Management Plan.*

7.1.1 Restoring Cheltenham's Escarpment Grassland Project Improvements

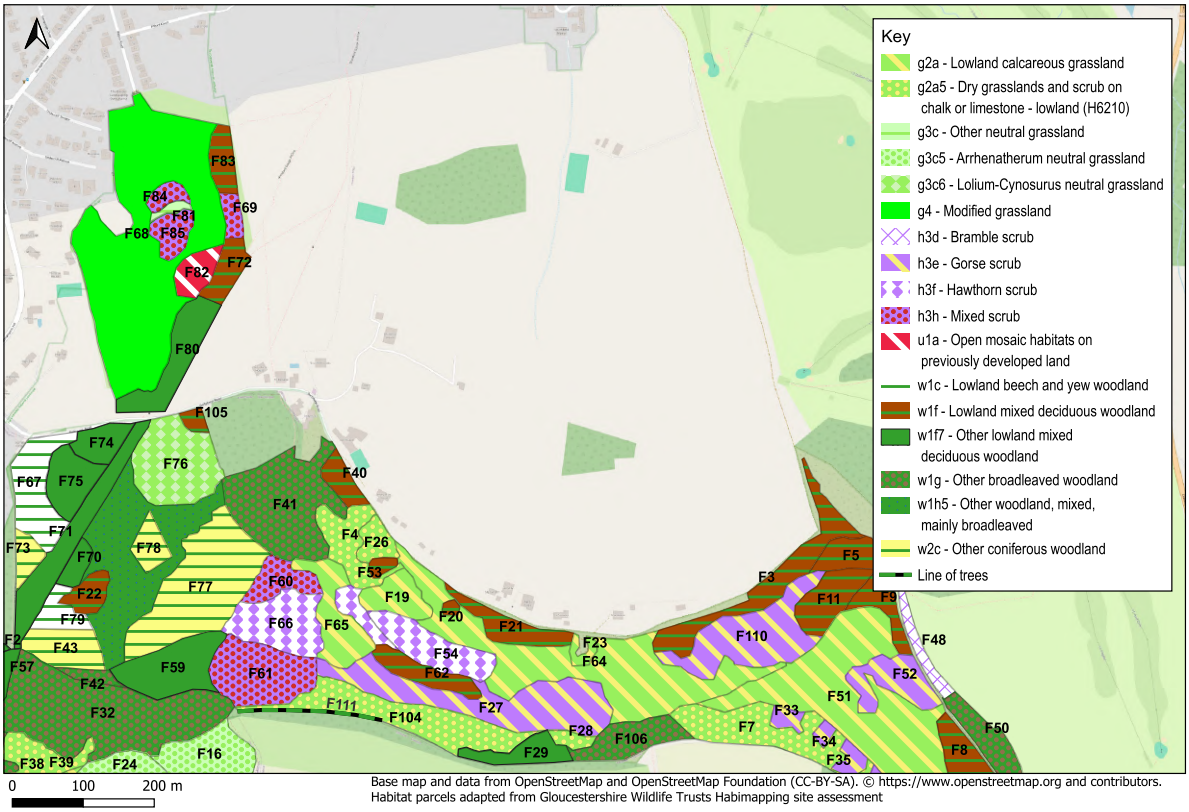
As part of the works funded by National Grid, improvements to the site have been made over the three-year funding period. These include restoring drystone walls, resurfacing paths, repairing and improving perimeter fencing, and setting up 'No fence' GPS collars for cattle. Removal of scrub encroachment and Tor grass thatch from sensitive habitat areas has also been undertaken to restore grassland habitat.

Leckhampton Hill & Charlton King's Common Map 1 (Part1): Habitats



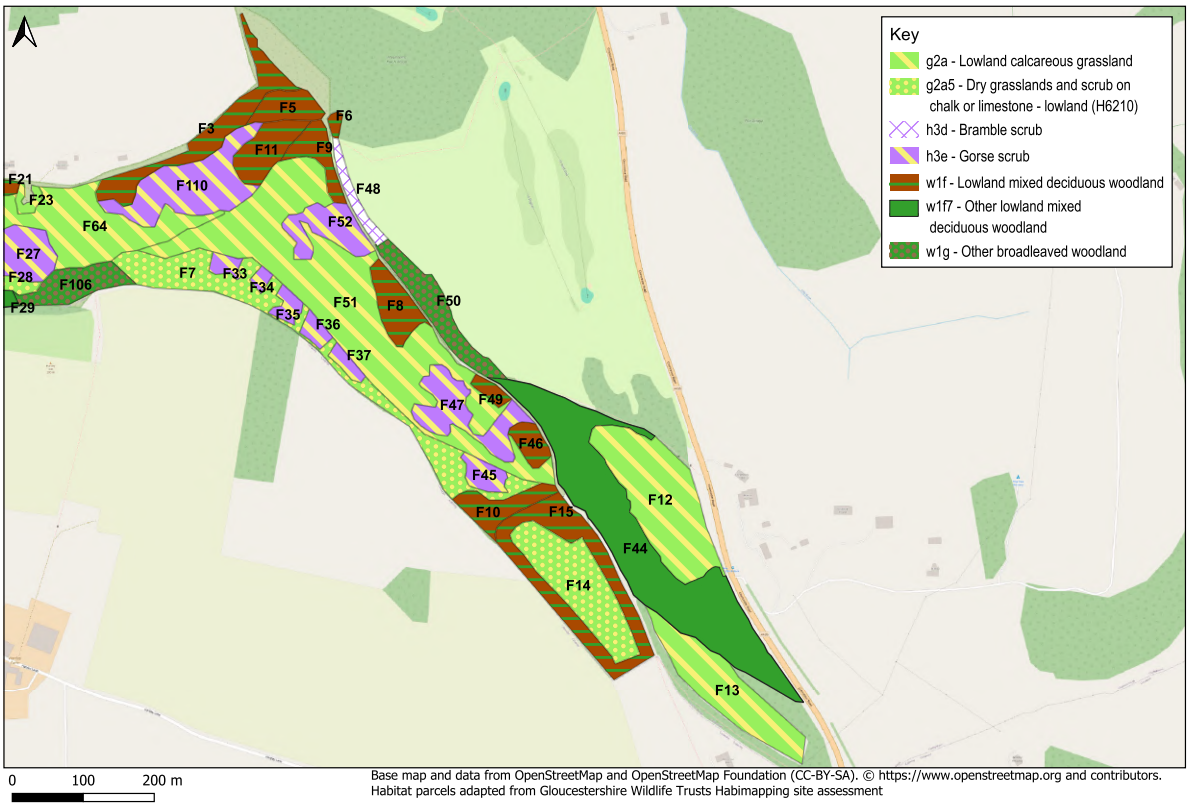
Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors.
Habitat parcels adapted from Gloucestershire Wildlife Trusts Habimapping site assessment

Leckhampton Hill & Charlton King's Common Map 1 (Part 2): Habitats



Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors.
Habitat parcels adapted from Gloucestershire Wildlife Trusts Habimapping site assessment

Leckhampton Hill & Charlton King's Common Map 1 (Part 3): Habitats



7.2 Ravensgate Common

The habitats found at the Ravensgate site are mainly calcareous grasslands with scattered patches of dense scrub. Small areas of broadleaved woodland are present, mainly to the east of the site. Although grasslands have not been surveyed in detail in recent years, CG3b *Bromus erectus grassland*, Centaurea nigra sub-community, and CG3c *Knautia arvensis-Bellis* perennis sub-community, are likely on the flatter area. CG5 *Bromus erectus - Brachypodium pinnatum* grassland is the most likely community on the steep, north-facing escarpment, showing a much more grass dominated, taller sward at an elevation of between 250m - 280m. On the flat area of the site at the top of the slope with deeper soils, MG6 grassland has been identified, with the underlying limestone geology influencing the presence of some species.

Scrub to the southern and eastern margins of the site is dominated by blackthorn, while the woodlands are a mixture of hazel, ash, beech, oak, and hawthorn with occasional wild service tree on the northern boundary.

The grassland of the north-facing slopes has many similarities to that of Charlton Kings Common's north-facing slopes, in that it is dominated by coarse grasses and, is herb

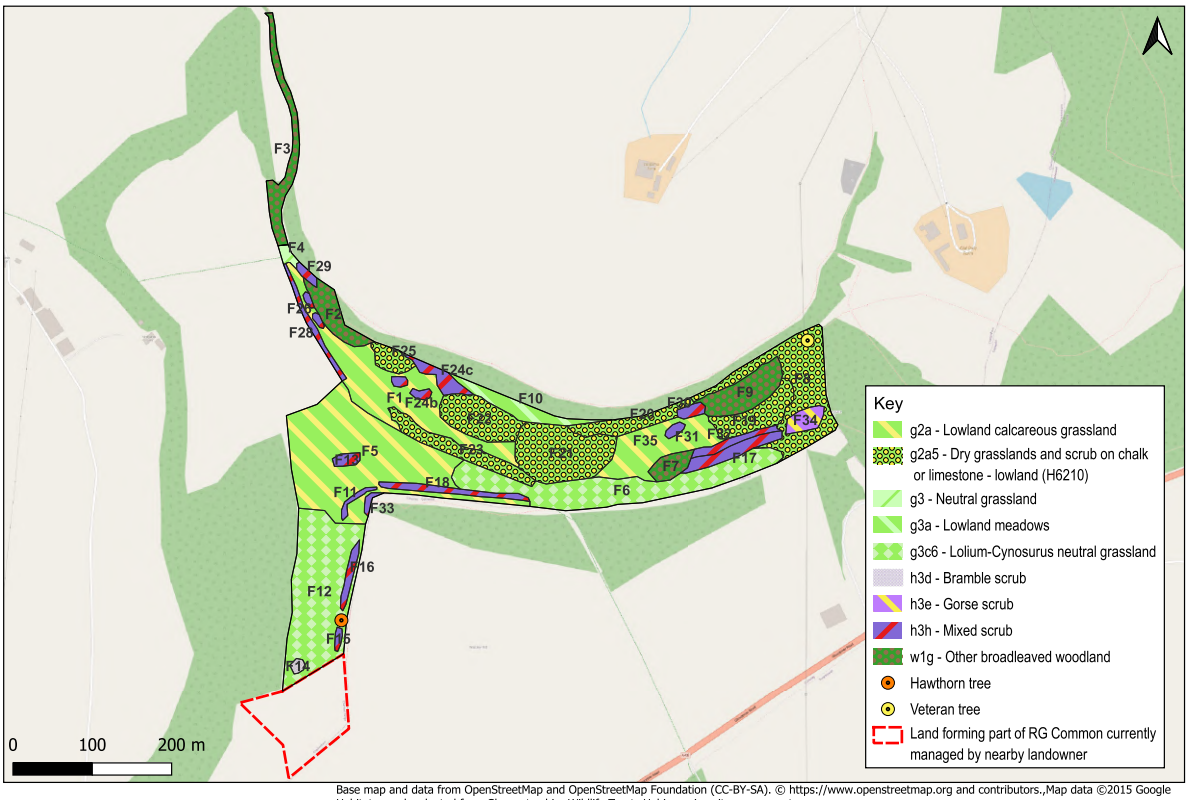
poor with scattered scrub, but does not contain the rare flora of Leckhampton Hill and Charlton Kings Common

Further in-depth habitat descriptions have been provided previously for the site and are considered to remain relevant, including: Nature Conservancy Council (NCC) Grassland Survey Record Cards for quadrats and communities (McDonald 1991); a report for the AONB (CNL) by Just Ecology (Mellings and Arnold, 2004) that included DAFOR surveys and a draft management plan; A site condition survey using DAFOR assessments (GWT 2007); and a site description with species (Heathcoate, 2015).

7.2.1 Restoring Cheltenham's Escarpment Grassland Project Improvements

As part of National Grid funded works, improvements to the site have been made over the three-year funded period. These include felling many ash trees where shading grassland, and some for safety reasons. Removal of some scrub encroachment within grassland habitat has been a priority, as has 'Robomowing' Tor grass thatch from sensitive grasslands.

Ravensgate Common Map 1: Habitats



Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors.,Map data ©2015 Google
Habitat parcels adapted from Gloucestershire Wildlife Trusts Habimapping site assessment

8 Features and Their Key Attributes

8.1 Features Selection

In line with CMS guidelines (Alexander, 2020), **Features** were selected based on international, national, local, and site-based criteria, and priorities from legislation, policies, plans and stakeholder advice, including the steering group and the Cotswolds National Landscape ecologist.

Reference has been made to the previous 2003 and 2004 management plans, Natural England's SSSI citation and monitoring reporting, as well as HLS documentation, updated survey results in 2003 and 2004, and information provided by consultees and stakeholders for information on notable species recorded at the sites.

An initial longer list was assessed and features selected against these criteria with features identified as being of **High and Medium priority** included in the plan. **For the long list** refer to **Appendix 2.** Those hi-lighted yellow in the table have been selected for inclusion.

Features (notified features of designated sites or other key features based on policies and plans) are listed below, together with descriptions of each and are then grouped together where relevant for the purposes of the Management Plan.

Attributes are considered to be qualities – characteristics of the feature which are desirable, such as where these are linked to Favourable Condition assessments, and can be monitored to give evidence about the condition of the feature.

Factors have the potential to change features, or the way features are managed. A key factor across the plan's features will be climate change.

8.2 Habitat Features: Leckhampton Hill & Charlton Kings Common

High Priority

SSSI Citation:

- Scrubby grassland with sunny woodland / scrub clearings and Primrose *Primula vulgaris* and Cowslip *Primula veris* – essential habitat for Duke of Burgundy Butterfly.

Natural England SSSI Statutory Monitoring Feature:

- Lowland calcareous grassland 'CG-5'.

SSSI Citation, plus Cotswold Nature Recovery Plan High Priorities:

- Calcareous grassland (sheltered / south facing) with Kidney Vetch *Anthyllis vulneraria* – essential habitat for Small Blue butterfly (CNRP description 'ancient, unimproved limestone grassland for its exceptional flora and invertebrate assemblage')
- Calcareous grassland (sheltered / south facing) with Horseshoe Vetch *Hippocrepis comosa* – essential habitat for Chalkhill Blue butterfly (CNRP description 'ancient, unimproved limestone grassland for its exceptional flora and invertebrate assemblage').

CNRP High Priority Categories:

- Unimproved botanically-rich lowland limestone grassland – Common Land designation
- Unimproved botanically-rich lowland limestone grassland – CG5a & b Tor Grass / Upright Brome grassland
- Unimproved botanically-rich lowland limestone grassland – grassland with scattered mature trees
- Unimproved botanically-rich limestone grassland – grassland with scattered immature trees
- Unimproved botanically-rich lowland limestone grassland – grassland with scattered scrub

- Neutral grassland with calcareous influences – species-rich MG5 on deeper plateau soils with e.g. Common Spotted Orchid *Dactylorhiza fuschii*
- Dense hawthorn / blackthorn scrub – bird habitat (CNRP description 'scrub and scrub edge habitats associated with and in balance with ancient 'unimproved' limestone grassland for their resident species and species that use them for overwintering and migration')
- Veteran / over mature and veteranised trees including Ash *Fraxinus excelsior* (CNRP description 'veteran trees for their deadwood invertebrates')
- Boundary hedgerows with frequent Ash (CNRP description 'woodland edge and / or scrub ecotone, hedgerows, and hedgerow and field trees for their resident species and / or species that use them for migration or overwintering')
- Boundary hedgerows (general) (CNRP description 'woodland edge and / or scrub ecotone, hedgerows, and hedgerow and field trees for their resident species and / or species that use them for migration or overwintering')
- Quarry spoil with biological interest 'flora of open ground and moderately bare ground (CNRP description 'areas of thin soils, rocky areas, disturbed ground, and dry-stone walls for their specialised flora and fauna').

Partnership Project / Funded Project Targets:

- Duke of Burgundy Butterfly: DoB Conservation funded grassland / scrub project areas requiring management and monitoring
- Adder: GWT funded grassland / scrub project areas requiring management and monitoring – further details of two project areas to be provided by GWT.

Legally Protected Habitat Areas:

- Badger setts
- Hazel Dormouse confirmed, or connected habitat with records – scrub, woodland, tall herbs, and adjacent habitat including grassland that may be used for winter hibernation
- Caves supporting bat roosts
- Rock face crevices supporting roosting bats

- Tree crevices and hollows supporting roosting bats
- Trees, scrub, or grassland supporting nesting birds
- Rock faces supporting nesting birds.

Key habitat important for the character, and as shelter and mosaic habitat for species:

- Bramble scrub
- Gorse scrub.

High Priority Attributes of Features:

- Mosaic of habitats including scrub, mixed height grassland, and walls / boulders / scree for reptiles as well as providing adjacent required habitats for invertebrate lifecycles.

Medium Priority

- Improved farmed grassland of layback land – species-poor agricultural grassland – Hopkins field – potential to enhance to higher value habitat and to enhance connectivity within main site.
- Amenity grassland or neutral grassland with calcareous features – Daisybank Lane Meadow – potential to enhance to higher value habitat and to enhance connectivity with main site
- Drystone walls – CNRP High Priority but requiring low level management (CNRP description 'areas of thin soils, rocky areas, disturbed ground, and dry-stone walls for their specialised flora and fauna').

8.3 Habitat Features: Ravensgate Common

High Priority

Local Wildlife Site Citation:

- Species rich semi-improved grassland
- Botanically rich lowland limestone grassland on north-facing slopes – CG5a & b Tor Grass / Upright Brome grassland.

CNRP High Priority Categories:

- Calcareous grassland (sheltered / south facing) with Kidney Vetch – essential habitat for Small Blue butterfly (CNRP description 'ancient, unimproved limestone grassland for its exceptional flora and invertebrate assemblage')
- Calcareous grassland (sheltered / south facing) with Horseshoe Vetch – essential habitat for Chalkhill Blue butterfly (CNRP description 'ancient, unimproved limestone grassland for its exceptional flora and invertebrate assemblage')
- Unimproved botanically-rich lowland limestone grassland – Common Land designation
- Unimproved botanically-rich lowland limestone grassland – CG5a & b Tor Grass / Upright Brome grassland
- Unimproved botanically-rich lowland limestone grassland – grassland with scattered mature trees
- Unimproved botanically-rich limestone grassland – grassland with scattered immature trees
- Unimproved botanically-rich lowland limestone grassland – grassland with scattered scrub
- Neutral grassland with calcareous influences – species-rich MG5 on deeper plateau soils with e.g. Common Spotted Orchid
- Dense hawthorn / blackthorn scrub – bird habitat (CNRP description 'scrub and scrub edge habitats associated with and in balance with ancient 'unimproved' limestone grassland for their resident species and species that use them for overwintering and migration')
- Veteran / over mature and veteranised trees including ash (CNRP description 'veteran trees for their deadwood invertebrates')
- Boundary hedgerows with frequent ash (CNRP description 'woodland edge and / or scrub ecotone, hedgerows, and hedgerow and field trees for their resident species and / or species that use them for migration or overwintering')

- Boundary hedgerows (general) (CNRP description 'woodland edge and / or scrub ecotone, hedgerows, and hedgerow and field trees for their resident species and / or species that use them for migration or overwintering')

Partnership Project / Funded Project Targets:

- Duke of Burgundy Butterfly – DoB Conservation funded grassland / scrub project areas requiring management and monitoring.

Legally Protected Habitat Areas:

- Badger setts
- Hazel Dormouse confirmed, or connected habitat with records – scrub, woodland, tall herbs, and adjacent habitat including grassland that may be used for winter hibernation
- Tree crevices and hollows supporting roosting bats
- Trees, scrub or grassland supporting nesting birds

High Priority Attributes of Features:

- Mosaic of habitats including scrub, mixed height grassland and walls / boulders / scree for reptiles as well as providing adjacent required habitats for invertebrate lifecycles.

Key habitat important for the character and as shelter and mosaic habitat for species:

- Bramble scrub
- Gorse scrub

Medium Priority

- Drystone walls – CNRP High Priority but requiring low level management (CNRP description 'areas of thin soils, rocky areas, disturbed ground, and dry-stone walls for their specialised flora and fauna')
- Woodland with birch *Betula pendula* and sallow *Salix cinerea*.

8.4 Floral Features: Leckhampton Hill and Charlton Kings Common

Floral species of particular importance that have been recorded at the site: fly orchid, purple milk vetch, musk orchid, meadow clary, ivy broomrape, white helleborine, and greater butterfly orchid.

High Priority

SSSI Monitoring Features and CNRP High Priority Features:

- Grassland flora – fly orchid *Ophrys insectifera*
- Grassland flora – purple milk vetch *Astragalus danicus* (no records identified through the records search)
- Grassland flora – musk orchid *Herminium monorchis*
- Grassland flora – meadow clary *Salvia pratensis (not recorded in recent years).*

SSSI Citation Features and CNRP High Priority Features:

- Woodland flora – white helleborine *Cephalanthera damasonium* (no records identified through the records search).

SSSI Citation Features:

- Woodland flora – ivy broomrape *Orobanche hederae* (no records identified through the records search)
- Woodland flora – greater butterfly orchid *Platanthera chlorantha (although populations at the site are noted to occur on scrub / grassland edge and scarp face – Mark Dowie, pers. Comm., this remains a feature of the citation at the time of writing).*

SSSI Citation Species as a 'sub feature' of habitats:

- Common dog violet – habitat for pearl-bordered fritillary (a*lthough none of these butterflies have been recorded at the site since 1989 (Mark Dowie), this remains a feature of the citation at the time of writing).*

8.5 Floral Features: Ravensgate Common

No records of any particular floristic species of national or local importance have been recorded at the site.

8.6 Faunal Features: Leckhampton Hill & Charlton Kings Common

Faunal species of particular importance that have been recorded at the site: Duke of Burgundy, small blue, chalkhill blue, pearl-bordered fritillary, slender-footed robber fly, Roman snail, glow-worm, meadow pipit, grasshopper warbler, adder, grass snake, common lizard, slow-worm, badger, dormouse, horseshoe bats.

High Priority

SSSI Citation Features:

- Scrub birds – meadow pipit *Anthus pratensis*
- Scrub birds – grasshopper warbler *Locustella naevia*

Invertebrates (butterfly) – pearl-bordered fritillary *Boloria Euphrosyne* (no records identified through the records search - *Although none of these butterflies have been recorded at the site since 1989 (Mark Dowie), this remains a feature of the citation at the time of writing*).

CNRP Priority Features and Legally Protected and Project Funded Species for Monitoring:

- Reptiles – adder.

Project Funded Species for Monitoring:

- Duke of Burgundy butterfly.

Legally Protected Species:

- Reptiles – other species; slow-worm, common lizard, grass snake
- Badger
- Hazel Dormouse
- Horseshoe bat species

- Crevice-roosting bat species
- Roman snail

Nationally Scarce, Red Data Book, Important National and Local Location:

- *Epermenia profugella* - a moth

Nationally Scarce B, Important Local Location:

- *Nemophora minimella* – a moth
- *Scythris grandipennis* – a moth
- *Aethes hartmanniana* – a moth.

Medium Priority

SSSI Citation Features:

- Small Blue butterfly *Cupido minimus*

Flagship Popular Species with Potential for Monitoring:

- Glow-worm *Lampyris noctiluca.*

8.7 Faunal Features: Ravensgate Common

Faunal species of particular importance that have been recorded at the site: Duke of Burgundy, Small Blue, Chalkhill Blue, Roman Snail, leaf beetles *Galercua tanaceti* and *Phyllotreta atra*, Adder, Common Lizard, Slow worm.

High Priority

Legally Protected and Project Funded Species for Monitoring:

- Reptiles – adder.

Project Funded Species for Monitoring:

- Duke of Burgundy butterfly.

Legally Protected Species:

- Reptiles – other species; Slow-worm, Common Lizard, Grass Snake
- Badger

- Hazel Dormouse
- Horseshoe bat species
- Roman Snail.

Medium Priority

Flagship Popular Species with Potential for Monitoring:

- Glow-worm *Lampyris noctiluca.*

8.8 Features: Final List for Action Planning

See **Appendix 2** for details of Priority Features and how these were selected from guidance relating to legislation and policy and combined as features to include in the plan.

Features are listed as key habitats requiring management, with **species** as 'Sub Features' below each relevant habitat. These features relate to both sites:

Species-rich Calcareous Grassland

- Duke of Burgundy butterfly
- Key Invertebrates of Species-rich Calcareous Grassland
- Key Flora of Species-rich Calcareous Grassland

Calcareous Grassland and Scrub Mosaic

- Roman snail
- Key Invertebrates of Grassland and Scrub Mosaic
- Reptile Assemblage of Grassland and Scrub Mosaic

Semi-improved Grassland

Scrub

- Protected Species Using Scrub Habitat (including nesting birds, badger, dormouse etc.)

Trees (including veteran, over mature, and veteranised trees)

- Protected Species Using Tree Features (Including nesting birds, bats)

Rock Exposure

- Protected Species Using Rock Exposure Features (Including nesting birds, bats)

Drystone Walls

Hedgerows

Woodland

9 Evaluation of Factors Affecting Features and Rationale for Management

For this section, all gathered information on the condition of features, and factors that may affect them, has been reviewed, from document reviews, consultations, updated survey, and records searches.

The following definitions are referred to, from the CMS Guide to Management Planning (2020).

> **Factors** – anything that has the potential to influence or change a feature – or to affect the way a feature is managed.
>
> **Rationale** – assessing the condition of features – considering status and current conservation management and assessing the relationships between the condition of features and factors, and their implications.

9.1 Leckhampton Hill and Charlton Kings Common

9.1.1 Natural England's Views About Management

Natural England's **'Views About Management'** and **'List of Operations Requiring NE Consent'** can be found in **Appendix 3**. They include:

Calcareous Grassland**:**

> *'in order to maintain a species-rich sward and its associated insects and other invertebrates, calcareous grassland requires active management'*
>
> *'…grazing…should aim to keep a relatively open sward without causing excessive poaching. Light trampling can be beneficial by breaking down leaf litter and providing bare patches for seed germination and some invertebrates. An element of managed scrub both within and fringing calcareous grassland, can be of great importance. No other management should be routinely required. The application of pesticides, including herbicides, or any fertilizer, would be damaging and should be avoided*.

Disused quarries, pits and cuttings:

> '*Most disused quarries need active management to maintain exposure of the important geological features'….'management usually involves periodic clearance of vegetation and rock debris*.'

9.1.2 Natural England Condition Assessments

Chapter 15 defines the concept of **'Favourable Conservation Status'** (FCS), the term used by Natural England to describe the ideal condition and extent of the totality of Lowland Calcareous Grassland in England.

It also describes the way in which Natural England's **Condition Assessments** of Sites of Special Scientific Interest (SSSIs) are carried out, to show whether the site is in 'Favourable', 'Unfavourable Recovering', 'Unfavourable No Change', or 'Unfavourable Declining' condition.

Assessments are made using published **Common Standards Monitoring** (CSM) protocols: 'Monitoring condition of lowland grassland SSSIs - Part 1: English Nature's rapid assessment method' (English Nature Research Report 315), H J Robertson, R G Jefferson, 2000.

9.1.3 Natural England Conservation Assessment

A review of the SSSI details on Natural England's website in summer 2024 provided a summary of the conservation status of the key features for the SSSI, although it is noted that the assessment dates are now some 11 – 12 years old.

Leckhampton Hill and Charlton Kings Common SSSI

Unit	Unit name	Condition	Condition Threat Risk	Habitat	Area (ha)	GridRef
001	LECKHAMPTON HILL	Favourable	High	CALCAREOUS GRASSLAND - Lowland	15.3559 ha	SO 946 181
002	CHARLTON KINGS (WEST AND CENTRAL)	Unfavourable - Recovering	High	CALCAREOUS GRASSLAND - Lowland	20.9569 ha	SO 955 186
003	CHARLTON KINGS (EAST)	Favourable	High	CALCAREOUS GRASSLAND - Lowland	10.2165 ha	SO 961 184
004	GEOLOGY	Favourable	Medium	EARTH HERITAGE	12.5076 ha	SO 950 184
005	LILYBROOK GOLF CLUB LAND	Unfavourable - Declining	No identified Condition Threat	CALCAREOUS GRASSLAND - Lowland	4.6713 ha	SO 962 184
WSU	Whole Site Unit		No identified Condition Threat		63.7081 ha	SO 953 184

Within the scope of this Management Plan, the units that are within-site and relate to biological interest are units 1 to 3: Unit 1, 'Leckhampton Hill' and Unit 3 'Charlton Kings

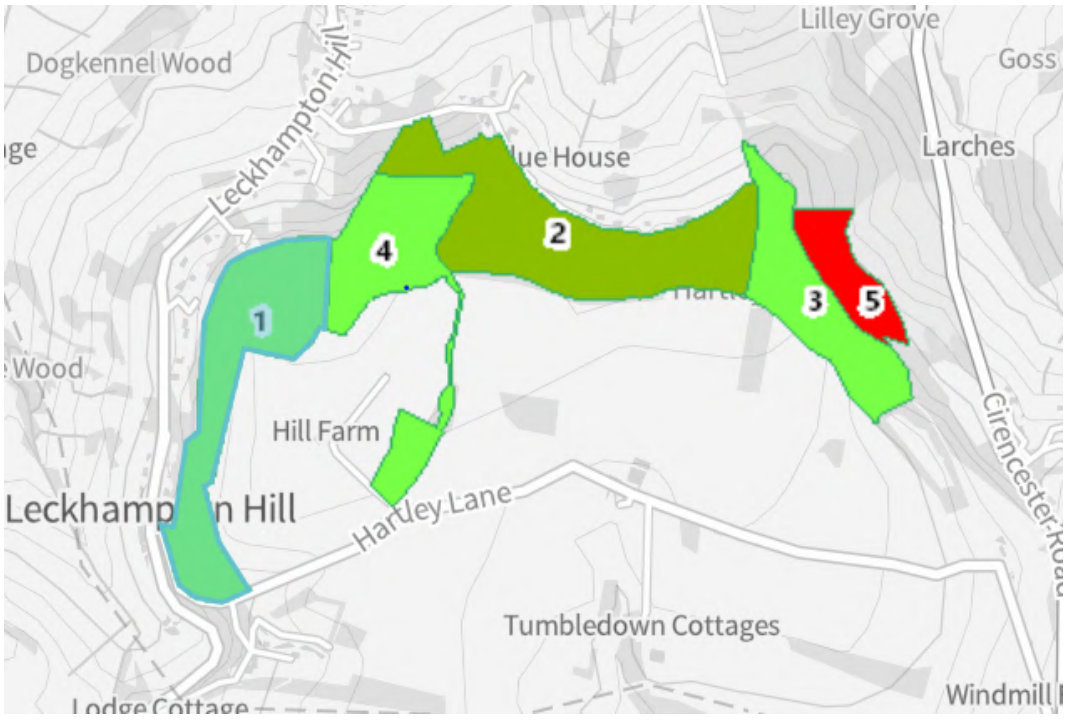
East' are assessed as being in 'Favourable' condition, whilst Unit 2, 'Charlton Kings West and Central' is assessed as being in 'Unfavourable – Recovering' condition. There is a 'high' condition threat risk for all three areas. The following threats (factors) are identified for the site as a whole:

Leckhampton Hill and Charlton Kings Common SSSI - Pressures

Broad pressure	Pressure	Pressure identified	Risk	Pressure status
Land Management	Cutting / Mowing / Cultivation Regime	03/11/2017	High	Active
Earth Science Impacts	Feature Obstructed - Vegetation	10/01/2013	Medium	Potential
Land Management	Undergrazing	23/10/2012	High	Potential

Feature name	Condition date	Condition status	Comment
ED - Aalenian - Bajocian	19/03/2013	Favourable	This baseline feature condition has been calculated from the historic unit-specific conditions. The condition assigned to the feature is the least favourable of the unit-specific conditions previously recorded for the feature. The status date is the assessment date of the lowest ranking assessment.
Lowland calcareous grassland (CG3-5)	04/09/2012	Unfavourable - Declining	This baseline feature condition has been calculated from the historic unit-specific conditions. The condition assigned to the feature is the least favourable of the unit-specific conditions previously recorded for the feature. The status date is the assessment date of the lowest ranking assessment.
Population of nationally scarce butterfly species - Hamearis lucina, Duke of Burgundy	01/01/1900	Not Recorded	This is a default baseline feature condition assessment added because there was no unit-specific condition available.
Scrub	04/09/2012	Unfavourable - Declining	This baseline feature condition has been calculated from the historic unit-specific conditions. The condition assigned to the feature is the least favourable of the unit-specific conditions previously recorded for the feature. The status date is the assessment date of the lowest ranking assessment.
Vascular plant assemblage	04/09/2012	Unfavourable - Declining	This baseline feature condition has been calculated from the historic unit-specific conditions. The condition assigned to the feature is the least favourable of the unit-specific conditions previously recorded for the feature. The status date is the assessment date of the lowest ranking assessment.

The Unit areas are illustrated below, extracted from MAGIC mapping



Detailed unit assessment findings, undertaken in 2012, from Natural England's website were as follows:

Unit 1

Condition Assessment (2012)

- The 2012 assessment found a high number of positive indicators (10 Frequent, 2 Occasional and 6 Rare), a reasonable herb to grass ratio (50%), a high but favourable average sward height (9.5 cm), low numbers of weed species, and an appropriate level of bare ground (3%).
- However, scrub was occasional throughout the sward and grass litter (40%) failed the assessment but was not a mandatory feature. Additionally, the physically challenging nature of the site means that the choice of assessment stops would tend to favour more accessible parts of the unit which arguably are more likely to be better managed.
- Suitable grassland and scrub habitat and structure. Suitable conditions for both the scrub-edge and grassland vascular plants were also present. No species surveys were carried out. This unit can still be considered as 'Favourable', but borderline.
- There is a high risk to 'Favourable' condition from scrub encroachment and build-up of grass litter, although more survey work is required to determine the status of the notified species.

Management Recommendations (2012)

The following should be considered to prevent this unit from falling out of 'Favourable' condition:

- Investigate areas that may be suitable for electric-fenced paddocks
- Where grazing is not feasible, grass cutting (and removal) would be a reasonable alternative
- Initiate a programme of scrub management to stop the further encroachment of scrub onto the open grassland. There will be areas that are too inaccessible to manage but will still contribute to the diversity of the SSSI; for example, pockets

of longer sward, scrub, and steep scree slopes which will benefit invertebrates as well as specialist grassland plants.

- The recording of notable species will help to guide future, more targeted, site management work.

Unit 2

Condition Assessment (2012)

- The 2012 assessment sees a further improvement, with positive indicators at Frequent 8, Occasional 2, and Rare 8 (from Frequent 6, Occasional 5, Rare 6), herbs to grass ratio still borderline at 40%, but grass litter significantly down from 30% to 14%.
- Suitable grassland and scrub habitat and structure was present for Duke of Burgundy, although cowslips were recorded as rare. Suitable conditions for both the scrub edge and grassland vascular plants were also present. No species surveys were carried out, although musk orchids were observed as part of the grassland survey.
- Scrub (which is a mandatory attribute) was recorded as frequent within the sward and for this reason the unit is considered to be 'Unfavourable Recovering' due to the positive management.

Management Recommendations (2012)

The following should be considered to achieve Unit 2 in 'Favourable' condition:

- Continue to increase the grazing pressure over the Common to reduce sward height and increase floral diversity
- Continue the programme of scrub management across the Common
- Continue the annual monitoring of the unit to advise on the success of the management.
- The recording of notable species will help to guide future, more targeted, site management work.

Unit 3

Condition Assessment (2012)

- The 2012 assessment sees further improvement, with positive indicators at 10 Freq, 1 Occasional, and 5 Rare (from 8 Freq, 2 Occasional and 7 Rare), herb to grass ratio at 51%, and grass litter significantly down from 40% to 11%.
- Suitable grassland and scrub habitat and structure was present for Duke of Burgundy, although cowslips were recorded as rare. Suitable conditions for both the scrub edge and grassland vascular plants were also present. No species surveys were carried out.
- Scrub was recorded as occasional within the sward, so the unit can be considered to be 'Favourable', but borderline.

Management Recommendations (2012)

The following should be considered to maintain Unit 3 in 'Favourable' condition:

- Continue to increase the grazing pressure over the Common to reduce sward height and increase floral diversity
- Continue the programme of scrub management across the Common
- Continue the annual monitoring of the unit to advise on the success of the management.
- The recording of notable species will help to guide future more targeted site management work.

9.1.4 HLS Agreement Grassland Management Plan for HLS Agreement (2012)

The 2012 Management Plan (Harvey, J.) for the HLS application identifies issues for the site through several smaller geographical areas, based on compartments within the 2003 Management Plan. Some key points from this are:

- Scrub clearance was considered to be the only option for increasing grassland extent at the site and would need to consider timing and methods around requirements of key plants and animals (birds). The value of scrub as a habitat within the site is noted with a desire, where possible, to achieve successional scrub including mixed height and more established dense areas.

- The value of mixed mosaic habitats is recognised in that maintaining some areas of taller grasses and scrub with scattered bushes and trees was potentially desirable.
- Noting the recreational impacts of visitors to the Cotswold Way and more generally with walkers, dogs, and other site users that lead to localised trampling and potential issues with cattle disturbance on the site.
- The western end of the plateau was considered to be relatively species poor, and with bramble encroachment and small varieties of shrubs. (The 2023-24 surveys by A S Ecology noted several areas of non-native species here, although management would be constrained by the steep terrain).
- The western end of the plateau had been previously cut for hay and ungrazed before 2012.
- Steep sections could not be grazed or safely accessed by cutting machinery.
- Within the 'upper scarp slope' - east and central upper areas – gorse regrowth had been slow after a major fire in 2004.

9.1.5 Management of gorse by FOLK group

- The FOLK group and contractors manage gorse clearance largely on rotational clearing of smaller areas, with contractors in 2023 and 2024 carrying out larger scale works, cutting and burning more dense stands on harder to reach upper slopes.

9.1.6 Sustainable Farming Incentive (SFI) agreement 2023

An application for a Defra SFI Agri-environment agreement was made in 2023 and contains agreement details including:

- *Grassland – there is a set maximum stocking density of 1 Livestock Unit (Lu) per hectare (Ha) per year.*
- *Scrub management work must be done between 1 October and 28 February, outside the bird-nesting season.*
- *From the 1st year, manage the sward by grazing and/or cutting to achieve a sward height of between 2cm and 15cm in March.*

- *In addition, manage the grassland by grazing with cattle extensively for the majority of the year in order to achieve the indicators of success and to support the aim to get the SSSI in to recovering or Favourable Condition - see additional Feature Specific Management Requirements and Indicators of Success for Specific Requirements for each Parcel.*
- *Do not carry out any mechanical operations between the 1st of April and 15th July. This includes cutting for hay and topping.*
- *There must be no application of nutrients such as fertilisers, other organic manures or waste materials including sewage sludge.*
- *There must be no supplementary feeding unless agreed in writing in advance with NE.*
- *Control undesirable species such as Creeping Thistle, Spear Thistle, Curled Dock, Broad-leaved Dock, Common Ragwort or Common Nettle, so that by year 4 their overall cover is less than 5% of the area. This should then be maintained throughout the remainder of the agreement. Agree all methods of control with your Natural England Adviser.*
- *Retain all standing and fallen dead wood over 20cm in diameter unless it presents a genuine safety hazard*
- *In years 2 to 5, follow a programme/plan, to be produced during first year of agreement, and agreed with your NE Adviser, of rotational scrub management.*
- *Never manage more than 15% of the site in any one year and never completely eradicate scrub from the site.*

Grazed areas of SSSI grassland, i.e. Charlton Kings Common (8152) - Feature Specific Management Requirements and Indicators of Success (extracts from the text below).

Charlton Kings Common will be perimeter fenced (or drystone walled) subject to Planning Inspectorate consent and grazed with Dexter cattle to achieve favourable condition. Some areas, such as the top plateau, may also be cut and the arisings removed in agreement with Natural England.

Grazing should remove the previous year's growth to prevent the build -up of dead grass (thatch). National guidance suggests that a calcareous grassland site of 30 ha would require 30 Dexters (based on each Dexter being 0.5 of a livestock unit) grazing for 52 weeks per year. However, due to the very challenging terrain, the very coarse grass in places and the need to ensure suitable conditions for longer sward/scrub species, it is acceptable for the grazing pressure to be less than this initially but increased steadily over the years and reviewed annually.

Grazing will have to increase from current levels though and cattle should remain on site for as much as the year as possible (without causing damage to the sward).

Also, supplementary feeding should only be allowed in exceptional circumstances. This, together with the stock staying on the rough grass for as much of the year as possible, will help them to adapt to the rough grass and therefore maintain weight. Guidance on conservation grazing is available from Natural England and the Cotwolds Grazing Animals Project.

The location of the notable species (part of the SSSI special interest feature) have been mapped and their populations should be maintained. Hence it may be necessary to review and adapt the grazing pressure in places, for example through exclosure fencing, to maintain these species. By Year 2 a grazing plan will be produced to inform future grazing management.

Scrub is an important element of the site and is important for some of the notable species mentioned above. However, under management has led to excessive scrub across the site and the programme of scrub clearance should continue. By Year 2 a scrub plan will be produced to inform future scrub management.

The below list names the indicator species for lowland calcareous grassland referred to in the above indicators of success in order to measure the outcome of the management prescriptions for restoration of species–rich grassland:

Indicator species: Betony; Bloody cranesbill; Carline thistle; Clustered bellflower; Common bird's-foot-trefoil; Common rock-rose; Cowslip; Dropwort; Devil's-bit scabious; Eyebright; Fairy flax; Gentians; Greater knapweed; Hairy violet; Harebell; Hoary plantain; Hoary rock-rose; Horseshoe vetch; Kidney vetch; Lady's bedstraw; Milkworts; Mouse-ear hawkweed; Orchids; Oxeye daisy; Purple milk-vetch; Rough/Lesser hawkbit; Salad burnet; Saw-wort; Small scabious; Squinancywort; Dwarf thistle; Thyme-leaved sandwort; Wild basil; Wild marjoram; Wild thyme; Yellow-wort.

The below list names the indicator species for lowland calcareous grassland referred to in the above indicators of success in order to measure the outcome of the management prescriptions for restoration of species–rich grassland:

Indicator species: Betony; Bloody cranesbill; Carline thistle; Clustered bellflower; Common bird's-foot-trefoil; Common rock-rose; Cowslip; Dropwort; Devil's-bit scabious; Eyebright; Fairy flax; Gentians; Greater knapweed; Hairy violet; Harebell; Hoary plantain; Hoary rock-rose; Horseshoe vetch; Kidney vetch; Lady's bedstraw; Milkworts; Mouse-ear hawkweed; Orchids; Oxeye daisy; Purple milk-vetch; Rough/Lesser hawkbit; Salad burnet; Saw-wort; Small scabious; Squinancywort; Dwarf thistle; Thyme-leaved sandwort; Wild basil; Wild marjoram; Wild thyme; Yellow-wort.

Additional management prescriptions the refer to the areas of *ungrazed* SSSI grassland, ie Leckhampton Hill Common (6228) and Brownstones Quarry (1005) are below:

This management is intended to benefit the following features:

- Species-rich calcareous grassland and associated species
- Geological features.

Feature Specific Management Requirements and Indicators of Success

Leckhampton Hill is generally not suitable for livestock grazing as the quarrying activities and natural scarp slope make the terrain too steep. Hence cutting (and gathering where practicable such as on the hill fort plateau) is the main form of management. Rabbit grazing and the skeletal soils also help to keep areas species-

rich. Only sections of this unit can be considered as the special interest calcareous grassland with other areas comprising mature scrub, woodland, scree and rock exposures. Hence this section also contributes to the geological interest of the site which is part of the special interest.

Brownstones Quarry (and the rocky exposure that runs north towards Charlton Kings Common) are notified mainly due to their geological interest. However, they do have some calcareous grassland interest which should also be maintained. Due to the skeletal soils and steepness in places, this interest is largely self maintaining. Management will, however, mainly be centred around maintaining the geological features in favourable condition.

By Year 2, a scrub management plan will be produced to inform future scrub management.

Additional management Presriptions that refer to the areas of non-SSSI grassland under grazing, ie Daisybank Field (1104) and the Reversion Fields (1329).

This management is intended to benefit the following features:

- Moderately rich calcareous grassland and associated species.

Feature Specific Management Requirements and Indicators of Success

Daisybank Field was not included in the SSSI at the time of notification but does retain a moderate calcareous grassland species interest. As such it should be grazed, or hay cut, to retain and enhance this interest. Also the Field is important lay-back land for the grazing of the SSSI grassland on Charlton Kings Common providing occasional grazing.

The Reversion Fields were reverted from arable a few years ago under the ESA scheme. A species-rich seed mix was used as the soils a very thin and such as sward would complement the SSSI grassland adjacent. The Fields should be grazed, or hay cut, to retain and enhance this interest. These too are important lay-back land for the grazing of the SSSI grassland on Charlton Kings Common providing a flat well drained area for all year round grazing.

By Year 2, a scrub plan and a grazing plan will be produced to inform future scrub and grazing management.

9.1.7 Condition Assessment 2023-4

In 2023 to 2024, scrub encroachment of important grassland habitats, by gorse in particular, has been an ongoing element of the site and will continue to be so. However, scrub is also a feature and a requirement of the SSSI designation of the site and provides valuable habitat for species.

The presence of protected species has become an issue during recent access and drystone wall restoration works and some of these, particularly bats, other mammals, reptiles and Roman snails, have apparently not been part of targeted survey effort in the past to the degree that some plants, birds, and invertebrates have. Identifying on site records of these would help in assessing risks of planned works as well as conservation monitoring.

The site has a wide range of key issues – archaeology, geology, landscape value, and recreational use (including down-hill cycling, hang gliding etc.), littering, and introduction of invasive non-native species, which affect the site's ecological management.

The steep nature of many parts of the site affects the management options available.

9.1.8 Geology: Leckhampton Hill and Charlton Kings Common

Natural England has highlighted that it will have management priorities regarding geology to input to the site's management – to be informed by updated advice from them after their 2024 – 25 planned site visits by specialists (no details available at time of publishing).

9.2 Ravensgate Common

The 2004 management plan (Just Ecology) noted that species diversity at the site is higher in areas of higher structural diversity, The top of the hill at the north-west of the site was highlighted as a particularly species rich area, with autumn gentian *Gentianella amarella*, dwarf thistle *Cirsium acaule*, small scabious *Scabiosa columbaria*, and devil's-bit scabious *Succisa pratensis* noted.

A moss-dominated area was noted mid-way down the steeply sloping site, with dominant species *Rhytidiadelphus squarrosus* and *Pseudoscleropodium purum, with* Roman snail being present in these damper areas. Heavy rabbit grazing was noted. Recent sheep grazing was recorded at the west end of the site, with the east end of the plateau being observed as rank and under-grazed.

The S.W. plateau area was reported to have anecdotal evidence of agricultural improvement by fertiliser around 1984. More heavily sheep-grazed shorter grass was observed here. Gorse scrub formed dense blocks and edge effect of woodland blocks encroaching on adjacent grassland was also noted to require careful management.

In 2023 and 2024, rabbit grazing was noted to be much reduced, although deer grazing is a factor. Cattle grazing over winter 2023 to 2024 had been restricted by wet weather, although the introduction of 'Nofence' collars in 2024-25 improved access by the cattle to previously less favoured areas.

Information held by GWT in relation to the Local Wildlife Site is largely more historic with updates in 2010 and 2009 for butterfly survey, the latter describes the site as unimproved grassland with scrub and bramble at the base, being cut on top of the plateau in summer and with periodical cutting of scrub by the footpath north-east of the site and grazing due to be introduced in 2009. A Higher-Level Stewardship application was proposed that year and ran for 10 years until 2019.

A 2012 condition monitoring survey recorded sheep grazing and taller vegetation than the target of 2-15 cm. An overall 15 to 20% approximate scrub ratio was recorded in comparison to a target of 10%.

In 2023 to 2024, evidence of ash encroachment onto the steep central area of the slope was present, but the majority of saplings have died back apparently due to *Chalara* disease - recent intervention has occurred near the base of the slope to the eastern end where hazel clearance has taken place. Wild clematis is a problem species on this site as it has become dominant in areas over the base of the slope.

The presence of protected species has become an issue during recent access works and some of these, particularly bats, other mammals, reptiles, and Roman snails, have apparently not been part of targeted survey effort in the past to the degree that some plants, birds and invertebrates have. Identifying on-site records of these would help in assessing risks of planned works as well as conservation monitoring.

The recreational use of the site is far less than on Charlton Kings Common, being mostly restricted to long-distance walkers, local residents, and some horse riders. Littering is a perpetual but relatively small-scale issue.

The steep nature of many parts of the site affects the management options available.

9.3 Both Sites

The following guidance adopted by Cotswolds National Landscape is applicable to the management of grassland, scrub, and dry-stone wall habitats at both sites.

9.3.1 Cotswolds Nature Recovery Plan 2021

- Manage wildflower grasslands according to the broad requirements of the habitat whilst allowing for the specialist needs of any priority species. Ensure that grazing and or cutting with the removal of the cuttings prevents nutrient levels from building. Winter grazing or light grazing all year round will suit many sites.
- Consider utilising traditional and rare breeds, particularly the Cotswolds sheep known locally as the lion which require conservation effort in their own right. Many rare breeds such as Gloucester cattle are hardy and well suited to conservation grazing.

- Collar-based virtual fencing is a rapidly developing technology which provides greater control over grazing animals enabling grazing to be focused where and when it is needed to achieve the best conservation outcomes.
- Prevent scrub from overrunning wildflower grasslands.
- Manage scrub to create a varied age and physical structure including glades and scalloped edges. Encourage juniper where it is present and introduce it to new sites where appropriate.
- Create new wildflower grasslands where they best improve ecological connectivity. Arable can be reverted to wildflower grassland through seeding and 'semi-improved' permanent pasture can be diversified by harrowing and over seeding. Wildflower limestone grasslands can be restored on the slopes, and high wold and wildflower-rich wet grasslands in the valley bottoms.
- Create new large areas of extensively grazed grassland where natural processes are allowed to create a complex mosaic of habitats.
- Value dynamic scrub and complex grassland/woody mosaic habitats and resist the perception of them as being unmanaged, neglected, messy, or overgrown.
- Use seed sources of local provenance for the creation of new wildflower grasslands. Consider growing and planting plugs for species such as devil's bit scabious that do not respond well to introduction as seed.
- Within the creation of new grassland sites, consider the creation of a more varied physical ground structure similar to the lumps and bumps of historic delves. Seek opportunities to include areas of bare ground and thin skeletal soils along with rocky bare and disturbed ground and a variety of aspects and gradients. The restoration of quarries provides opportunities to do this although it can also be done on any new habitat. Check with your local Historic Environment Record (HER) or Local Authority Archaeology Service before undertaking ground works.
- Maintain and restore dry stone walls.
- Look for opportunities for wildflower grassland and scrub restoration and management on road verges and avoid using topsoil for new verges.

- Maintain hedgerows in a thick and tall condition. Lay or coppice them (with protection from livestock) on a long rotation to regenerate them when they show signs of becoming gappy.
- Avoid trimming hedgerows, if possible, by allowing them to grow before coppicing or laying on rotation. Trimming can considerably prolong the period between the need to lay or coppice. If necessary, trim to a high 'A' profile or just trim one side a year. Avoid trimming during the nesting season and before the berries have been eaten.
- Promote and retain hedgerow and field trees. Consider including native fruit species as hedgerow trees to provide nectar for insects in the spring and food for birds in the summer and autumn.
- Allow some hawthorn in hedges and on slopes to grow on, to become trees and flower, providing a spring nectar source.

9.3.2 Cotswolds National Landscape Management Plan 2025 – 2030

Policy CC2: Climate change – adaptation

- CC2.1. The risks posed by the consequences of climate change should be reduced through a range of adaptation measures, including those identified in:
    - relevant policies of this Management Plan. (including but not limited to; CE1, CE7, CE8, CE9, CE10, CE11, CE12, & CE13)
    - the CNL Climate Change Strategy (2022)
- CC2.2. Climate change adaptation should be a significant driver in the design of all new development, infrastructure, and transport provision.
- CC2.3. Climate change adaptation should be a key component of land management practices, environmental land management and rural development support mechanisms in the National Landscape.
- CC2.4. Further research into the predicted impacts of climate change on the CNL should be undertaken. This research should be used to advise and inform sustained behavioural change to adapt to climate change and conserve and enhance the National Landscape and its special qualities.

Policy CE8: Nature recovery and biodiversity

- CE8.1. Biodiversity (including the abundance of wildlife) in the Cotswolds National Landscape (CNL) should be conserved and enhanced by establishing a coherent and resilient nature recovery network across the CNL and in its setting. This should be achieved in accordance with the outcomes, priorities, targets and measures within the Cotswolds Nature Recovery Plan and Local Nature Recovery Strategies (LNRSs) and focus on the priority species and habitats listed in Appendix 8. The relevant LNRs are i) Gloucestershire ii) Oxfordshire iii) Warwickshire iv) West of England v) Wiltshire vi) Worcestershire.
- CE8.2. Policy and strategic documents that are likely to impact on the biodiversity of the CNL should have regard to the CNL Management Plan and guidance including the Cotswolds Nature Recovery Plan and position statements. This includes but is not limited to, the following: i) Local Plans ii) Local Nature Recovery Strategies iii) Neighbourhood Development Plans iv) Green Infrastructure Strategies v) Tree and Woodland Strategies vi) Ecological Emergency and Climate Change Strategies.
- CE8.3. Proposals that have the potential to impact on the biodiversity of the National Landscape should seek to further the conservation and enhancement of this biodiversity. They should have regard to – and be consistent with – the CNL Management Plan and guidance including the Cotswolds Nature Recovery Plan. This would include, but is not limited to, the following delivery mechanisms: i) Environmental Land Management and other grant schemes and rural development support mechanisms ii) Biodiversity Net Gain iii) Payment for Ecosystem Services including but not limited to carbon sequestration and storage, flood management, water supply and water quality improvements.
- CE8.4. Stakeholders should work towards the delivery of the relevant targets for nature recovery within the national Protected Landscapes Targets and Outcomes Framework. The targets for the Cotswolds are:

- Target 1. Restore or create more than is 28,079 hectares of a range of wildlife-rich habitats outside protected sites by 2042 (from a 2022 baseline).
- Target 2. 80% Percent of SSSIs in Favourable Condition by 2042.
- Target 3. 60% Percent of SSSIs assessed as having 'actions on track' to achieve Favourable Condition by 31 January 2028.
- Target 4. Continue favourable management of all existing priority habitat already in Favourable Condition outside of SSSIs (from a 2022 baseline) and increase to include all newly restored or created habitat through Agri-environment schemes by 2042.
- Target 5. 65% to 80% of land managers adopting nature-friendly farming on at least 10% to 15% of their land by 2030 Target 8. Increase tree canopy and woodland cover by 2050 across the CNL by 4.59% of the CNL (9,367 Ha). The target for 2030 is 0.92% of the CNL (1,873 Ha).

- CE8.5. A mitigation hierarchy should be applied to development proposals whereby adverse impacts on biodiversity are: (i) avoided; (ii) mitigated; and (iii) compensated for. Development proposals should provide a net gain in biodiversity of at least 20% particularly with regard to the habitats listed in Appendix 8. Development should also deliver a net benefit to species using bespoke measures as appropriate, particularly with regard to the species listed in Appendix 8.
- CE8.6. Damage or loss of irreplaceable habitat should be avoided. Irreplaceable habitat includes but is not limited to: I. Ancient and veteran trees II. Ancient woodland (continually wooded since 1600)40 III. Ancient unimproved grassland (surviving since 1945) IV. Ancient hedgerows (present since before the Enclosure Acts, passed mainly between 1720 and 1840).
- CE8.7. Development near the habitats listed in appendix 8 should secure significant gains in the form of enhancing existing habitat condition, buffering the habitat and improving greater connectivity between similar habitats.

- CE8.8. Measures to conserve and restore biodiversity including the outcomes, priorities, targets, and measures within the Cotswolds Nature Recovery Plan should be delivered in a way that is compatible with conserving and enhancing the natural beauty of the Cotswolds National Landscape.

Policy CE11: Problem species, pests, and diseases

- CE11.1. The population of grey squirrel and deer in the Cotswolds National Landscape (CNL) should continue to be controlled and managed. This should be undertaken and coordinated at a landscape scale.
- CE11.2. National guidance – and guidance produced by the CNL Board – on Ash Dieback should be followed to ensure any measures implemented will conserve and enhance the qualities of the landscape.
- CE11.3. National and local guidance – including guidance from Government Agencies and the Non-Native Species Secretariat – on invasive non-native species, pests, and diseases should be followed and appropriate biosecurity measures promoted.

9.4 Climate Change implications

The sites within this plan offer scarce habitats in terms of limestone grasslands on their north-facing slopes. This is likely to offer valuable genetic 'islands' that will be more protected from climate change threats to heat-sensitive species than surrounding south-facing slopes. Maintaining and creating further opportunities for connectivity between habitat resources will be important in retaining species as the climate warms up and delivers more prolonged periods of wet weather.

10 Options for Management

The various options for management of the sites have been considered. To summarise these, the analysis within the 2003 LHCKC management plan is revised and updated here. Potential management options include:

- Burning
- Mowing - traditional methods
- Mowing – 'Robo-mower'
- Grazing – cattle
- Grazing – sheep or goats
- Grazing – ponies
- A combination of the above techniques

The main costs and benefits of each management method are outlined in the tables below:

Mowing / Hay Cropping - traditional methods	
Benefits	Does not conflict with other uses of the site
	Does not require fencing
	Results in attractive 'flowery' sward until cut
Costs	Depends upon the availability of a local farmer to do the cutting
	Can only take place on the flatter areas
	Access for mowing is difficult
	Unsuitable on the slopes
	Does not deal with the invasive grass species, e.g. false oat grass
	Creates a uniform sward, unsuitable for species which require long grass or open sward
	Creates a uniform sward with an unnatural appearance

Burning	
Benefits	Useful restoration tool
	Removes scrub
	Removes the build-up of the accumulated litter (dead vegetation) layer
	Creates a mosaic of long and short grass habitats

	Can be carried out in areas not accessible to machinery
Costs	Can only be undertaken in small areas
	Needs to be undertaken in combination with other management techniques
	The burn temperature is critical to the achievement of beneficial results
	Can have negative impact on invertebrate and reptile populations
	Danger of fire spreading

Note that with burning, the risks and disadvantages are considered to outweigh the benefits in most cases and that this is not an option that will be usually considered, especially at Ravensgate Common.

Grazing – sheep or goats	
Benefits	Traditional form of management for Cotswold grassland management
	Not dependent upon the nature of the terrain if appropriate stock is introduced
	Creates a mosaic of grassland habitats which benefits a range of species, although can overgraze valued habitats
	Controls coarse grasses and assists in scrub management to some degree
	Can access steeper areas than larger stock
Costs	Suitable stock can be difficult to source
	Requires fencing
	Stock requires the provision of drinking water
	The health of stock needs to be continuously monitored
	Potential conflict with other users, particularly dogs - more so than larger livestock species

Grazing - ponies	
Benefits	Traditional form of management for Cotswold grassland management
	Not dependent upon the nature of the terrain if appropriate stock is introduced
	Creates a mosaic of grassland habitats which benefits a range of species
	Controls coarse grasses and assists in scrub management
	Possible candidates for electric ‘fenceless’ collars
Costs	Suitable stock can be difficult to source
	Restrictions on movement through passport permits
	Requires fencing

	Stock requires the provision of drinking water
	The health of stock needs to be continuously monitored
	Potential conflict with other users, particularly dogs

The introduction of ‘Nofence’ collar technology is a great benefit for grazing options at both sites and enables the increase in extent and seasonal range possible for grazing across the sites.

11 Objectives

The following **Objectives** are identified through the above assessment processes for each site and feature as relevant and will be enacted through the management Action Plan. They focus on **Biodiversity features** of grassland and scrub, in particular, as has been the focus of the plan. Habitat types have the corresponding UK Habitat Classification ('UKHabs') codes and habitats used on the habitat maps, listed under each heading.

These objectives and the relevant actions will consider the objectives and actions relating to non-ecology features of the site, particularly geology, where relevant.

Where possible, objectives aim to be '**SMART**', i.e. Specific, Measurable, Achievable, Relevant, and Time-based.

The plan will follow the '**adaptive management'** approach through seasonal and annual reviews of the action plan, in line with the objectives for the features.

Objectives are separated into **Plan wide objectives, Site wide objectives,** and **objectives for each Feature –** these are then cross-referenced with the geographical habitat unit locations within the **Habitat maps** (Maps 1) illustrated in **Chapter 7,** and the **Management Maps** (Maps 2) and **Grazing Compartments Maps** (Maps 2/3) illustrated in **Chapter 12**.

Objectives contain two key elements:

- *the vision* (outcome or condition) to be achieved
- *the measurable target* to be monitored for success of the objectives

11.1 Plan wide Objectives

Vision	Measurable Target
SFI / other funded project commitments are adhered to as relevant, including seasonality of grazing and cutting, and restrictions on scrub clearance levels.	Commitments confirmed as being met through liaison with Natural England on annual review.
Strategic project targets including the Cotswolds Nature Recovery Plan and Nature Recovery Network are adhered to as relevant.	Targets confirmed as being met through liaison with the relevant partnerships on annual review.
Legal duties to protect species are followed, including obtaining specialist advice and licences where required.	Legal duties confirmed as being met through annual review of procedures against legislation.
Climate change implications for diversity and distribution of habitats and species, and relevant conservation best practice are considered and implemented as appropriate.	Management actions and best practice are confirmed as being implemented through liaising with Cheltenham Borough Council's climate strategy and officers on annual review.
Connectivity of habitats and populations of species are conserved and enhanced within and where possible outside the site, including through following wider initiatives (outside of this plan). to conserve and enhance.	Connectivity of habitats and species relating to key site Features is maintained and is enhanced within the site by year 5 and within the wider landscape by year 10, to be confirmed by annual review.
Wider initiatives (outside of this plan) to conserve and enhance populations of protected and notable species are supported and followed.	Engagement with wider initiatives to conserve and enhance populations of protected and notable species is confirmed on annual review.
Wider initiatives (outside of this plan) to control and manage the effect of invasive non-native species, pests, and diseases are supported and followed.	Engagement with wider initiatives to control and manage the effect of invasive non-native species, pests, and diseases is confirmed on annual review. Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these within the site is undertaken **where resources allow**.
Records of species, habitats and monitoring results over time, utilising GIS mapping, are collated centrally and shared with stakeholders, including the local biological records centre, as appropriate, in accordance with data confidentiality requirements.	Record keeping, sharing, and mapping confirmed through annual liaison with Cheltenham Borough Council staff.
Information on grassland and scrub habitats, and their extent and location, is	Suitable site wide surveys and / or samples of grassland and scrub habitat

monitored annually against the baseline within this plan.	through transect / quadrat surveys are undertaken and recorded annually.
Information on populations of reptiles and mammals is established through baseline surveys and then monitored annually against the baseline *where resources allow.*	Baseline surveys on reptile and mammal populations are undertaken and recorded in years 1 to 5 with potentially less extensive monitoring surveys undertaken and recorded annually thereafter *where resources allow.*

11.2 Site wide Objectives

Leckhampton Hill and Charlton Kings Common

Vision	Measurable Target
SSSI citation and monitoring priorities are adhered to so that the SSSI features are within Favourable Condition (as defined by Natural England) within the 10 years of this management plan and thereafter maintained.	Adherence to citation and monitoring priorities in liaison with Natural England is confirmed through quarterly and annual reviews. SSSI features are defined as being in Favourable Condition at the 10-year annual review.
Geological conservation actions defined by Natural England are implemented.	Geological conservation actions are confirmed as being followed through liaison with Natural England on annual review.
Recreational access objectives to be defined by steering group	Measurable targets for recreational access to be defined by steering group.

Ravensgate Common

Vision	Measurable Target
Local Wildlife Site citation, monitoring priorities, and guidance are adhered to, so that the Local Wildlife Site Lowland Calcareous Grassland feature is in Favourable Condition (as defined by GWT) within the 10 years of this management plan and thereafter maintained	Adherence to citation and monitoring priorities in liaison with GWT is confirmed through annual reviews. Local Wildlife Site Lowland Calcareous Grassland feature is defined as being in Favourable Condition at the 10-year annual review.
At least 2 x interpretation panels at key site entrances commissioned and installed, and thereafter maintained, to	2 x interpretation panels designed and commissioned in year 1 and installed by

encourage understanding and sympathetic use of the site and its special features by visitors. Prepared with site stakeholders including grazier.	the end of year 2. Annual maintenance checks in place thereafter.
Recreational access objective to be defined by steering group	Measurable targets for recreational access to be defined by steering group.

11.3 Feature Specific Objectives

Species-rich Calcareous Grassland

[g2a lowland calcareous grassland, g2a5 dry grasslands, and H6210 scrub on chalk or limestone]

Vision	Measurable Target
Plateau grassland maintained in Favourable Condition through grazing and 'cut and collect' mowing	Grassland in the following habitat units confirmed to be maintained in Favourable Condition with <10% scrub / tree cover through annual review, and more detailed survey in year 10 of the plan. Leckhampton Hill and Charlton Kings Common: Habitat units F101, F96, F55, F39, F38, F17, F104, F28, F7, F37 Ravensgate Common: Habitat units F5, F23
Lowland calcareous grassland SSSI that has been assessed by Natural England as being in 'Unfavourable–Declining' condition in 2012; or LWS grassland assessed by GWT as requiring restoration; or otherwise on gently sloping ground and in less favourable or recovering condition, restored. This requires management of scrub species encroachment (rose, other scrub) or rank grassland species (hogweed etc.).	Grassland in the following habitat units is managed with increased levels of cut and collect / grazing via annual review of condition and adapting work plans and confirmed as being in Favourable Condition with <10% scrub / tree cover in year 10 of the plan. Leckhampton Hill & Charlton Kings Common: Habitat units F24, F16, F18, F14, F12, F13, F68 Ravensgate Common: Habitat units F6, F12
Connectivity of habitat and populations of species, within and where possible outside of the sites, is protected and enhanced, including through enhancement of Daisybank field, Hopkins, and arable reversion land.	Daisy Bank Field, Hopkins, and arable reversion land are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes as confirmed on annual review.

	Increased grassland species biodiversity in these areas is recorded on monitoring surveys in years 3, 6 and 10 of the Plan. Engagement with Nature Recovery Network planning and projects supports enhancement of adjacent and nearby calcareous grassland habitats, confirmed on annual review.
Additional measures are in place to reduce dog fouling close to car parks and other key 'honeypot' areas including the Devil's Chimney area (LHCKC*) where resources allow.*	Additional bins and signage are put in place by year 10 *where resources allow.*
Additional measures are in place to reduce footfall in sensitive habitat areas close to car parks and other key honeypot' areas, including the Devil's Chimney area and pinch point access areas (LHCKC) *where resources allow*.	Additional signage and access improvements are put in place by year 10 *where resources allow.*

- **Duke of Burgundy Butterfly**

Vision	Measurable Target
Populations of primroses and cowslips, food plant for Duke of Burgundy butterfly, are retained and increased in sheltered areas of grassland on both sites	Mapped primroses and cowslips increase by at least 10% coverage on each site in years 5 and 10 of this plan as measured through Butterfly Conservation and local volunteer surveys with records added to GIS database and held centrally
Populations of Duke of Burgundy butterfly are retained and increased on both sites	Population increases of Duke of Burgundy butterfly of at least 10% are demonstrated in each of years 5 and 10 of this plan, through Butterfly Conservation and local volunteer surveys with records added to GIS database and held centrally.

- **Key Invertebrates of Species-rich Calcareous Grassland**

Vision	Measurable Target
Grassland and scrub mosaic habitat supports thriving populations of key invertebrate species; Chalkhill Blue,	Population increases of key invertebrate species of at least 10% are demonstrated in each of years 5 and 10

Small Blue, Glow-worm; and moth species *Nemophora minimella, Coptotriche angusticolella, Scythris grandipennis,* and *Aethes hartmanniana.*	of this plan, through surveys, with records added to GIS database and held centrally.

- **Key Flora of Species-rich Calcareous Grassland**

Vision	Measurable Target
Grassland habitat supports thriving populations of key plants; fly orchid, musk orchid, meadow clary, purple milk-vetch to at least the extent of geographical area present at the baseline (year 0 of this plan) and food plant populations are increased *where resources allow*	Key plants fly orchid, musk orchid, meadow clary, purple milk-vetch, are mapped in GIS by the end of year 2 of this plan. A recorded increase by at least 10% coverage on each site in years 5 and 10 of this plan as measured through volunteer surveys, with records added to GIS database and held centrally ***where resources allow***

Calcareous Grassland and Scrub Mosaic

[g2a5 dry grasslands, and lowland (H6210) scrub on chalk or limestone]

Vision	Measurable Target
Scrub encroachment of grassland on steeply sloping ground is controlled and reduced whilst retaining an overall mosaic with at least 40% scrub in these areas (but 15% scrub in SSSI) within any one year. A mixture of scrub ages is present in proximity, and with edge 'ecotones.'	Grassland in the following habitat units confirmed to be maintained in Favourable Condition with 40%–50% scrub/tree cover (but a maximum of 15% scrub in SSSI designated area) within any one year; a mixture of scrub ages is present in close proximity and with edge 'ecotones', monitored through annual review and more detailed survey in years 5 and 10 of the plan. Leckhampton Hill & Charlton Kings Common: Habitat units F98, F97, F56, F76, F4, F65, F19, F64, F51 Ravensgate Common:

	Habitat units F1, F8, F19, F20, F21, F22, F23, F25
'Butterfly highway' sheltered connected grassland corridor is created and/or maintained at each site	'Butterfly highway' sheltered connected grassland corridor is confirmed present at years 5 and 10 of the plan

- **Roman Snail**

Vision	Measurable Target
Suitable Roman snail habitat is retained on site and opportunities to provide habitat connectivity in the wider landscape are followed where possible – open sunny grassland adjacent to rough grassland and/or scrub and loose calcareous soils.	Suitable Roman snail habitat - open sunny grassland adjacent to rough grassland and/or scrub and loose calcareous soils – is confirmed to remain present to at least baseline (year 0) levels, on review at years 5 and 10 of the plan. Engagement with Nature Recovery Network planning and projects supports enhancement of adjacent and nearby suitable habitats and considers licensed translocation of animals into site with habitat enhancement to increase carrying capacity, where appropriate, confirmed on annual review.

- **Key Invertebrates of Grassland and Scrub Mosaic**

Vision	Measurable Target
Grassland and scrub mosaic habitat supports thriving populations of key invertebrate species; chalkhill blue, small blue, and glow-worm; and moth species *Nemophora minimella, Coptotriche angusticolella Scythris grandipennis,* and *Aethes hartmanniana.*	Population increases of key invertebrate species of at least 10% are demonstrated in each of years 5 and 10 of this plan, through surveys with records added to GIS database and held centrally.

- **Reptile Assemblage of Grassland and Scrub Mosaic**

Vision	Measurable Target
Records of adder and other reptiles are collected centrally and referred to in planning works, to ensure that reptiles and their habitat are adequately protected.	Records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods, and seasonal timing of works as confirmed on annual review.

Adder project areas are retained and enhanced in co-ordination with project partners	Project areas are recorded and held within GIS and/or other database(s) and are referred to in planning locations, methods, and seasonal timing of works as confirmed on annual review. Additional project areas and opportunities to enhance connectivity between habitats are implemented and consider translocation of animals into site with habitat enhancement to increase carrying capacity, where appropriate, and **where *resources allow***.

Semi-improved Grassland

[g3 neutral grassland, g3a lowland meadows, g3c5 Arrhenatherum neutral grassland, g3c6 Lolium-Cynosurus neutral grassland, g4 modified grassland]

Vision	Measurable Target
Daisybank field, Hopkins, and arable reversion land areas, as well as the parcel (F10) at Ravensgate, have significantly increased biodiversity	Daisy Bank Field, Hopkins, and arable reversion land as well as the parcel (F10) at Ravensgate are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes as confirmed on annual review. Increased grassland species biodiversity in these areas is recorded on monitoring surveys in years 3, 6, and 10 of the plans

Scrub

[h3d bramble scrub, h3e gorse scrub, h3f hawthorn scrub, h3h mixed scrub

Vision	Measurable Target
Scrub habitat is retained on site with connectivity through site and offsite, at site edges, with rotational management to ensure a mixture of scrub ages are present in close proximity and with edge 'ecotones' whilst working a maximum of 15% scrub in SSSI designated area within any one year	Scrub habitat is confirmed as present with a mixed age of scrub habitat in close proximity and with edge 'ecotones' present, through survey in years 5 and 10 of the plan. Scrub within SSSI is confirmed as having a maximum of 15% scrub in the SSSI designated area worked within any one year, through annual review.

	Leckhampton Hill & Charlton Kings Common: Habitat units F19, F27, F33, F34, F35, F36, F37, F45, F47, F51, F52, F54, F60, F61, F66, F69, F84, F86, F87, F91, F93, F91, F95, F100, F110 Ravensgate Common: Habitat units F1, F5, F11, F14, F15, F16, F17, F18, F26, F28, F24b, F24c, F30, F31, F34

- **Protected Species Using Scrub Habitat [including nesting birds, badger, dormouse etc.]**

Vision	Measurable Target
Scrub habitat supports thriving populations of protected and priority species with good habitat connectivity present within each site and through the wider landscape including dormice; and key bird species; meadow pipit and grasshopper warbler	Areas supporting confirmed (or potential) protected species populations are recorded in GIS and adequately protected through planning sensitive timing and extent of works, including retaining understory habitat in grazed areas as confirmed on annual review.

<u>Trees</u> [including veteran, over mature, and veteranised trees]

Vision	Measurable Target
Veteran and veteranised trees and their habitat features are retained as ecosystems and as protected species habitat. An average of 2 new veteranised trees each year created and thereafter maintained *where resources allow*	Veteran and veteranised trees are recorded within GIS system by year 2 of the plan and confirmed as being maintained thereafter through annual reviews. An average of 2 newly created veteranised trees are created and recorded with GIS system as confirmed by annual review ***where resources allow***

- **Protected Species Using Tree Features (Including nesting birds, bats)**

Vision	Measurable Target

Crevice and cavity features in trees are retained with access remaining open for protected species	Crevice and cavity features in trees, of confirmed (or potential) value to protected species, are recorded within GIS system by year 2 of the plan and confirmed as being maintained thereafter through annual reviews.

Rock Exposures

Vision	Measurable Target
Natural England geological priorities for SSSI objectives followed	Compliance with Natural England geological priorities for SSSI objectives confirmed on annual review

- **Protected Species Using Rock Exposure Features [Including nesting birds, bats]**

Vision	Measurable Target
Crevice and cavity features in rock exposure are retained with access remaining open for protected species	Crevice and cavity features of confirmed (or potential) value to protected species are recorded within GIS system by year 2 of the plan and confirmed as being maintained thereafter through annual reviews.

Drystone Walls

Vision	Measurable Target
Maintain extent and connectivity of drystone walls as habitat and take opportunities to restore further areas of wall ***where resources allow***	Extent and connectivity of drystone walls are confirmed to be retained at least as at baseline (year 0) on review in years 5 and 10 of this plan. Any activity to further enhance dry stone walls recorded in GIS on annua review ***where resources allow***

Hedgerows

Vision	Measurable Target

Maintain extent and connectivity of hedgerow boundaries as habitat, whilst always retaining fruiting and flowering resource on at least one side of hedgerows, and take opportunities to maintain and restore further areas of hedgerow ***where resources allow***	Extent and connectivity of hedgerows are confirmed to be retained at least as at baseline (year 0) on review in years 5 and 10 of this plan. Management via cutting only one side of each hedgerow in any one year confirmed on annual review. Any activity to further restore and enhance hedgerows is undertaken and recorded in GIS on annual review ***where resources allow***

Woodland

***[w1c lowland beech and yew woodland, w1f lowland mixed deciduous woodland, w1f7 other lowland mixed deciduous woodland, w1g other broadleaved woodland, w1h5 other woodland, mixed, mainly broadleaved, w2c other coniferous woodland*]**

Vision	Measurable Target
Native woodland is retained to the existing baseline geographical cover – unless within an area where this has encroached on grassland – and opportunities to restore native woodland through thinning and removal of non-native species are followed ***where resources allow***.	Native woodland cover is recorded in GIS system by end of year 1 of this plan and confirmed to be at baseline (year 0) geographical cover levels through review at years 5 and 10 – unless within areas where woodland has encroached on grassland. Actions to restore woodland by thinning and removal of non-native species are undertaken and recorded within GIS system and confirmed on annual review ***where resources allow***. Leckhampton Hill & Charlton Kings Common: Habitat units F1, F2, F3, F5, F6, F8, F9, F10, F11, F15, F20, F21, F22, F29, F31, F32, F40, F41, F42, F44, F46, F49, F50, F53, F47, F58, F59, F62, F68, 70, F71, F74, F75, F F72, F83, F89, F90, F92, F94, F96, F101, F102, F103, F106, F107 Ravensgate Common Habitat units; F2, F3, F7, F9

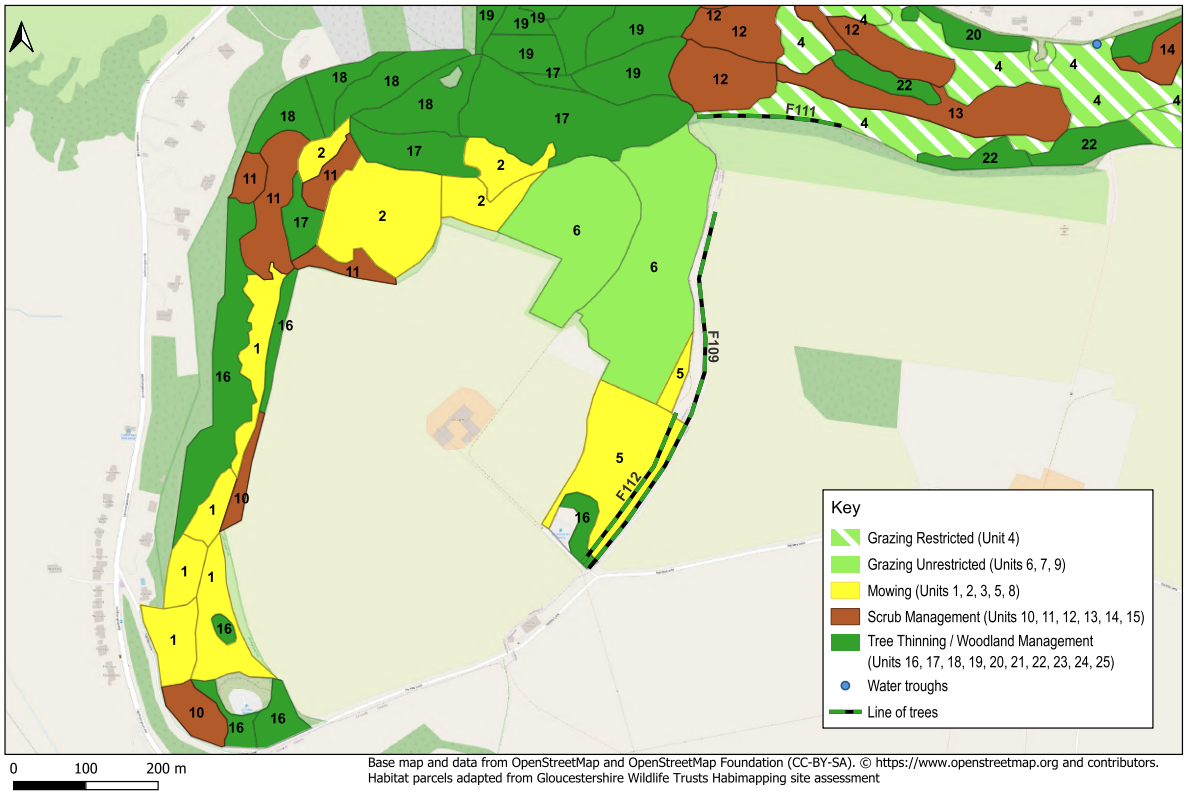
12 Management Compartments

The habitat units have been placed into broad habitat categories, following analysis and grouping of the individual habitat units within Map 1: Habitats for each of the two sites (LHCKC and Ravensgate Common), and given a management code that summarises the main management type priority for that area.

These have then been grouped geographically into broad **Management Compartments** as shown on **Map 2: Proposed Management.** A Table of the **Compartments** and their associated **Habitats and Locations** can be found in **Appendix 4.**

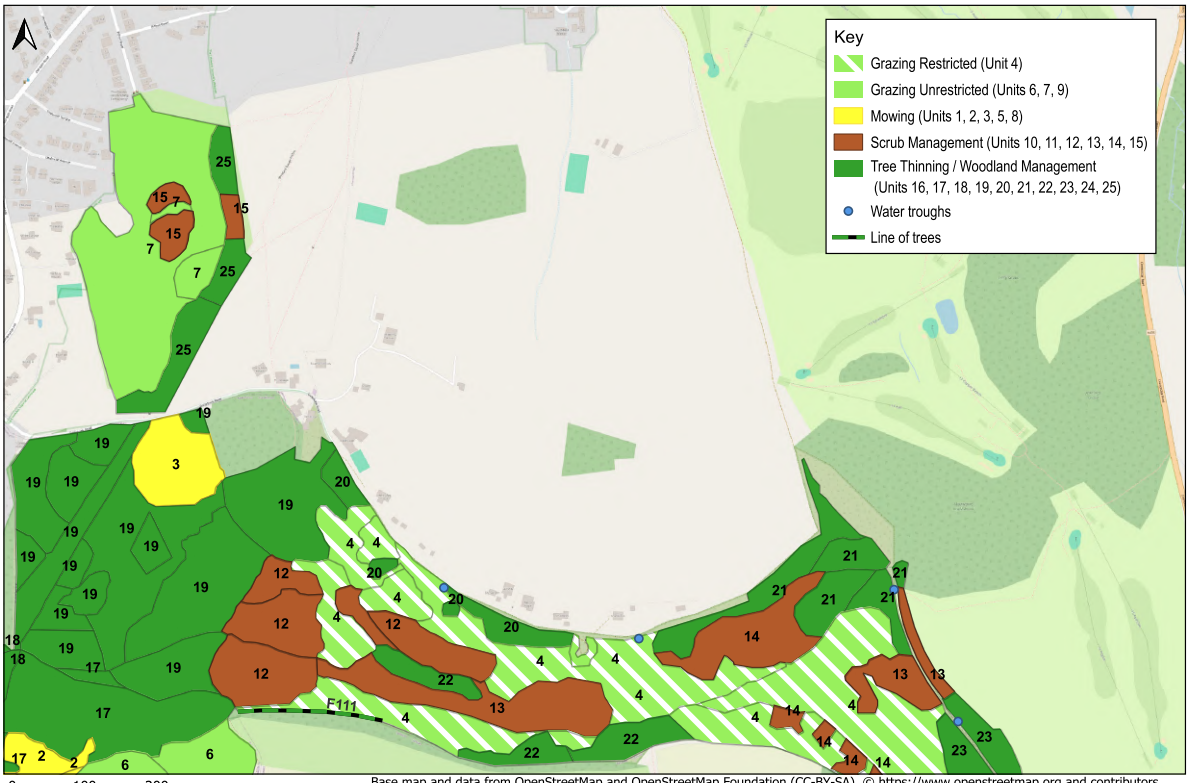
This reflects the existing habitat, as well as the target habitat in that area, and the management constraints and opportunities identified through the review of targets and resources identified earlier in the plan. Management Compartments, together with the specific habitat unit areas listed under each feature, are then used to help identify where and when specific management actions will take place.

Leckhampton Hill & Charlton King's Common Map 2 (Part 1): Proposed Management



Base map and data from OpenStreetMap and OpenStreetMap Foundation (CC-BY-SA). © https://www.openstreetmap.org and contributors.
Habitat parcels adapted from Gloucestershire Wildlife Trusts Habimapping site assessment

Leckhampton Hill & Charlton King's Common Map 2 (Part 2): Proposed Management



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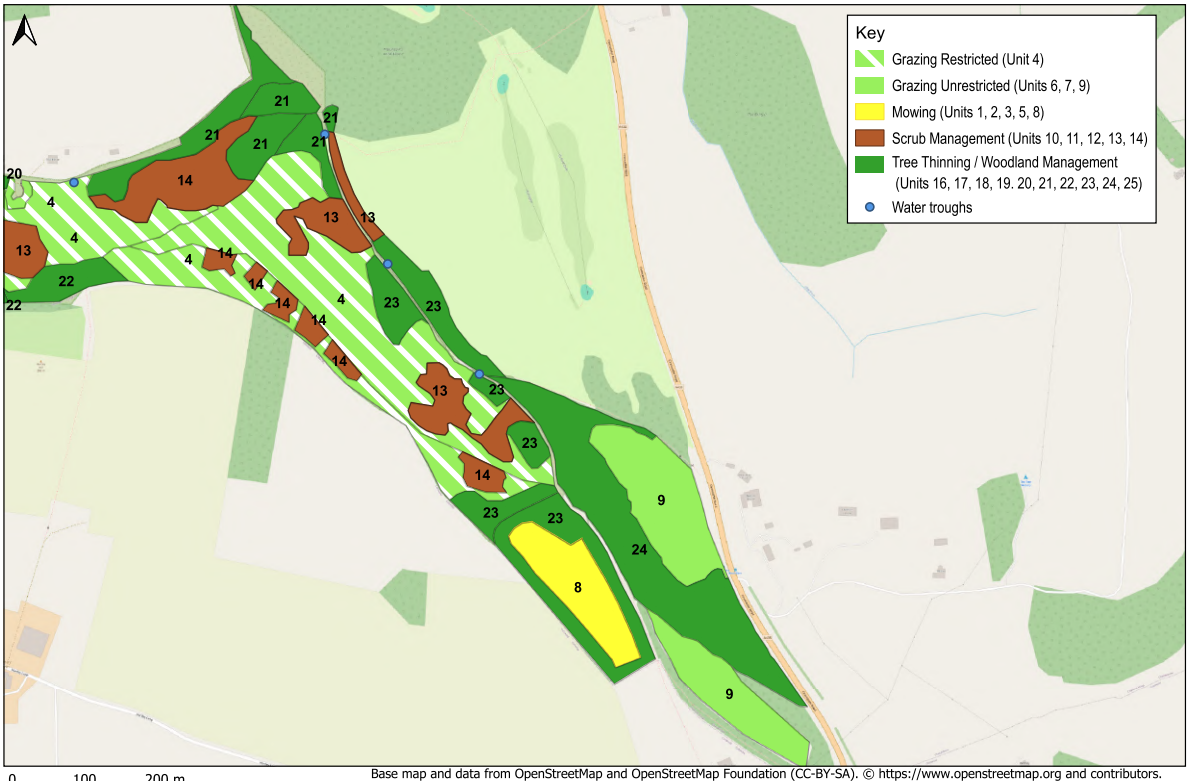
Habitat parcels adapted from Gloucestershire Wildlife Trusts Habimapping site assessment

Leckhampton Hill & Charlton King's Common Map 2 (Part 3): Proposed Management



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Habitat parcels adapted from Gloucestershire Wildlife Trusts Habimapping site assessment

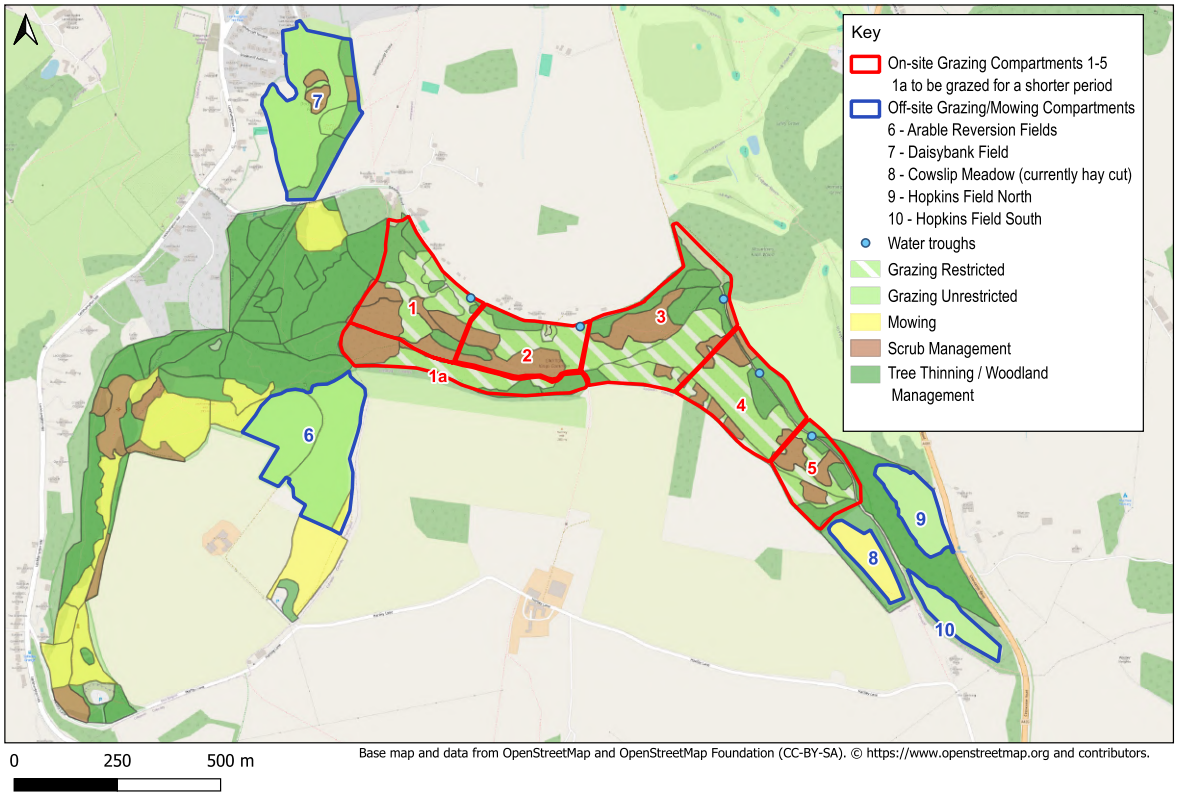
For Charlton Kings Common, Management Compartments have been determined for current conditions, with key factors being:

- clearly distinguishable grassland communities present in the proposed compartment. This recognised that some proposed compartments include more than one grassland community. Recognising that the presence of different communities within same compartment may mean that, over time, methods need to be explored to attempt to focus grazing on smaller sub-compartments.
- Possible targets for the future state of these communities after grazing management, e.g. reduced dominance of coarse grasses, or an extended spatial area of swards rich in dicots. Compartments will be grazed at different times of year. Implicit in this is that the grazing regime may, indeed should, vary between compartments, e.g. in frequency, duration, number of animals.
- Physical features that might be on the ground; indicators of boundaries (valuable for future setting up of electronic boundaries and for volunteer work parties carrying out tasks on features within a compartment).
- Topographical features that could restrict access by cattle.
- Avoidance of features of electronic boundaries that could confuse cattle, e.g. boundaries of adjacent compartments meeting to form very narrow or sharply triangular shape.
- Position of watering points. This will ideally improve with time as resources are available with proposed locations along the south boundary of the site as a priority to enable more flexible use of compartments.

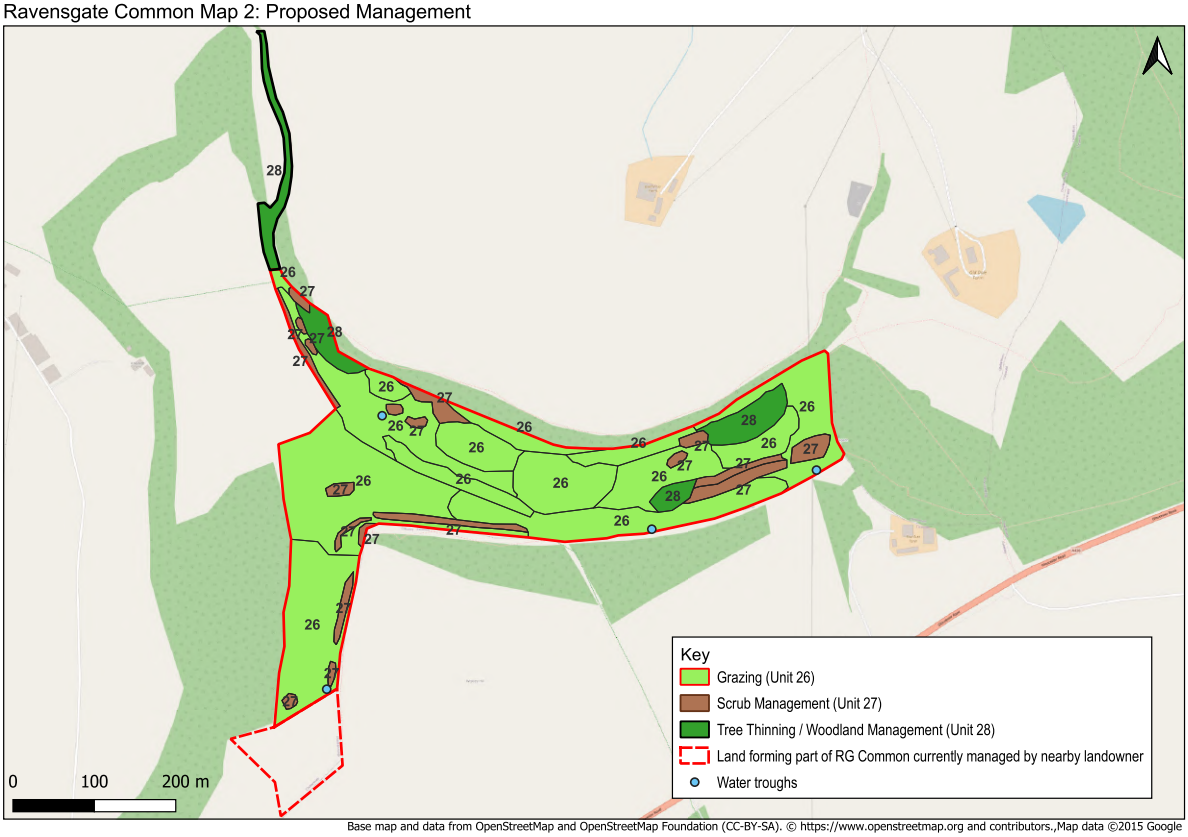
The Management Compartments are overlaid with **Grazing Compartments** as illustrated in **Map 3** for Leckhampton Hill and Charlton Kings Common **and Map 2** Ravensgate (which has one grazing compartment covering most of the site).

For Ravensgate Common, the area of the site under Parish Council management is identified as a single grazing compartment, to be divided up in response to need and resources with strip grazing (strips running north to south across the sloping site) and grazing the top plateau areas likely to be practical as the grazier has the option to move water troughs around the site to facilitate this.

Leckhampton Hill & Charlton King's Common Map 3: Grazing Compartments



Ravensgate Common Map 2: Proposed Management



13 Management Prescriptions

These are listed in the same order as the priority of Features in the main management plan text to which they relate.

13.1 All Areas

A1 Sustainable Farming Incentive agreement commitments are confirmed as being met through liaison with Natural England on annual review.

A2 Strategic plan targets including the Cotswolds Nature Recovery Plan are confirmed as being met through liaison with the relevant partnerships on annual review.

A3 Legal duties to protected species are confirmed as being met through annual review of procedures against legislation.

This will include:

- timing scrub and tree clearance and thinning works to avoid the bird nesting season.
- Carrying out vegetation management in reptile, dormouse, and harvest mouse habitat areas in two phases, with cut only to 15cm in summer (April to October), and avoiding ground disturbance or removal of habitat piles in winter (November to March).
- Avoiding works close to badger setts unless under licence or ecological, non-licenced, method statement.
- Avoiding the spread of non-native species.
- Where the above is unavoidable, ecologist advice and methods will be followed.

A4 Climate Change management actions and best practice are confirmed as being implemented through liaising with Cheltenham Borough Council's climate strategy and officers on annual review.

A5 Connectivity of habitats and species relating to key site Features is maintained and is enhanced within the site by year 5 and within the wider landscape by year 10 to be confirmed by annual review of GIS mapped habitats over each year.

A6 Engagement with wider initiatives to conserve and enhance populations of protected and notable species confirmed on annual review.

A7 Engagement with wider initiatives to control and manage the effect of invasive non-native species, pests, and diseases confirmed on annual review.

A8 Non-native invasive species, pests, and diseases *a*re mapped within GIS records and action to control these within the site is undertaken *where resources allow*. Records to be based on OS grid reference or 'What3Words' references and recorded as part of other habitat surveys, and incidentally by all able to do so.

Record keeping, sharing, and mapping confirmed through annual meetings with Cheltenham Borough Council staff.

A9 Suitable site wide **surveys and/or samples of grassland and scrub habitat** through transect/quadrat surveys are undertaken and recorded annually.

Samples of each habitat are monitored through quadrat survey between June and August each year following GWT HabiMapping protocol (or suitable alternative agreed with the management group), and records held centrally in GIS.

A10 Baseline **surveys of reptile and mammal populations** are undertaken and recorded in years 1 to 5, with potentially less extensive monitoring surveys undertaken and recorded annually thereafter *where resources allow.*

- Year 1 & 5 - Setting out of reptile survey sheets in suitable sample areas, at a ratio of 10 sheets per ha, 2m to 5m apart along walked transects. Allow sheets to 'bed in' for 10 days before carrying out at least 7 checks in spring, early summer, and autumn. Follow current guidelines including those produced by 'Froglife.'

  Note that elements of this are similar to the more specific adder management prescriptions below, although relate to more broad areas and targets.
- Year 1 & 5 - Non-specialist mammal surveys that require some training, supervision, and equipment but not necessarily licencing or high costs, to include:
  - Setting out of small mammal 'Longworth' live traps overnight and checking the following day, in spring and autumn – all habitats with cover.

- Searching for harvest mouse nests in spring and autumn – grassland.
- Searching for nuts opened by dormice and other small mammals in autumn– beneath hazel trees.
- Bat transect surveys following Bat Conservation Trust guidance and with engagement with Gloucestershire Bat Group to explore cave roosts, and potential community bat walk events.

13.2 Leckhampton Hill and Charlton Kings Common

B1 Adherence to citation and monitoring priorities in liaison with Natural England is confirmed through quarterly and annual reviews.

Works methods and any proposed changes to be checked quarterly against written requirements of legislation and funding agreements and reported annually to Natural England as required.

B2 SSSI features are defined as being in Favourable Condition at the 10-year annual review. Review and report as needed in winter in year 10.

13.3 Ravensgate Common

C1 Adherence to Local Wildlife Site (LWS) citation and monitoring priorities in liaison with GWT is confirmed through ongoing quarterly and annual reviews of all works.

C2 Local Wildlife Site Lowland Calcareous Grassland feature is confirmed as being in Favourable Condition at the 10-year annual review. Review and report as needed in winter in year 10.

C3 Interpretation panels (x2) designed and commissioned in year 1 and installed by the end of year 2.

- Design of panels - to involve stakeholders including grazier and provide engaging information about the site encouraging visitors to value and look after the site and its special wildlife.
- Installation of panels by main site entrances
- Annual maintenance checks in place thereafter each winter with repairs put in place as needed.

13.4 Species-rich Calcareous Grassland

[g2a lowland calcareous grassland, g2a5 dry grasslands, and h621 scrub on chalk or limestone]

D1 Grassland in the following habitat units is confirmed to be maintained in Favourable Condition through walkover survey, with <10% scrub / tree cover through annual review and more detailed quadrat survey in year 10 of the plan.

Leckhampton Hill and Charlton Kings Common:

Habitat units F4, F7, F12, F13, F14, F17, F19, F23, F26, F28, F37, F38, F39, F51, F55, F56, F64, F65, F88, F96, F97, F98, F101, F104

Ravensgate Common:

Habitat units F1, F5, F8, F23, F35

- Surveys, monitoring and reporting
  - Samples of each habitat are monitored through quadrat survey between June and August each year following GWT HabiMapping protocol (or suitable alternative agreed with the management group), and records held centrally in GIS.
  - Increased grassland species biodiversity in these areas is recorded on monitoring surveys in years 3, 6, and 10 of the plans.
- Management Activities
  - Smaller cattle breeds will in effect provide slightly less grazing pressure per animal than larger breeds: Dexters are often considered 0.5LU and the Belted Galloways used currently on the CKC site are slightly larger.
  - Grazing compartments have been measured using GIS and aerial mapping to indicate target livestock units for each grazable area within each compartment:
    - Compartment 1 - 6ha
    - Compartment 1a – 3ha
    - Compartment 2 - 4ha
    - Compartment 3 - 8ha
    - Compartment 4 - 4ha

- Compartment 5 - 2.5ha
- Arable reversion - 6ha
- Daisybank Field - 5.5ha
- Hopkins North - 2ha
- Hopkins South - 2ha
- Cowslip Meadow - 1.5ha

o This will indicate how many cattle and for how long it is appropriate to graze each area although with the adaptive management approach, this will vary depending on local geographic availability and quality of grazing as well as weather conditions, so will need to be adapted in relation to grazing levels observed on the ground. Where the same number of cattle need to be included in each grazing area, the time spent in a smaller compartment will be reduced to prevent over grazing.

**Note that the SFI agreement for LHCKC stipulates a maximum of 1LU/ha/yr.* Male cattle and females over 24 months including suckler cows = 1.0LU. Male cattle and heifers between 6 months and 24months = 0.6LU

- Grazing

Leckhampton Hill and Charlton Kings Common

o *Leckhampton Hill* is currently not suitable for grazing, so other methods to maintain the vegetation in the required condition will be more appropriate.

o *Charlton Kings Common* has been divided into 6 grazing compartments, with compartments between 2.5ha and 8ha in size (taking into account approximate grazable areas). Compartment 1a will be grazed for less time than 1 due to grassland types and topography.

o Key conservation areas will be winter grazed between **September to March inclusive**. The compartments will usually be grazed in order, moving from 1a at the start of the season through to 1, then 2, 3, 4, and 5, or in reverse. Compartments cannot be grazed in a random order, even utilising Nofence collars. Supplementary feeding on the SSSI is allowed in extreme circumstances only.

o *Daisybank Field, Hopkins, Cowslip Meadow, and Arable Reversion field* are managed without agricultural improvements and through implementing

enhanced grazing and cutting regimes. There is no winter grazing of these areas. Historically, a bienniel hay cut has been taken from each field, but as the herd size has been gradually increased, grazing has become more appropriate, although hay cutting could also be reintroduced.

- Detailed prescriptions:
    - Daisy Bank Field – a short period of intense grazing in early summer as in 2024/25 and repeated annually.
    - Hopkins

      Upper field (north) - to be grazed sporadically with lower numbers in early spring and throughout summer. Can be used for winter feeding only if required due to weather and other site constraints/issues. Topped if not grazed

      Lower field (South) - to be grazed more intensively in late summer to early autumn, after seed harvesting.
    - Cowslip Meadow – to be grazed from mid-late August, after seed harvesting.
    - Arable Reversion field – to be grazed lightly by cows and newborn calves in early summer, then fully grazed in later summer.

Ravensgate Common

- Ravensgate Common will be winter grazed as a single unit between September and March inclusive, within which targeted compartments can be set using Nofence GPS cattle collars. Adjacent land owned by the grazier to be used outside of this season.

Both

- Cattle collars give the potential to reinstate strip grazing areas (each running north to south) to allow animals to be moved across the slope. At some point, in the restoration of grassland condition, light grazing over summer might be considered. The top plateau can potentially be grazed more intensively to reduce more dominant tall herbs and rank grassland.
- To facilitate grazing, additional water troughs to be installed by Year 5 *where resources allow:*

Leckhampton Hill and Charlton Kings Common

- Along the south site boundary of CKC, approximately parallel with existing north troughs.
- Within plateau areas of Leckhampton Hill

Ravensgate Common

- Along north and south boundaries 5 troughs at each end of the site.

o Grassland in the following habitat units is managed **with increased levels of cut and collect/grazing**, with an annual review of condition and adapting work plans; and confirmed as being in Favourable Condition with <10% scrub / tree cover in year 10 of the plan.

Leckhampton Hill & Charlton Kings Common:

Habitat units F12, F13, F14, F16, F18, F24, F68, F76, F81

Ravensgate Common:

Habitat units F6, F12

- Grass Cutting

o Areas which are inaccessible, too steep, or otherwise unsuitable for grazing, or which will need additional targeted management to ensure species diversity is retained and enhanced, and dominant species controlled, will be targeted for cutting by machine (tractor, cut and collect mower, or in some cases a 'Robomower', or by hand tools for smaller less accessible areas) with the cut either collected for hay or composted off site.

o There will also be a collection of seeds associated with cutting in some areas, for use of the seeds in increasing species diversity elsewhere, which may be on or off site.

o Cutting will take place in late summer between 16th July and 31st March with late summer for collection and use of the hay or seed crop.

o Key areas for cutting include:

- The majority of open grassland and lightly scrubbed grassland and herb areas on Leckhampton Hill, particularly.

Leckhampton Hill & Charlton Kings Common

- Old area 16 – F76
- Brownstones Quarry F17
- Butterfly Highway
- Arable Reversion Fields
- Hopkins North and South
- Cowslip Meadow

Ravensgate Common

- The south-western and north plateau areas – F6, F12
- Steeper sections in the central belt of the slope – F1, F8, F35

- Targeted Vegetation Control
  - In some areas dominant tall herbs require targeted management through hand pulling wherever possible of species, in particular spear and creeping thistle, common ragwort, common nettle, curled and broadleaved dock and hemp agrimony.

    Particular areas will be:

    Leckhampton Hill & Charlton Kings Common

    - Old Area 28 – F7, F33, F34, F35, F36, F37 F45
    - Hopkins (South)
    - Daisybank Field
    - Cowslip Meadow

    Ravensgate Common

    - The south-western and north plateau areas – F6, F12

D2 Engagement with Nature Recovery Network planning and projects supports enhancement of adjacent and nearby calcareous grassland habitat confirmed on annual review.

D3 Additional bins and signage – to target dog fouling problems close to car parks and 'honeypot' areas such as the Devil's Chimney – are put in place by year 10 *where resources allow.*

D4 Additional signage and access improvements – to target reduced footfall in sensitive habitat areas – close to car parks and 'honeypot' areas such as the Devil's Chimney – are put in place by year 10 *where resources allow*.

13.5 Duke of Burgundy butterfly

D1 Mapped primroses and cowslips increase by at least 10% coverage on each site in years 5 and 10 of this plan as measured through Butterfly Conservation and local volunteer surveys, with records added to GIS database and held centrally.

Surveys to Butterfly Conservation protocol and reported to central scheme annually, reviewed against this plan target in key years.

E1 Mapped primroses and cowslips increase by at least 10% coverage on each site in years 5 and 10 of this plan as measured through Butterfly Conservation and local volunteer surveys with records added to GIS database and held centrally.

Surveys to Butterfly Conservation protocol and reported to central scheme annually, reviewed against this plan target in key years.

E2 Population increases of Duke of Burgundy butterfly of at least 10% are demonstrated in each of years 5 and 10 of this plan, through Butterfly Conservation and local volunteer surveys with records added to GIS database and held centrally.

Surveys to Butterfly Conservation protocol and reported to central scheme annually, reviewed against this plan target in key years.

13.6 Key Invertebrates of Species-rich Calcareous Grassland

F1 Population increases of key invertebrate species of at least 10% are demonstrated in each of years 5 and 10 of this plan, through surveys with records added to GIS database and held centrally (chalkhill blue, small blue, glow-worm;

and moth species *Nemophora minimella, Coptotriche angusticolella*, *Scythris grandipennis,* and *Aethes hartmanniana).*

Surveys to take place in summer months by volunteers and/or specialists, walking suitable habitat transects over 1 to 3 visits as resources allow, or by other protocol as advised by specialists.

13.7 Key Flora of Species-rich Calcareous Grassland

G1 Key plants fly orchid, musk orchid, meadow clary, and purple milk-vetch to be mapped in GIS by the of year 2 of this plan.

- Records **t**o be based on OS grid reference or 'What3Words' references and recorded as part of other habitat surveys, and incidentally by all able to do so.
- A recorded increase of key flora by at least 10% coverage on each site in years 5 and 10 of this plan as measured through volunteer surveys with records added to GIS database and held centrally *where resources allow.*

13.8 Calcareous Grassland and Scrub Mosaic

[g2a5 dry grasslands, and h6210 scrub on chalk or limestone]

H1 Scrub and tree management – Grassland in the following habitat units confirmed to be maintained in Favourable Condition) with 40 – 50% scrub / tree cover (whilst working a maximum of 15% scrub on SSSI designated area within any one year) and a mixture of scrub ages are present in close proximity and with edge 'ecotones' through annual review and more detailed survey in years 5 and 10 of the plan

Leckhampton Hill & Charlton Kings Common:

Habitat units F4, F7, F14, F17, F19, F26, F28, F38, F51, F56, F64, F65, F82, F88, F96, F97, F98, F101

Ravensgate Common:

Habitat units F1, F8, F19, F20, F21, F22, F23, F25

- Surveys and Monitoring
  - Samples of each habitat are monitored through quadrat survey between June and August each year following GWT HabiMapping protocol and

records held centrally in GIS. More detailed survey and review in Years 5 and 10.

- Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management checks and working methods to prevent disturbance or harm to protected species.
- Scrub management activities and tree thinning will aim to retain and enhance habitat mosaics with sheltered open areas, with some elements of localised bare ground in mosaic with more established scrub patches. Patches and gaps will be in a mosaic with blocks and clearings ranging from 2m² approx. to 10m² approx., averaging 5m².
- Depending on numbers of volunteers, terrain, familiarity with the site etc. an average of approximately 100m² scrub may be cleared by volunteer work parties in one day, using hand tools including handheld brush cutters and other light machinery, removing cut material from site or where appropriate, creating small habitat piles or burning material, particularly Gorse, on site.

Leckhampton Hill & Charlton Kings Common:

Habitat units F4, F7, F14, F17, F19, F26, F28, F38, F51, F56, F64, F65, F82, F88, F96, F97, F98, F101

Ravensgate Common:

Habitat units F1, F8, F19, F20, F21, F22, F23, F25

H2 Engagement with Nature Recovery Network planning and projects to support enhancement of adjacent and nearby suitable habitats, confirmed on annual review.

H3 Butterfly 'highway' sheltered connected grassland corridor is maintained and confirmed as present at years 5 and 10 of the plan. Through ongoing grazing and targeted winter cutting of scrub where needed.

Leckhampton Hill & Charlton Kings Common:

Habitat Units F19, F264, F110

13.9 Roman snail

I1 Suitable Roman Snail habitat – open sunny grassland adjacent to rough grassland and/or scrub and loose calcareous soils – is confirmed to remain present to at least baseline (year 0) levels, on review at years 5 and 10 of the plan.

13.10 Key Invertebrates of Grassland and Scrub Mosaic

J1 Population increases of key invertebrate species of at least 10% are demonstrated in each of years 5 and 10 of this plan, through surveys with records added to GIS database and held centrally (chalkhill blue, small blue, glow-worm; and moth species *Nemophora minimella, Coptotriche angusticolella*, *Scythris grandipennis,* and *Aethes hartmanniana).*

Surveys to take place in summer months by volunteers and/or specialists, walking suitable habitat transects over 1 to 3 visits as resources allow, or by other protocol as advised by specialists.

13.11 Reptile Assemblage of Grassland and Scrub Mosaic

Note that elements of this are similar to the broader reptile management prescriptions above, although relate to more project specific areas and targets.

K1 Records of adder and other reptiles are held within GIS and/or other databases and are referred to in planning locations, methods, and seasonal timing of works, as confirmed on annual review.

Records are updated with incidental recordings on top of baseline surveys detailed above.

K2 Adder Project areas (in co-ordination with GWT) are recorded and held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works, as confirmed on annual review.

K3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented *where resources allow.*

13.12 Semi-improved Grassland

[g3 neutral grassland, g3a lowland meadows, g3c5 *Arrhenatherum* neutral grassland, g3c6 *Lolium-Cynosurus* neutral grassland, g4 modified grassland]

L1 Daisybank Field, Hopkins, Cowslip Meadow, and arable reversion land are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes, as confirmed on annual review.

L2 Increased grassland species biodiversity in these areas is recorded on monitoring surveys in years 3, 6, and 10 of the Plan. Measured through annual repeat of quadrat surveys carried out to Habimapping method (or suitable alternative agreed with the management group) between June and August.

13.13 Scrub

[h3d bramble scrub, h3e gorse scrub, h3f hawthorn scrub, h3h mixed scrub]

M1 Scrub habitat is confirmed as present with a mixed age of scrub in close proximity and with edge 'ecotone'' present, through survey in years 5 and 10 of the plan.

Surveyed as an extension to the annual Habimapping update surveys in target monitoring years.

M2 Scrub within SSSI is confirmed as only having a maximum of 15% worked in SSSI designated area within any one year, through annual review.

M3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.

Depending on numbers of volunteers, terrain, familiarity with the site etc. an average of approximately 100m² scrub may be cleared by volunteer work parties in one day, using hand tools including handheld brush cutters and other light machinery, removing cut material from site or where appropriate, creating small habitat piles or burning material, particularly gorse, on site.

Leckhampton Hill & Charlton Kings Common:

Habitat units F27, F33, F34, F35, F36, F37, F45, F47, F48, F52, F60, F61, F63, F66, F69, F84, F88, F89, F91, F93, F95, F100, F110

Ravensgate Common:

Habitat units F11, F13, F14 F15, F16, F17, F18, F24, F26, F27, F28, F29, F30, F31, F32, F33, F34

13.14 Protected Species Using Scrub Habitat (including nesting birds, badger, dormouse etc.)

N1 Areas supporting confirmed (or potential) protected species populations are recorded in GIS and adequately protected through planning sensitive timing and extent of works including retaining understorey habitat in grazed areas and retaining shelter scrub habitat in scarp top are as confirmed on annual review – where records are obtained incidentally or through targeted surveys described within other prescriptions.

13.15 Trees (including veteran, over mature, and veteranised trees)

O1 Veteran and veteranised trees are recorded within GIS system by year 2 of the plan and confirmed as being maintained thereafter through annual reviews.

O2 An average of 2 newly created veteranised trees are created and recorded within GIS system, as confirmed by annual *review* ***where resources allow.***

This will be by selectively creating 'veteran' features such as splits, removed bark and limbs, to enhance features for wildlife. Works to take place over winter.

Leckhampton Hill & Charlton Kings Common:

Habitat units F1, F2, F3, F5, F6, F8, F9, F10, F11, F15, F21, F22, F25

F31, F32, F40, F42, F44, F46, F49, F50, F57, F58, F59, F67, F70, F71, F72, F73, F74, F75, F77, F78, F79, F80, F83, F90, F105, F106.

13.16 Protected Species Using Tree Features [including nesting birds, bats]

P1 Crevice and cavity features in trees, of confirmed (or potential) value to protected species, recorded within GIS system by year 2 of the plan and confirmed as being maintained thereafter through annual reviews.

13.17 Rock Exposure

Q1 Compliance with Natural England geological priorities for SSSI objectives confirmed on annual review. Through engagement with Natural England on updated objectives as these become available – referring to previous management plan in the interim as advised by Natural England.

13.18 Protected Species Using Rock Exposure Features [including nesting birds, bats]

R1 Crevice and cavity features of confirmed (or potential) value to protected species recorded within GIS system by year 2 of the plan and confirmed as being maintained thereafter through annual reviews.

13.19 Drystone Walls

S1 Extent and connectivity of drystone walls are confirmed to be retained at least as at baseline (year 0) on review in years 5 and 10 of this plan. Recorded through annual habitat mapping.

S2 Any activity to further enhance dry stone walls recorded in GIS on annual review *where resources allow.*

13.20 Hedgerows

T1 Extent and connectivity of hedgerows are confirmed to be retained at least as at baseline (year 0) on review in years 5 and 10 of this plan. Recorded through annual habitat mapping.

T2 Management via cutting only one side of each hedgerow with alternate sides cut over 2 years or less, in any one year is confirmed on annual review.

T3 Any activity to further restore and enhance hedgerows undertaken and recorded in GIS, on annual review *where resources allow.*

13.21 Woodland

[w1c lowland beech and yew woodland, w1f lowland mixed deciduous woodland, w1f7 other lowland mixed deciduous woodland, w1g other broadleaved woodland, w1h5 other woodland, mixed, mainly broadleaved, w2c other coniferous woodland]

U1 Native woodland cover is recorded in GIS system by end of year 1 of this plan and confirmed to be at baseline (year 0) geographical cover levels through review at years 5 and 10 – unless within areas where woodland has encroached on grassland.

Leckhampton Hill & Charlton Kings Common

Habitat units F1, F2, F3, F5, F6, F8, F9, F10, F11, F15, F21, F22, F25

F31, F32, F40, F42, F44, F46, F49, F50, F57, F58, F59, F67, F70, F71, F72, F73, F74, F75, F77, F78, F79, F80, F83, F90, F105, F106,

Ravensgate Common

Habitat units F2, F3, F7, F9

- Native woodland mapped in GIS by end of year 1
- Native woodland cover confirmed to be at least equal to baseline (year 1) extent at years 5 and 10.

U2 Actions to restore woodland by thinning and removal of non-native species are undertaken and recorded within GIS system and confirmed on annual review.

- Unmanaged woodland areas to be selectively thinned by 50% within first 5 years of the plan, following:
- Habitat mapping during annual Habimapping update (or suitable alternative agreed with the management group).

U.3 Non-native species to be removed by year 10 of the plan, undertaken and recorded within GIS system and confirmed on annual review.

- Non-native plant species to be selectively cut, pulled or where appropriate spot treated, following:
- Habitat mapping during annual Habimapping update (or suitable alternative agreed with the management group) *where resources allow.*

14 Action Plans

Plans are set out for each site and for each quarter of the initial 5 years of the plan period.
Action plans are to be regularly reviewed and amended as needed through the adaptive management approach.
Actions are letter and number coded to the relevant Management Prescription, and colour coded; with blue actions relating to planning, reporting and monitoring by staff or specialists, and violet actions relating mostly to volunteer work party activities. Orange colour coding includes both types of action.

14.1 Leckhampton Hill & Charlton Kings Common

Year 1

Habitat & Management Activity	**Spring** **March – May** Work Areas	**Summer** **June – August** Work Areas	**Autumn** **September – November** Work Areas	**Winter** **December – February** Work Areas	**Notes**
A.1, A.2, A.3, B.1, All works to comply with SSSI citation and monitoring priorities, SFI agreement commitments, and legal species protection.	Review	Review	Review	Review and report as needed	
A.4, A.5, A.6, A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, are ensured through ongoing review and recording within central systems, including GIS	Review	Review	Review	Review and report as needed	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
A.10.1 All Relevant Habitats Baseline reptile surveys	Sample of all suitable habitats		Sample of all suitable habitats	Report and update GIS records	Where resources allow
A.10.2 All Relevant Habitats Baseline mammal surveys	Sample of all suitable habitats		Sample of all suitable habitats	Report and update GIS records	Where resources allow
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable Condition through annual review		Walkover survey of target areas			

D.1.2.1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect and targeted vegetation control	Cutting / grazing	Cutting / grazing			
D.2, H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats and grassland and scrub mosaics, confirmed on annual review.				Review	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
H.3 Butterfly highway maintained through grazing and cutting where necessary				Cutting as needed	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow.
L.1 Daisybank Field, Hopkins, Cowslip Meadow, and arable reversion land are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes, as confirmed on annual review.	Grazing / cutting	Grazing / cutting	Grazing / cutting / hay crop	Review	
M.2 Scrub within SSSI – only maximum of 15% within designated boundary managed each year				Review	

M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS, and adequately protected through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas				Review	
O.2 2 new veteranised trees (on average) created each year and recorded in GIS				Create and record	Where resources allow
Q.1 Rock exposure – compliance with Natural England geological objectives for SSSI confirmed on annual review				Review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review			Cutting	Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.1.1 Native woodland cover is recorded in GIS system by end of year 1		Survey		Review and record	

U.2.2 Unmanaged woodland included in habitat mapping during annual Habimapping update.		Survey		Review and record	
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 2

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, B.1, All works to comply with SSSI citation and monitoring priorities, SFI agreement commitments, and legal species protection.	Review	Review	Review	Review and report as needed	
A.4, A.5, A.6, A.7 Liaison with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity, and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records, and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable Condition through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing / cut and collect and targeted vegetation control	Cutting / grazing	Cutting / grazing			
D.2, H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats and				Review	

grassland and scrub mosaics, confirmed on annual review.					
G.1.1 Key plants Fly Orchid, Musk Orchid, Meadow Clary to be mapped in GIS by the of year 2 of this plan.	Survey	Survey		Report as needed	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
H.3 Butterfly highway maintained through grazing and cutting where necessary				Cutting as needed	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
L.1 Daisybank Field, Hopkins, Cowslip Meadow, and arable reversion land are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes as confirmed on annual review.	Cutting/ grazing	Cutting / grazing	Cutting / grazing	Review	
M.2 Scrub within SSSI – only maximum of 15% within designated boundary each year				Review	
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management			Scrub & tree works	Scrub & tree works	

issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.					
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS, and adequately protected through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas	Record	Record	Record	Review	
O.1 Trees - Veteran, over mature, and veteranised trees recorded in GIS system by end of year 2	Record	Record	Record	Review	
O.2 Trees - 2 new veteranised trees (on average) created each year and recorded in GIS				Create and record	Where resources allow
P.1 Trees - crevice and cavity features supporting confirmed (or potential) protected species populations recorded in GIS system by end of year 2	Record	Record	Record	Record and review	
Q.1 Rock exposure – compliance with Natural England geological objectives for SSSI confirmed on annual review				Review	
R.1 Rock exposure - crevice and cavity features supporting confirmed (or potential) protected species populations recorded in GIS system by end of year 2	Record	Record	Record	Record and review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that				Cutting, review and record	

alternate sides are cut over 2 years, confirmed through annual review					
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.2.2 Unmanaged woodland included in habitat mapping during annual Habimapping update.		Survey		Review and record	
U.3.1 U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 3

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, B.1, All works to comply with SSSI citation and monitoring priorities, SFI agreement commitments, and legal species protection.	Review	Review	Review	Review and report as needed	
A.4, A.5, A.6, A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable Condition through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of	Cutting / grazing	Cutting / grazing			

grazing/cut and collect, and targeted vegetation control					
D.2, H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
H.3 Butterfly highway maintained through grazing and cutting where necessary				Cutting as needed	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
L.1 Daisybank Field, Hopkins, Cowslip Meadow, and arable reversion land are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes as confirmed on annual review.	Cutting /grazing	Cutting /grazing	Cutting / gazing	Review	
L.2 Daisybank Field, Hopkins, Cowslip Meadow, and arable reversion land - increased grassland species biodiversity is recorded on monitoring surveys (year 3 of plan)		Survey		Review and report	
M.2 Scrub within SSSI – only maximum of 15% within designated boundary each year				Review	
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected			Scrub & tree works	Scrub & tree works	

species checks and working methods to prevent disturbance or harm to protected species.					
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS, and adequately protected through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas				Review	
O.2 2 new veteranised trees (on average) created each year and recorded in GIS				Create and record	Where resources allow
Q.1 Rock exposure – compliance with Natural England geological objectives for SSSI confirmed on annual review				Review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.2.2 Unmanaged woodland included in habitat mapping during annual Habimapping update.		Survey		Review and record	
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 4

Habitat & Management Activity	**Spring** **March – May** Work Areas	**Summer** **June – August** Work Areas	**Autumn** **September – November** Work Areas	**Winter** **December – February** Work Areas	**Notes**
A.1, A.2, A.3, B.1, All works to comply with SSSI citation and monitoring priorities, SFI agreement commitments, and legal species protection.	Review	Review	Review	Review and report as needed	
A.4, A.6, A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	

A.8 Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat survey		Sample of all suitable habitats			
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable Condition, through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect and targeted vegetation control	Cutting / grazing	Cutting / grazing			
D,2 H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
H.3 Butterfly highway maintained through grazing and cutting where necessary				Cutting as needed	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
L.1 Daisybank Field, Hopkins, Cowslip Meadow, and arable reversion land are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes, as confirmed on annual review.	Cutting /grazing	Cutting /grazing	Cutting /grazing	Review	
M.2 Scrub within SSSI – only maximum of 15% within designated boundary each year				Review	

M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS, and adequately protected through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas				Review	
O.2 2 new veteranised trees (on average) created each year and recorded in GIS				Create and record	Where resources allow
Q.1 Rock exposure – compliance with Natural England geological objectives for SSSI confirmed on annual review				Review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.2.2 Unmanaged woodland included in habitat mapping during annual Habimapping update.		Survey		Review and record	
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 5

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, B.1, All works to comply with SSSI citation and monitoring priorities, SFI agreement commitments, and legal species protection.	Review	Review	Review	Review and report as needed	

A.4, A.5, A.6, A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	
A.5 Connectivity of habitats and species relating to key Features maintained and enhanced within the site by year 5, by review of mapped habitats				Review and report	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	
A.9 Grassland and scrub quadrat survey		Sample of all suitable habitats			
A10.1 All Relevant Habitats Update reptile surveys	Repeat year 1 Sample of all suitable habitats		Repeat year 1 Sample of all suitable habitats	Report and update GIS records	Where resources allow
A10.2 All Relevant Habitats Update mammal surveys	Repeat year 1 Sample of all suitable habitats		Repeat year 1 Sample of all suitable habitats	Report and update GIS records	Where resources allow
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable Condition, through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect, and targeted vegetation control	Grazing / cutting	Grazing / cutting			
D.2, H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
E.1 Mapped primroses and cowslips increase by at least 10% coverage in years 5 as measured through Butterfly Conservation and local volunteer surveys, with records added to GIS database and held centrally.		Surveys in species rich calcareous grassland		Review and inclusion in GIS central database	

E.2 Population increases of Duke of Burgundy butterfly of at least 10% are demonstrated in year 5 of this plan, through Butterfly Conservation and local volunteer surveys, with records added to GIS database and held centrally.		Surveys in species rich calcareous grassland		Review and inclusion in GIS central database	
F.1 Population increases of key invertebrate species of at least 10% within calcareous grassland and mosaic of calcareous grassland and scrub habitat, demonstrated in year 5, through surveys with records added to GIS database and held centrally (Chalkhill Blue, Small Blue, Glow-worm; and moth species *Nemophora minimella, Coptotriche angusticolella*, *Scythris grandipennis,* and *Aethes hartmanniana).*		Surveys in species rich calcareous grassland		Review and inclusion in GIS central database	
G.1.2 A recorded increase off fly orchid, musk orchid, meadow clary, and purple milk-vetch by at least 10% coverage in year 5 (from year 0), through volunteer surveys, with records added to GIS database and held centrally		Surveys	Surveys	Review and inclusion in GIS central database	Where resources allow
H.1.1 Scrub management – Grassland confirmed to be maintained in Favourable Condition with 40 – 50% scrub/tree cover (with a maximum of 15% scrub on SSSI designated area within any one year), and a mixture of scrub ages are present in close proximity and with edge 'ecotones' through annual review and more detailed survey in year 5		Surveys		Review and report	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
H.3 Butterfly highway maintained through grazing and cutting where necessary, and confirmed as present at 5-year review				Cutting as needed Report on 5-year target.	

I.1 Suitable Roman snail habitat – open sunny grassland adjacent to rough grassland/scrub and loose calcareous soils – confirmed to remain present to at least baseline levels		Survey		Report on 5-year target as needed.	
J.1 Population increases of key invertebrate species of at least 10% are demonstrated in year 5 of this plan, through surveys, with records added to GIS database and held centrally (Chalkhill Blue, Small Blue, Glow-worm; and moth species *Nemophora minimella, Coptotriche angusticolella*, *Scythris grandipennis,* and *Aethes hartmanniana).*		Survey		Report on 5-year target as needed	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
L.1 Daisybank Field, Hopkins, Cowslip Meadow, and arable reversion land are managed without agricultural improvements and through implementing enhanced grazing and cutting regimes, as confirmed on annual review.	Cutting / grazing	Cutting / grazing	Cutting / grazing	Review	
M.1 Scrub habitat is confirmed as present with a mixed age of scrub in close proximity and with edge 'ecotone'' present, through survey in year 5 of the plan.		Survey		Review and report	
M.2 Scrub within SSSI – only maximum of 15% within designated boundary each year				Review	
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks			Scrub & tree works	Scrub & tree works	

and working methods to prevent disturbance or harm to protected species.					
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS and adequately protected through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas				Review	
O.2 2 new veteranised trees (on average) created each year and recorded in GIS				Create and record	Where resources allow
Q.1 Rock exposure – compliance with Natural England geological objectives for SSSI confirmed on annual review				Review	
S.1 Drystone walls – extent and connectivity confirmed to remain at least as at year 0 of the plan by year 5		Record		Record and review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.1 Hedgerows - extent and connectivity confirmed to remain at least as at year 0 of the plan by year 5		Record		Record and review	
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.1.2 Woodland - extent and connectivity confirmed to remain at least as at year 0 of the		Record		Record and review	

plan by year 5 (except where encroaching on grassland priority areas)					
U.2.1, U.2.2 Unmanaged woodland areas to be selectively thinned by 50% within first 5 years of the plan, following habitat mapping during annual Habimapping update.		Record and mark up work areas		Woodland thinning activity and recording	Where resources allow
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

14.2 Ravensgate Common

Year 1

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, C.1 All works to comply with LWS citation and monitoring priorities, potential SFI agreement, commitments, and legal species protection.	Review	Review	Review	Review and report as needed	
A.4, A.5, A.6. A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
A.10.1 All Relevant Habitats Baseline reptile surveys	Sample of all suitable habitats		Sample of all suitable habitats	Report and update GIS records	Where resources allow

A.10.2 All Relevant Habitats Baseline mammal surveys	Sample of all suitable habitats		Sample of all suitable habitats	Report and update GIS records	Where resources allow
C.3.1 Commission design of interpretation panels		Brief & funding	Commission	Design agreed	
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable Condition through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect, and targeted vegetation control		Cutting	Grazing	Grazing	
D.2, H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub management	Scrub management	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
N.1 Scrub habitat supporting confirmed ((or potential) protected species populations recorded in GIS and adequately protected through planning				Review	

works timing, extent, and methods, to include retaining understorey habitat in grazed areas					
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.1.1 Native woodland cover is recorded in GIS system by end of year 1					
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 2

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, C.1 All works to comply with LWS citation and monitoring priorities, potential SFI agreement, commitments, and legal species protection.	Review	Review	Review	Review and report as needed	
A.4, A.5, A.6, A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
C.3.2 Install 2 x interpretation panels		Brief and funding	Commission	Installed	
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable through annual review		Walkover survey			

D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect, and targeted vegetation control		Cutting	Grazing	Grazing	
D.2 H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub management	Scrub management	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS and adequately protected				Review	

through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas					
P.1 Trees - crevice and cavity features supporting confirmed or potential protected species populations recorded in GIS system by end of year 2	Record	Record	Record	Record and review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 3

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, C.1 All works to comply with LWS citation and monitoring priorities, potential SFI agreement, commitments, and legal species protection.	Review	Review	Review	Review and report as needed	

A.4, A.5, A.6, A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
C.3.3 Maintain interpretation panels				Check and implement repairs as needed	
D.1.1 Species-rich Calcareous Grassland confirmed in Favourable Condition through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect and targeted vegetation control		Cutting	Grazing	Grazing	
D.2 H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub management	Scrub management	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	

K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS, and adequately protected through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas				Review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 4

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, C.1 All works to comply with LWS citation and monitoring priorities, potential SFI agreement, commitments, and legal species protection.	Review	Review	Review	Review and report as needed	

A.4, A.5, A.6, A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS	Review	Review	Review	Review and report as needed	
A.8 Non-native invasive species, pests, and diseases are mapped within GIS records, and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
C.3.3 Maintain interpretation panels				Check and implement repairs as needed	
D.1.1 Specie-rich Calcareous Grassland confirmed in Favourable Condition through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Species-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect, and targeted vegetation control		Cutting	Grazing	Grazing	
D.2 H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub management	Scrub management	
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	

K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
N.1 Scrub habitat supporting confirmed (or potential) protected species populations recorded in GIS, and adequately protected through planning works timing, extent, and methods, to include retaining understorey habitat in grazed areas				Review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

Year 5

Habitat & Management Activity	**Spring March – May** Work Areas	**Summer June – August** Work Areas	**Autumn September – November** Work Areas	**Winter December – February** Work Areas	**Notes**
A.1, A.2, A.3, C.1 All works to comply with LWS citation and monitoring priorities, potential SFI agreement, commitments, and legal species protection.	Review	Review	Review	Review and report as needed	
A.4, A.5, A.6. A.7 Laision with Cotswolds Nature Recovery Plan, Cheltenham Borough Council's	Review	Review	Review	Review and report as needed	

Climate Strategy, initiatives to conserve and enhance species recovery, enhance habitat connectivity and control invasive non-native species, ensured through ongoing review and recording within central systems including GIS					
A.5 Connectivity of habitats and species relating to key Features maintained and enhanced within the site by year 5, by review of mapped habitats				Review and report as needed	
A.8 Non-native invasive species, pests and diseases are mapped within GIS records and action to control these is undertaken.	Record	Record	Record	Record and map as needed	Where resources allow
A.9 Grassland and scrub quadrat surveys		Sample of all suitable habitats			
A.10.1 All Relevant Habitats Update reptile surveys	Repeat year 1 Sample of all suitable habitats		Repeat year 1 Sample of all suitable habitats	Report and update GIS records	Where resources allow
A.10.2 All Relevant Habitats Update mammal surveys	Repeat year 1 Sample of all suitable habitats		Repeat year 1 Sample of all suitable habitats	Report and update GIS records	Where resources allow
C.3.3 Maintain interpretation panels				Check and implement repairs as needed	
D.1.1 Specie-rich Calcareous Grassland confirmed in Favourable Condition through annual review		Walkover survey of target areas			
D.1.2,1, D.1.2.2, D.1.2.3 Specie-rich Calcareous Grassland areas managed with increased levels of grazing/cut and collect, and targeted vegetation control		Cutting	Grazing	Grazing	
D.2, H.2 Engagement with Nature Recovery Network planning and support of enhancement of adjacent calcareous grassland habitats, and grassland and scrub mosaics, confirmed on annual review.				Review	
E.1 Mapped primroses and cowslips increase by at least 10% coverage in years 5 as measured through Butterfly Conservation and local volunteer surveys, with records added to GIS database and held centrally.		Surveys in species rich calcareous grassland		Review and inclusion in GIS central database	

E.2 Population increases of Duke of Burgundy butterfly of at least 10% are demonstrated in year 5 through Butterfly Conservation and local volunteer surveys, with records added to GIS database and held centrally.		Surveys in species rich calcareous grassland		Review and inclusion in GIS central database	
F.1 Population increases of key invertebrate species of at least 10% and mosaic of calcareous grassland and scrub habitat, demonstrated in year 5 through surveys, with records added to GIS database and held centrally (chalkhill blue, small blue, and glow-worm; and moth species *Nemophora minimella, Coptotriche angusticolella*, *Scythris grandipennis,* and *Aethes hartmanniana).*		Surveys in species rich calcareous grassland		Review and inclusion in GIS central database	
H.1.1 Scrub management activities to retain Favourable Condition, with 40 – 50% scrub/tree cover and a mixture of scrub ages, are present in close proximity and with edge 'ecotones', through annual review and more detailed survey in year 5		Survey		Review and record	
H.1.2 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub management	Scrub management Review and record	
I.1 Suitable Roman snail habitat – open sunny grassland adjacent to rough grassland/scrub and loose calcareous soils – confirmed to remain present to at least baseline levels		Survey		Report on Year 5 target as needed	
J.1 Population increases of key invertebrate species of at least 10% are demonstrated in year 5 of this plan, through surveys, with records added to GIS database and held centrally (chalkhill blue, small blue, and glow-worm; and moth species		Survey		Report on Year 5 target as needed	

***Nemophora minimella*, *Coptotriche angusticolella*, *Scythris grandipennis,* and *Aethes hartmanniana*).**					
K.1 K.2 Adder Project areas and records of adder and other reptiles are held within GIS and/or other database(s) and are referred to in planning locations, methods and seasonal timing of works	Record	Record	Record	Review	
K.3 Additional Adder Project areas and opportunities to enhance connectivity between habitats are implemented				Project works	Where resources allow
M.1 Scrub habitat is confirmed as present with a mixed age of scrub in close proximity and with edge 'ecotone'' present, through survey in year 5 of the plan.		Survey		Review and report	
M.3 Scrub management and tree thinning activities will be limited to between 1st October and 28th February annually, to avoid the bird nesting season. Exceptions may apply due to other conflicting species and management issues for small scale localised works, preceded by protected species checks and working methods to prevent disturbance or harm to protected species.			Scrub & tree works	Scrub & tree works	
N.1 Scrub habitat supporting confirmed or potential protected species populations recorded in GIS and adequately protected through planning works timing, extent and methods, to include retaining understorey habitat in grazed areas		Survey		Review	
S.1 Drystone walls – extent and connectivity confirmed to remain at least as at year 0 of the plan by year 5				Record and review	
S.2 Drystone walls – any enhancement of existing or new wall sections recorded in GIS on annual review				Review and record	Where resources allow
T.1 Hedgerows - extent and connectivity confirmed to remain at least as at year 0 of the plan by year 5		Record		Record and review	
T.2 Hedgerows – only cut maximum of one side of each hedgerow in any one year so that alternate sides are cut over 2 years, confirmed through annual review				Cutting, review and record	
T.3 Hedgerows – any restoration or enhancement of hedgerows recorded in GIS on annual review				Review and record	Where resources allow

U.1.2 Woodland - extent and connectivity confirmed to remain at least as at year 0 of the plan by year 5 (except where encroaching on grassland priority areas)		Record		Record and review	
U.3.1, U.3.2 Non-native plant species removed following inclusion in annual Habimapping update		Survey	Tree and plant removal works	Review and record	Where resources allow

15 Common Standards Monitoring of Lowland Calcareous Grassland

This chapter has been included as an **Annex** to the Management Plan to assist in monitoring progress towards Favourable Conservation Status (FCS).

Natural England provides guidance on Common Standards Monitoring (CSM) of Lowland Calcareous Grassland (NVC Types CG3, CG4, CG5) with a view to achieving Favourable Conservation Status.

It is recommended that progress towards achieving the implemented in the 5-year Action Plans is seasonally monitored using **the CSM Recording Forms** provided in sections A.2.3 and A.2.4 of this Annex.

Favourable Conservation Status (FCS)

'Favourable conservation status is the minimum threshold at which we can be confident that the habitat, and its associated species, are thriving in England and are expected to continue to thrive sustainably in the future.' It describes habitat quality by defining appropriate **structure and function attributes.**

Structure attributes:

Typical vegetation community and species composition at desired frequency and cover.

Natural pattern of vegetation zonation/transitions/mosaics.

Low cover of undesirable species.

The presence of some bare ground for regeneration niches and supporting habitat for specialist Invertebrates, vascular plants, bryophytes, lichens and fungi.

The presence of rock outcrops, limestone pebbles and flints especially in relation to bryophytes and lichens.

Micro and macro topographic heterogeneity.

The presence of ant hills of the yellow meadow ant in sites within the species natural range (3.1).

Vegetation heterogeneity (including scattered scrub of different age classes) and suitable 'floweriness' (nectar/pollen resources) to benefit fauna especially invertebrates (See Webb and others 2009)].

Function attributes:

Properties of the underlying geology (solid and drift) – calcareous rocks and drift deposits, including equivalent artificial alkaline substrates.

Properties of the underlying soil types within typical values for the habitat, including: structure, bulk density, total carbon, pH, exchangeable soil calcium (Ca), exchangeable soil acidity, soil nutrient status and fungal: bacterial ratio. For this feature, soil P index should typically be index 0 (less than 9 mg per litre). P indices of

Supporting off-site habitat for example, contiguous or connected areas of suitable habitats.

Functional connectivity with the wider landscape.

Concentrations and deposition of air pollutants at or below the site-relevant Critical Load or Level values.

Suitable grazing management by livestock appropriate to deliver conservation objectives, usually within the range 0.15 to 0.6 LU/ha/year depending on site productivity and conservation objectives.

Presence and activity of rabbits at sustainable levels (principally creation of bare ground and short turf) to deliver habitat and species objectives at selected sites.

Biotic and abiotic processes which create and maintain bare ground and early successional communities (for example, slope processes – soil creep, solifluction).

Quality of habitat patches: At least 95% of the favourable area of the habitat meets the structure and function requirements as described above.

[Reference: The value of the Natural England specification of **Favourable Conservation Status (FCS)** for Lowland Calcareous Grassland in England in setting contextual standards. (Jefferson, R.G: 2nd Edition March 2024), https://publications.naturalengland.org.uk/publication/5615802675101696].

Favourable Condition (FC) Assessment

English Nature's Research Report 315 sets out criteria for assessing the condition of individual Lowland Calcareous Grassland National Vegetation Classification (NVC) types, or groups of similar NVC types. The variants within CG3/4/5 grasslands are those most typical of the Cotswolds limestone grasslands and which are found on our escarpment.

The site recording proformas on pages 43/44 of the report are set out below and can be copied for site monitoring purposes.

NE has also produced Common Standards Monitoring guidance for 'Threatened' plant species Common Standards Monitoring Guidance for Vascular Plants | JNCC Resource Hub , which should be used to assess populations of the 4 species present, or previously and potentially present, on Charlton Kings Common.

[Reference: The use of **Common Standards Monitoring (CSM**) in the assessment of 'Favourable Condition' of Leckhampton Hill and Charlton Kings Common Site of Special Scientific Interest (SSSI), Ravensgate Common Key Wildlife Site (KWS), and other lowland calcareous grassland within the Cheltenham escarpment grasslands. (Robertson, H.J. and Jefferson, R.G.: 2000, https://publications.naturalengland.org.uk/publication/64033)]

Common Standards Monitoring (CSM)

- The estimation of frequency of positive and negative indicator species is particularly important in the rapid assessment method as it can make the difference between an interest feature being favourable or unfavourable.
- At each stopping place, the recorder should look for the indicator species in a **'search area'** comprising the immediate 3-4 metre area. The easiest way is to search two 1 metre diameter semi-circles around where you are standing.

- **Two to three minutes** should be the maximum time required to search at each stopping point because the number of indicators present on any one site is usually limited.
- It is better **to pre-determine an approximate stopping distance, say every 20 paces**, depending on the dimensions of the route followed, rather than having to 'choose' a place which leads to worries over subjectively picking a 'good bit' or a 'bad bit'. It does not matter if paces are uneven, as the aim is merely to be more objective about where to stop.
- **The route of the walk should cross the entire area to be assessed**. It can be a W shape or a squashed, twisted or extended version, depending on the shape of the area to be assessed. It is useful to note this route on the map for future comparisons, particularly if a future observer gets a very different result.
- The record card is to be completed by transferring field records from the **Structured Walk Recording Form** (see below)

Common Standards Monitoring of Lowland Calcareous Grasslands

Site Name:

Unit/subdivision reference: ***Date***:

Condition: Favourable maintained/Favourable recovered /Unfavourable improving/ Unfavourable no change/Unfavourable declining/Partially destroyed/Destroyed

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Recommended visiting period: May – July
Recommended frequency of visits: Site-specific decision

Key management activities affecting condition to discuss with site manager

Grazing intensity / stocking rate	FYM input
Grazing period	Other inputs
Supplementary feeding	Stock type
Burning	Scrub and weed control

Attribute (*= mandatory attribute: one failure among mandatory attributes = unfavourable condition)	**Target**	**Estimate for attribute**
*Extent of community (recoverable reduction = unfavourable; non-recoverable reduction = partially destroyed)	No loss without prior consent	(Describe and refer to map)
*Sward composition: grass/herb (i.e. non-Graminae)	ratio 40-90% herbs	
*Sward composition: frequency of positive indicator species/taxa: Rare (R) Occasional (O), Frequent (F). *Brachypodium pinnatum ( ), Bromopsis erecta ( ). Anthyllis vulneraria ( ), Asperula cynanchica ( ), Campanula glomerata ( ), Cirsium acaule ( ), Filipendula vulgaris ( ),Galium verum ( ), Gentianella spp. ( ) Helianthemum nummularium ( ) Hippocrepis comosa ( ), Leontodon hispidus/L. saxatilis ( ), Leucanthemum vulgare ( ), Linum catharticum ( ), Lotus corniculatus ( ), Pilosella officinarum (=Hieracium pilosella) ( ), Plantago media ( ), Polygala spp ( ), Primula veris ( ), Sanguisorba minor ( ), Scabiosa columbaria ( ), Succisa pratensis ( ), Thymus spp. ( )*	Bromopsis erecta (if CG3) or Brachypodium pinnatum (if CG4), or both (if CG5) Frequent (F) plus at least two species/taxa frequent and four Occasional (O) throughout the sward	
*Sward composition: CG3 only: cover of *Brachypodium pinnatum*.	No more than 10% cover	
*Sward composition: frequency and % cover of all scrub and tree species, *excluding Juniperus communis*, considered together. NB If scrub/tree species are more than occasional throughout the sward but less than 5% cover, they are soon likely to become a problem if grazing levels are not sufficient or if scrub control is not being carried out.	No more than 5% cover.	

*Sward composition: frequency and % cover of negative indicator species/taxa. *Cirsium arvense* ( ), *Cirsium vulgare* ( ), *Rumex crispus* ( ), *Rumex obtusifolius* ( ), *Senecio jacobaea* ( ), *Urtica dioica* ( ) *Eupatorium cannabinum* ( )	No species/taxa more than occasional throughout the sward or singly or together more than 5% cover	
Sward structure: average height	2-15 cm	
Sward structure: litter in a more or less continuous layer, distributed either in patches or in one larger area.	Total extent no more than 25% of the sward	
Sward structure: extent of bare ground (not rock) distributed through the sward, visible without disturbing the vegetation.	No more than 10%	
Sward structure: rabbit grazing and disturbance levels, localised bare ground around rabbit warrens.	No more than 0.05 ha, i.e. approximately 20 x 20 metres	

Structured Walk Recording Form

Frequencies: totals out of 20 stops. 1-4 = rare, 5-8 = occasional, 9+ = frequent or more

Species recorded at each stop	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Total
POSITIVE INDICATORS - **Record presence/absence in each cell**																					
Brachypodium pinnatum Tor grass																					
Bromopsis erecta Upright Brome																					
Anthyllis vulneraria Kidney vetch																					
Asperula cynanchica Squinancywort																					
Campanula glomerata Clustered bellflower																					
Cirsium acaule Stemless thistle																					
Filipendula vulgaris Dropwort																					
Galium verum Lady's bedstraw																					
Gentianella spp Gentians																					
Helianthemum nummulari Common Rockrose																					
Hippocrepis comosa Horseshoe vetch																					
Leontodon hisp/L. saxatilis Bristly & Lesser hawkbit																					
Leucanthemum vulgare Oxeye daisy																					
Linum catharticum Fairy flax																					
Lotus corniculatus Bird's-foot trefoil																					
Hieracium pilosella Mouse-ear-hawkweed																					
Plantago media Hoary plantain																					
Polygala spp Milkwort																					
Primula veris Cowslip																					
Sanguisorba minor Salad burnet																					

Scabiosa columbaria Small scabious																				
Succisa pratensis Devil's bit scabious																				
Thymus spp. Thyme																				
NEGATIVE INDICATOR SPECIES/TAXA - **Record % cover in each cell**																				
Cirsium arvense Creeping thistle																				
Cirsium vulgare Spear thistle																				
Rumex crispus Curled dock																				
Rumex obtusifolius Broad leaved dock																				
Senecio jacobaea Ragwort																				
Urtica dioica Common nettle																				
Eupatorium cannabinum Hemp -agrimony																				
ADDITIONAL SPECIES OF NOTE																				

FACTORS TO BE RECORDED ON SITE RECORD CARD		
*Extent of community (recoverable reduction = unfavourable; non-recoverable reduction = partially destroyed)	No loss without prior consent	**Describe and refer to map**
*Sward composition: grass/herb (i.e. non-Graminae)	ratio 40-90% herbs	
*Sward composition: **CG3 only**: cover of *Brachypodium pinnatum*.	No more than 10% cover	
*Sward composition: frequency and % cover of all scrub and tree species considered together	No more than 5% cover.	
Sward structure: average height	2-15 cm	
Sward structure: litter in a more or less continuous layer, distributed either in patches or in one larger area.	Total extent no more than 25% of the sward	
Sward structure: extent of bare ground (not rock) distributed through the sward, visible without disturbing the vegetation.	No more than 10%	
Sward structure: rabbit grazing and disturbance levels, localised bare ground around rabbit warrens.	No more than 0.05 ha, i.e. approx. 20mx20m	

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Species records

Butterfly Conservation, Duke of Burgundy butterfly annual survey results

Meredith, Serena and Guy, Butterfly and Moth records

Various records from stakeholders, Ravensgate Common

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18 Appendixes

18.1 Habitat Classification and Descriptions

Leckhampton Hill & Charlton Kings Common

UKHab v2 Classification	UKHab v2 Description	Broad Habitat	Habitat Map Code
g2a	Lowland calcareous grassland	grassland	F12
g2a	Lowland calcareous grassland	grassland	F13
g2a	Lowland calcareous grassland	grassland	F19
g2a	Lowland calcareous grassland	grassland	F23
g2a	Lowland calcareous grassland	grassland	F39
g2a	Lowland calcareous grassland	grassland	F51
g2a	Lowland calcareous grassland	grassland	F55
g2a	Lowland calcareous grassland	grassland	F64
g2a	Lowland calcareous grassland	grassland	F65
g2a	Lowland calcareous grassland	grassland	F97
g2a	Lowland calcareous grassland	grassland	F98
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F101
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F104
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F14
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F17
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F26
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F28
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F38
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F4
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F56
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F7
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F88
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	F96

g3c	Other neutral grassland	grassland	F81
g3c5	Arrhenatherum neutral grassland	grassland	F16
g3c5	Arrhenatherum neutral grassland	grassland	F18
g3c5	Arrhenatherum neutral grassland	grassland	F24
g3c6	Lolium-Cynosurus neutral grassland	grassland	F76
g4	Modified grassland	grassland	F68
h3d	Bramble scrub	scrub	F48
h3e	Gorse scrub	scrub	F100
h3e	Gorse scrub	scrub	F110
h3e	Gorse scrub	scrub	F27
h3e	Gorse scrub	scrub	F33
h3e	Gorse scrub	scrub	F34
h3e	Gorse scrub	scrub	F35
h3e	Gorse scrub	scrub	F36
h3e	Gorse scrub	scrub	F37
h3e	Gorse scrub	scrub	F45
h3e	Gorse scrub	scrub	F47
h3e	Gorse scrub	scrub	F52
h3e	Gorse scrub	scrub	F95
h3f	Hawthorn scrub	scrub	F54
h3f	Hawthorn scrub	scrub	F63
h3f	Hawthorn scrub	scrub	F66
h3f	Hawthorn scrub	scrub	F86
h3h	Mixed scrub	scrub	F60
h3h	Mixed scrub	scrub	F61
h3h	Mixed scrub	scrub	F69
h3h	Mixed scrub	scrub	F84
h3h	Mixed scrub	scrub	F85
h3h	Mixed scrub	scrub	F87
h3h	Mixed scrub	scrub	F91
h3h	Mixed scrub	scrub	F93
u1a	Open mosaic habitats on previously developed land	urban	F82
u1c	Artificial unvegetated, unsealed surface	urban	F107
u1c	Artificial unvegetated, unsealed surface	urban	F30
u1c	Artificial unvegetated, unsealed surface	urban	F99

w1f	Lowland mixed deciduous woodland	woodland	F105
w1c	Lowland beech and yew woodland	woodland	F67
w1c	Lowland beech and yew woodland	woodland	F79
w1f	Lowland mixed deciduous woodland	woodland	F10
w1f	Lowland mixed deciduous woodland	woodland	F11
w1f	Lowland mixed deciduous woodland	woodland	F15
w1f	Lowland mixed deciduous woodland	woodland	F20
w1f	Lowland mixed deciduous woodland	woodland	F21
w1f	Lowland mixed deciduous woodland	woodland	F22
w1f	Lowland mixed deciduous woodland	woodland	F3
w1f	Lowland mixed deciduous woodland	woodland	F40
w1f	Lowland mixed deciduous woodland	woodland	F46
w1f	Lowland mixed deciduous woodland	woodland	F49
w1f	Lowland mixed deciduous woodland	woodland	F5
w1f	Lowland mixed deciduous woodland	woodland	F53
w1f	Lowland mixed deciduous woodland	woodland	F6
w1f	Lowland mixed deciduous woodland	woodland	F62
w1f	Lowland mixed deciduous woodland	woodland	F72
w1f	Lowland mixed deciduous woodland	woodland	F8
w1f	Lowland mixed deciduous woodland	woodland	F83
w1f	Lowland mixed deciduous woodland	woodland	F9
w1f7	Other lowland mixed deciduous woodland	woodland	F108
w1f7	Other lowland mixed deciduous woodland	woodland	F2
w1f7	Other lowland mixed deciduous woodland	woodland	F29
w1f7	Other lowland mixed deciduous woodland	woodland	F44
w1f7	Other lowland mixed deciduous woodland	woodland	F57
w1f7	Other lowland mixed deciduous woodland	woodland	F59
w1f7	Other lowland mixed deciduous woodland	woodland	F70
w1f7	Other lowland mixed deciduous woodland	woodland	F71
w1f7	Other lowland mixed deciduous woodland	woodland	F74
w1f7	Other lowland mixed deciduous woodland	woodland	F75
w1f7	Other lowland mixed deciduous woodland	woodland	F80
w1f7	Other lowland mixed deciduous woodland	woodland	F89
w1f7	Other lowland mixed deciduous woodland	woodland	F90
w1f7	Other lowland mixed deciduous woodland	woodland	F92
w1f7	Other lowland mixed deciduous woodland	woodland	F94

w1g	Other broadleaved woodland	woodland	F1
w1g	Other broadleaved woodland	woodland	F102
w1g	Other broadleaved woodland	woodland	F103
w1g	Other broadleaved woodland	woodland	F106
w1g	Other broadleaved woodland	woodland	F31
w1g	Other broadleaved woodland	woodland	F32
w1g	Other broadleaved woodland	woodland	F41
w1g	Other broadleaved woodland	woodland	F42
w1g	Other broadleaved woodland	woodland	F50
w1g	Other broadleaved woodland	woodland	F58
w1h5	Other woodland - mixed - mainly broadleaved	woodland	F78
w2c	Other coniferous woodland	woodland	F25
w2c	Other coniferous woodland	woodland	F43
w2c	Other coniferous woodland	woodland	F73
w2c	Other coniferous woodland	woodland	F77

Habitat Map Code	**Secondary Classification**	**Additional comments**
F1	Tall herb, Semi-natural woodland, Complex woody structure, Young trees - self-set, Recent Management, Accessible natural greenspace, Nature reserve	
F2	Coppice, Native, Felled, High Forest, Young trees - self-set, Bare ground, Active Management, Accessible natural greenspace, Nature reserve, Track, Mesic, Fallen dead wood abundant	Sanicle, woodruff
F3	Tall herb, Ruderal/ ephemeral, Coppice, Grazed, Cattle grazed, Active Management, Accessible natural greenspace, Nature reserve, Track, Ecotone	Contains small open glade with pyramidal, common spotted orchid tway blade
F4	Tall herb, Ruderal/ ephemeral, Scattered scrub, Scattered trees, Grazed, Cattle grazed, Bare ground, Active Management, Nature reserve, Accessible natural greenspace, Rock outcrop, Anthills, Flower forage abundant	
F5	Tall herb, Ruderal/ ephemeral, Coppice, Active Management, Accessible natural greenspace, Nature reserve, Ecotone, Woodland open space	Contains small open glade with pyramidal, common spotted orchid tway blade. Bee orchid seen last year
F6	Bare ground, Accessible natural greenspace, Nature reserve	
F7	Scattered trees, Scattered scrub, Active Management, Accessible natural greenspace, Nature reserve, Track, Bare ground	Some orchids, pyramidal and CSO
F8	Tall herb, Nature reserve, Accessible natural greenspace, Woodland open space, Active Management, Cattle grazed	
F9	Tall herb, Nature reserve, Accessible natural greenspace, Woodland open space, Active Management, Cattle grazed	

F10	Tall herb, Complex woody structure, Ancient woodland indicators present, Nature reserve, Accessible natural greenspace, Woodland open space, Active Management, Young trees - self-set	Bluebells
F11	Tall herb, Nature reserve, Accessible natural greenspace, Woodland open space, Active Management, Cattle grazed, Standing dead wood abundant	
F12	Recent Management, Nature reserve, Accessible natural greenspace, Tall or tussocky sward	
F13	Scattered scrub, Active Management, Accessible natural greenspace, Nature reserve, Neutral grassland with calcicoles	
F14	Tall herb, Ruderal/ ephemeral, Grazed, Cattle grazed, Active Management, Nature reserve, Accessible natural greenspace, Rock outcrop, Track, Ecotone, Flower forage abundant, Sward type mosaic	Marbled White butterflies
F15	Tall herb, Complex woody structure, Nature reserve, Accessible natural greenspace, Woodland open space, Active Management, Young trees - self-set	
F16	Tall herb, Arable reversion grassland, Active Management, Nature reserve	
F17	Scattered scrub, Scattered trees, Tall herb, Active Management, Bare ground, Nature reserve, Quarry - hard rock	Lots of pyramidal orchids, bee orchid, CSO
F18	Scattered scrub, Tall herb, Active Management, Accessible natural greenspace, Nature reserve, Track, Bare ground	
F19	Scattered scrub, Scattered trees, Bare ground, Active Management, Accessible natural greenspace, Nature reserve, Anthills	
F20	Tall herb, Cattle grazed, Nature reserve, Active Management, Accessible natural greenspace, Woodland open space, Rock outcrop	
F21	Nature reserve, Accessible natural greenspace, Woodland open space, Active Management	
F22	High forest, Bare ground, Recent Management, Track	Old quarry used by mountain bikers
F23	Tall herb, Ruderal/ ephemeral, Scattered scrub, Scattered trees, Scattered dwarf shrubs, Grazed, Cattle grazed, Bare ground, Active Management, Nature reserve, Accessible natural greenspace, Rock outcrop	Lower slopes include scattered indicators for g2a5
F24	Tall herb, Arable reversion grassland, Active Management, Nature reserve	
F25	Plantation, Ancient woodland indicators present, Semi-natural woodland, Recent Management, Accessible natural greenspace, Young trees - self-set, Nature reserve	Dog's Mercury
F26	Tall herb, Ruderal/ ephemeral, Scattered scrub, Grazed, Cattle grazed, Active Management, Nature reserve, Flower forage abundant, Accessible natural greenspace	
F27	Scattered scrub, Scattered trees, Active Management, Accessible natural greenspace, Nature reserve	Orchids, lots of calcareous indicator
F28	Scattered scrub, Scattered trees, Active Management, Bare ground, Nature reserve, Track	Orchids, CSO and pyramidal
F29	Semi-natural woodland, Young trees - self-set, Active Management, Accessible natural greenspace, Track, Nature reserve, Bare ground	
F30	Scattered trees, Tall herb, Bare ground, Recent Management, Tree	Old kilns, lots of orchids (mostly common spotted orchid), large bank of moss

F31	Semi-natural woodland, Young trees - self-set, Recent Management, Accessible natural greenspace, Nature reserve, Woodland open space	
F32	Plantation, Semi-natural woodland, Veteran Trees, Complex woody structure, Young trees - self-set, Native, Recent Management, Accessible natural greenspace, Nature reserve	
F33	Scattered scrub, Recent Management, Nature reserve, Accessible natural greenspace	
F34	Scattered scrub, Recent Management, Accessible natural greenspace, Nature reserve, Track, Bare ground	
F35	Scattered scrub, Scattered trees, Active Management, Nature reserve, Bare ground, Track, Accessible natural greenspace	
F36	Scattered scrub, Bare ground, Active Management, Accessible natural greenspace, Nature reserve	
F37	Scattered scrub, Scattered trees, Tall herb, Active Management, Nature reserve, Bare ground, Track, Accessible natural greenspace	
F38	Scattered trees, Recent Management, Accessible natural greenspace, Nature reserve, Open grown trees, Track	
F39	Recent Management, Accessible natural greenspace, Track, Nature reserve	
F40	Tall herb, Cattle grazed, Nature reserve, Woodland open space, Active Management, Accessible natural greenspace	
F41	Semi-natural woodland, Veteran Trees, Ancient woodland indicators present, Active Management, Accessible natural greenspace	Sanicle
F42	Semi-natural woodland, Native, Young trees - self-set, Recent Management, Nature reserve	
F43	Plantation, Semi-natural woodland, Secondary woodland, Complex woody structure, Young trees - self-set, Active Management, Fallen dead wood abundant, Standing dead wood abundant	Dogs mercury
F44	Semi-natural woodland, Secondary woodland, Veteran Trees, Coppice, Complex woody structure, Ancient woodland indicators present, Young trees - self-set, Recent Management, Accessible natural greenspace, Nature reserve	Dogs mercury
F45	Scattered scrub, Bare ground, Active Management, Accessible natural greenspace, Nature reserve	
F46	Tall herb, Coppice, Nature reserve, Accessible natural greenspace, Woodland open space, Active Management, Cattle grazed	
F47	Scattered trees, Scattered dwarf shrubs, Tall herb, Ruderal/ ephemeral, Grazed, Cattle grazed, Active Management, Accessible natural greenspace, Nature reserve, Ecotone	
F48	Scattered trees, Grazed, Cattle grazed, Active Management, Accessible natural greenspace, Nature reserve, Ecotone	
F49	Tall herb, Nature reserve, Accessible natural greenspace, Woodland open space, Active Management, Cattle grazed	
F50	Tall herb, Ruderal/ ephemeral, Grazed, Cattle grazed, Active Management, Accessible natural greenspace, Nature reserve, Ecotone, Open grown trees, Woodland open space	Glades and rides grassy glades 30-40%

F51	Tall herb, Ruderal/ ephemeral, Scattered dwarf shrubs, Scattered scrub, Grazed, Cattle grazed, Active Management, Nature reserve, Accessible natural greenspace, Track, Ecotone, Flower forage abundant, Sward type mosaic, Anthills	
F52	Scattered scrub, Scattered trees, Scattered dwarf shrubs, Tall herb, Ruderal/ ephemeral, Grazed, Cattle grazed, Active Management, Nature reserve, Accessible natural greenspace, Ecotone	
F53	Tall herb, Cattle grazed, Nature reserve, Active Management, Accessible natural greenspace	
F54	Scattered trees, Scattered scrub, Active Management, Accessible natural greenspace, Nature reserve	
F55	Scattered trees, Active Management, Bare ground, Accessible natural greenspace, Nature reserve, Track	
F56	Scattered trees, Scattered scrub, Recent Management, Bare ground, Accessible natural greenspace, Track, Nature reserve, Rock outcrop	
F57	Ruderal/ ephemeral, Native, Young trees - self-set, Unmanaged	
F58	Semi-natural woodland, Complex woody structure, Young trees - self-set, Recent Management, Accessible natural greenspace, Nature reserve	
F59	Semi-natural woodland, Young trees - self-set, Recent Management, Accessible natural greenspace, Nature reserve	
F60	Scattered trees, Scattered dwarf shrubs, Recent Management	
F61	Scattered trees, Scattered dwarf shrubs, Recent Management, Accessible natural greenspace	
F62	Semi-natural woodland, Complex woody structure, Young trees - self-set, Bare ground, Active Management, Nature reserve, Accessible natural greenspace	
F63	Scattered trees, Active Management, Bare ground, Accessible natural greenspace, Nature reserve	White beam tree
F64	Scattered trees, Scattered scrub, Scattered dwarf shrubs, Tall herb, Ruderal/ ephemeral, Grazed, Cattle grazed, Bare ground, Active Management, Accessible natural greenspace, Nature reserve, Ecotone, Anthills, Rock outcrop	
F65	Scattered scrub, Scattered trees, Active Management, Bare ground, Accessible natural greenspace, Nature reserve, Anthills	
F66	Scattered trees, Recent Management, Accessible natural greenspace	
F67	Native, High forest, Track, Accessible natural greenspace	
F68	Scattered trees, Scattered scrub, Tall herb, Recent Management, Accessible natural greenspace, Nature reserve	
F69	Tall herb, Scattered scrub, Scattered trees, Recent Management, Accessible natural greenspace, Nature reserve	
F70	Complex woody structure, High forest, Native, Active Management, Accessible natural greenspace, Track, Mesic	bluebells
F71	Non-native, Ancient woodland indicators present, Native, Felled, High forest, Young trees - self-set, Bare ground, Active Management, Accessible natural greenspace, Track, Woodland open space	sanicle

F72	Tall herb, Semi-natural woodland, Non-native, Complex woody structure, Young trees - self-set, Bare ground, Recent Management, Accessible natural greenspace, Nature reserve, Track, Seasonally wet	European speedwell, in wet patch
F73	Semi-natural woodland, Secondary woodland, Non-native, Complex woody structure, Young trees - self-set, Active Management, Standing dead wood abundant, Fallen dead wood abundant, Woodland open space	bluebells
F74	Semi-natural woodland, Non-native, Complex woody structure, Native, Young trees - self-set, Active Management, Accessible natural greenspace, Nature reserve, Mesic	bluebells
F75	Semi-natural woodland, Non-native, Complex woody structure, Ancient woodland indicators present, Coppice, Native, Young trees - self-set, Active Management, Accessible natural greenspace, Nature reserve, Mesic, Fallen dead wood abundant, Standing dead wood abundant	bluebells; sanicle,
F76	Scattered trees, Tall herb, Scattered scrub, Non-native, Ancient woodland indicators present, Veteran Trees, Bare ground, Accessible natural greenspace, Active Management, Woodland open space, Invasive Non-Native Species, Anthills, Sward type mosaic	Dogs mercury, common violet, early purple violet; Twayblade, cowslips, strawberry, yellow rattle, lots of tree seedlings, mixture of woodland and grassland species
F77	Plantation, Semi-natural woodland, Secondary woodland, Veteran Trees, Complex woody structure, Ancient woodland indicators present	bluebells; Dog's mercury
F78	Semi-natural woodland, Secondary woodland, Veteran Trees, Complex woody structure, Ancient woodland indicators present, Young trees - self-set, Bare ground, Active Management, Accessible natural greenspace, Fallen dead wood abundant, Standing dead wood abundant	bluebells
F79	Semi-natural woodland, Veteran Trees, Coppice, Ancient woodland indicators present, Native, Felled, High forest, Bare ground, Recent Management, Track, Fallen dead wood abundant	
F80	Tall herb, Semi-natural woodland, Complex woody structure, Young trees - self-set, Recent Management, Accessible natural greenspace, Nature reserve	
F81	Scattered scrub, Tall herb, Ruderal/ ephemeral, Bare ground, Recent Management, Nature reserve	Red admiral
F82	Scattered scrub, Tall herb, Scattered trees, Ruderal/ ephemeral, Bare ground, Recent Management, Neglected, Nature reserve	
F83	Tall herb, Semi-natural woodland, Active Management, Accessible natural greenspace, Nature reserve	Mainly ash, there's a whitebeam, some hawthorn
F84	Scattered scrub, Scattered trees, Scattered bracken, Tall herb, Ruderal/ ephemeral, Neglected, Accessible natural greenspace, Nature reserve	
F85	Scattered trees, Scattered scrub, Scattered dwarf shrubs, Tall herb, Ruderal/ ephemeral, Neglected, Accessible natural greenspace, Nature reserve	
F86	Tall herb, Scattered trees, Recent Management, Accessible natural greenspace, Nature reserve	
F87	Active Management, Accessible natural greenspace, Nature reserve	
F88	Scattered trees, Recent Management, Accessible natural greenspace, Nature reserve	

F89	Veteran Trees, Non-native, Complex woody structure, Native, Young trees - self-set, Mesic, Track, Felled, Active Management, Accessible natural greenspace	
F90	Tall herb, Felled, Young trees - self-set, Bare ground, Active Management, Accessible natural greenspace, Nature reserve, Track, Mesic, Fallen dead wood abundant, Standing dead wood abundant	Lots of dead ash
F91	Scattered scrub, Scattered trees, Tall herb, Active Management, Accessible natural greenspace, Nature reserve, Track, Mesic	
F92	Scattered trees, Tall herb, Neglected, Accessible natural greenspace, Nature reserve, Ecotone	
F93	Scattered trees, Scattered scrub, Tall herb, Recent Management, Accessible natural greenspace, Nature reserve, Woodland open space	
F94	Tall herb, Non-native, Complex woody structure, Native, High forest, Young trees - self-set, Accessible natural greenspace, Mesic, Track, Invasive Non-Native Species	Some rhododendron
F95	Scattered trees, Tall herb, Recent Management, Accessible natural greenspace, Nature reserve	
F96	Recent Management, Accessible natural greenspace, Nature reserve	
F97	Scattered scrub, Scattered trees, Tall herb, Non-native, Veteran Trees, Recent Management, Accessible natural greenspace, Nature reserve, Invasive Non-Native Species	Buddleia davidii
F98	Scattered scrub, Scattered trees, Recent Management, Accessible natural greenspace, Nature reserve, Tall or tussocky sward	
F99	Scattered trees, Tall herb, Scattered scrub, Recent Management, Bare ground, Car Park, Nature reserve	
F100	Scattered trees, Recent Management, Accessible natural greenspace, Nature reserve	
F101	Scattered trees, Tall herb, Active Management, Track, Accessible natural greenspace, Nature reserve	
F102	Plantation, Accessible natural greenspace, Nature reserve	
F103	Tall herb, Semi-natural woodland, Complex woody structure, Young trees - self-set, Recent Management, Accessible natural greenspace, Nature reserve, Woodland open space	
F104	Scattered scrub, Scattered trees, Active Management, Bare ground, Nature reserve, Track	Orchids, CSO and pyramidal
F105	Semi-natural woodland, Secondary woodland, Coppice, Non-native, Complex woody structure, Ancient woodland indicators present, Veteran Trees, Young trees - self-set, Bare ground, Recent Management, Accessible natural greenspace, Fallen dead wood abundant	Dogs Mercury, Sanicle; Coppiced hazel, stands of Pinus nigra, some Larch, Scots Pine, cypress, but mostly Ash, some dying. Also Sycamore, Hawthorn, Box. Lots of Privet in places.
F106	Tall herb, Semi-natural woodland, Coppice, Native, Young trees - self-set, Bare ground, Recent Management, Nature reserve, Accessible natural greenspace, Track	Mostly hawthorn, sycamore, goat willow, ash, brambles round edges

Ravensgate Common

UKHab v2 Classification	UKHab v2 Description	Broad Habitat	Notes	Habitat Map Code
g2a	Lowland calcareous grassland	grassland	Upslope LCG - West	F5
g2a	Lowland calcareous grassland	grassland	Downslope LCG - West	F1
g2a	Lowland calcareous grassland	grassland	Not numbered on original plan. Part of F8?	F35
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	Band of Birch and Gorse Scrub below Hollow Way path	F23
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	Patch either side of lower track at west end	F25
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	Central slope; scrub over grassland	F22
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	Central slope; scrub over grassland	F21
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	By northern fence line along track; up to foot of old Cotswold Way	F20
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	Isolated patch within scrub at eastern end of slope	F19
g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	grassland	Far easterly section behind woodland. Currently well-established scrub but the aim is to retain / restore grassland with scrub mosaic	F8
g3	Neutral grassland	grassland	Lynch Lane Central	F4
g3a	Lowland meadows	grassland	Strip along northern fence line under Beech	F10
g3c6	Lolium-Cynosurus neutral grassland	grassland	semi-improved grassland SW arm plateau	F12
g3c6	Lolium-Cynosurus neutral grassland	grassland	Extensive strip of level-ground grassland through which the Cotswold Way passes	F6
h3d	Bramble scrub	scrub	Small patch of scrub at southern end of SW arm grassland	F14
h3e	Gorse scrub	scrub	Patch of scrub within CG2 community at far east end below pylon	F34
h3h	Mixed scrub	scrub	blackthorn scrub extending from hedge SW arm	F16

h3h	Mixed scrub	scrub	Blackthorn scrub extending from hedge SW arm	F15
h3h	Mixed scrub	scrub	Small patch of scrub above Hollow Way	F13
h3h	Mixed scrub	scrub	Band of Hazel/Hawthorn/Blackthorn scrub below western end of Cotswold Way below Wistley Plantation	F18
h3h	Mixed scrub	scrub	Gorse below Pat's seat (already removed)	F11
h3h	Mixed scrub	scrub	Blackthorn hedge extension at West corner of Wistley Plantation	F33
h3h	Mixed scrub	scrub	Strip of scrub below Vineyards western wall	F28
h3h	Mixed scrub	scrub	Scrub along lower track at West end	F29
h3h	Mixed scrub	scrub	Small patch of scrub below Hollow Way track	F26
h3h	Mixed scrub	scrub	Small patch of scrub below Hollow Way track	F27
h3h	Mixed scrub	scrub	Three separate patches of scrub within F1 at foot of Western slope	F24a
h3h	Mixed scrub	scrub	Three separate patches of scrub within F1 at foot of Western slope	F24b
h3h	Mixed scrub	scrub	Three separate patches within F1 at foot of Western slope	F24c
h3h	Mixed scrub	scrub	Small patch on lower slope east end	F31
h3h	Mixed scrub	scrub	Small patch at lower slope east end	F30
h3h	Mixed scrub	scrub	Strip of scrub immediately below Birch/Gorse community of F32?	F17
h3h	Mixed scrub	scrub	Band of Birch and Gorse scrub/trees at top of eastern slope below Cotswold Way	F32
w1g	Other broadleaved woodland	woodland	Lynch Lane - Central area East	F2
w1g	Other broadleaved woodland	woodland	East slope central block	F7
w1g	Other broadleaved woodland	woodland	Eastern hazel woodland block below pylon	F9
w1g	Other broadleaved woodland	woodland	Lynch Lane - Northern extent	F3

Habimap Map Code	Secondary Classification	Notes
F1	Scattered trees, Cattle grazed, Active Management, Accessible natural greenspace, Nature reserve	North facing steeply sloped ground areas between the scrub corresponded to NVC CG3d/CG4 noticeably dominated by tor grass
F2	Active Management, Accessible natural greenspace, Woodland open space	A number of large ash trees have recently been felled due to ash die back. Scrub habitat now dominating
F3	Active Management, Nature reserve	
F4	Scattered trees, Tall herb	
F5	Cattle grazed, Active Management, Nature reserve, Accessible natural greenspace	Northern portion of F5 (see division into F12) and small area of F6 correspond to NVC CG3b/CG4c
F6	Tall herb, Cattle grazed, Active Management, Accessible natural greenspace, Nature reserve	Less abundance of calcareous grassland indicators at the eastern end of the polygon west end rank - map, only a small area near the pylon corresponded to NVC CG3b/CG4c
F7	Active Management, Nature reserve	
F8	Scattered trees, Cattle grazed, Active Management, Accessible natural greenspace, Nature reserve	Some indicators of Lowland Hay Meadows present. Large number of common spotted orchids
F9	Active Management, Accessible natural greenspace, Woodland open space	Scrub rather than woodland? Lots of coppiced hazel here in September. Dead ash saplings
F10	Scattered trees, Tall herb, Active Management, Accessible natural greenspace, Nature reserve	Dominated by clematis and cleavers with a few grasses
F11		Gorse and hawthorn, elder, ash, clematis, bramble on sloping rough ground
F12	Scattered scrub, tall or tussocky sward	Hawthorn, blackthorn, gorse, rose
F13		Gorse and hawthorn, ash, clematis, goat willow. Rabbit signs and fox scat
F14		
F15		Gorse and bramble
F16		Gorse and bramble
F17		Bramble, occasional gorse, occasional hawthorn, blackthorn, oak, ash
F18		Hawthorn, hazel, holly, some larger with ruderal herbs below - nettle, rosebay willowherb
F19	Scattered scrub	Hazel dominated with other trees recently selectively removed
F20	Scattered scrub	Scrub with elder, rose, bramble, ash, at one end with wild clematis to western end
F21	Scattered trees	scattered young ash trees, all dead.
F22	Scattered scrub	Hawthorn, elder, ash, rose. Occasional hazel. Line of dead ash saplings top (S edge) of area. Roman Snails observed N end of this area.
F23	Scattered trees	Birch, sorbus, willow, hawthorn, rose, bramble, gorse with clematis at the East end
F24		Refers to three areas of scrub adjacent to one another. Hawthorn, bramble, clematis occasional orchids
F25		

F26		Hawthorn, dog rose, bramble, sorbus, field maple, ash saplings, willow. Occasional clematis
F27		Hawthorn, blackthorn, bramble, occasional sycamore and rose
F28		Linear scrub alongside drystone wall bordering site and footpath. Sorbus, bramble, clematis, rose, nettles, common hogweed
F29		Blackthorn, hawthorn, ash, clematis, field maple, sorbus, bramble, black bryony
F30		Hawthorn with taller ash, clematis in dense form, Roman snail.
F31		Dead ash saplings dominate with orchids
F32		Line of silver birch below mixed scrub
F33		Blackthorn and gorse dominant

18.2 Features Assessment and Selection Table

Feature - or key attribute / factor	Reasons for / Notes on Category Selection	Category H / M / L Priority or 'Species' note or Factor or Attribute or NA for the current ecological management plan
ED - Aalenian - Bajocian Cross Section through Middle Jurassic, Inferior Oolite (Lower, Middle, Upper) strata (Geological feature)	Nationally important but not ecological management feature	NA
Lowland calcareous grassland (CG3-5)	SSSI statutory monitoring feature and nationally important	High
Population of nationally scarce butterfly species - Hamearis lucina, Duke of Burgundy	SSSI statutory monitoring feature and nationally important, Cotswold Landscape connectivity priority	High
Scrub	SSSI monitoring feature, important for many species and as a mosaic with grassland	High
Grassland flora - Fly orchid *Ophrys insectifera*	SSSI monitoring feature, vulnerable GB and Cotswold plan priority	Species - High
Grassland flora - Purple milk vetch *Astragalus danicus* [No records on GCER data search]	SSSI monitoring feature, endangered GB and Cotswold plan priority	Species - High
Grassland flora - Musk orchid *Herminium monorchis*	SSSI monitoring feature, vulnerable GB and Cotswold plan priority	Species - High
Grassland flora - Meadow clary *Salvia pratensis*	SSSI monitoring feature, near threatened GB and Cotswold plan priority	Species - High
Woodland flora - Ivy broomrape - *Orobanche hederae* [No records on GCER data search]	SSSI Citation species	Species - High
Woodland flora - White helleborine *Cephalanthera damasonium* [No records on GCER data search]	SSSI Citation species, CBRP Priority	Species - High
Woodland flora - Greater butterfly orchid *Platanthera chlorantha*	SSSI Citation species, GB near threatened	Species - High
Scrub birds - Meadow pipit *Anthus pratensis*	SSSI Citation species, GB near threatened	Species - High
Scrub birds - Grasshopper warbler *Locustella naevia*	SSSI Citation species, GB near threatened, UK BAP Priority	Species - High
Dense hawthorn / blackthorn scrub - bird habitat	High Priority CNRP	High - sub feature of habitat / attribute
Invertebrates, butterfly - Small blue *Cupido minimus*	SSSI Citation species, GB near threatened, potential for monitoring	Species - Medium
Calcareous grassland (sheltered / S facing) with kidney vetch Anthyllis vulneraria (essential habitat for Small Blue)	SSSI Citation feature, high priority CNRP	High - sub feature of

		habitat / attribute
Invertebrates, butterfly - Chalk hill blue *Polyommatus (Lysandra) coridon*	SSSI Citation feature, GB near threatened, Red List Least Concern	Species - High
Calcareous grassland (sheltered / S facing) with horseshoe vetch *Hippocrepis comosa* (essential habitat for Chalk Hill Blue)	SSSI Citation feature, CNRP priority	High - sub feature of habitat / attribute
Scrubby grassland with sunny woodland / scrub clearings and Primrose *Primula vulgaris* and Cowslip *Primula veris* (essential habitat for Duke of Burgundy)	SSSI Citation feature, key for flagship species	High - sub feature of habitat / attribute
Duke of Burgundy Butterfly Conservation funded project areas requiring management and monitoring	Funding commitment	High - sub feature of habitat / attribute
Invertebrates, butterfly - Pearl-bordered fritillary *Boloria euphrosyne* [No records on GCER data search]	SSSI Citation, GB endangered	Species - High
Common dog violet - habitat for Pearl-bordered fritillary	SSSI Citation feature, key for flagship species	High - sub feature of habitat / attribute
Slender-footed robberfly *Leptarthus brevirostris* [No records on GCER data search]	SSSI Citation Species - but no recent records?	Species - Medium
Reptiles - Adder *Vipera berus*	Protected Species - Legislation to be met - S41 Species, Cotswold Plan species, flagship popular species and potential for monitoring	Species - High
Reptiles - other species - Slow worm *Anguis fragilis*, common lizard *Zootoca vivipara*, grass snake *Natrix helvetica*	Protected Species - Legislation to be met - S41 Species, flagship popular species and potential for monitoring	Species - High
Mosaic of habitats including scrub, mixed height grassland and walls / boulders / scree for reptiles	To be included in relevant habitats - note Protected Species issues	Attribute
Adder project GWT funded areas requiring management and monitoring	Protected Species - Legislation to be met - flagship popular species and potential for monitoring	Species - High - also Attribute
Mammals - Badger *Meles meles*	Protected Species - Legislation to be met	Species - High
Badger setts	Protected Species - Legislation to be met	Species - High - also Attribute
Mammals - Hazel dormouse *Muscardinus avellanarius*	Protected Species - Legislation to be met	Species - High
Hazel dormouse confirmed or connected habitats with records (scrub, tall herbs or grass, woodland etc and ground hibernation features)	Protected Species - Legislation to be met	Species - High - also Attribute
Horseshoe bat species	Protected Species - Legislation to be met - also Bats capes priority	Species - High
Crevice roosting bat species	Protected Species - Legislation to be met - also Batscapes priority	Species - High

Roman Snail *Helix potamia*	Protected Species - Legislation to be met - GB least priority, flagship popular species and potential for monitoring	High - Species - also Attribute??
Glow worm *Lampyris noctiluca*	GB least priority, flagship popular species and potential for monitoring	Medium - Species - also Attribute??
Coptotriche angusticolella (a moth)	Important local location, Nationally scarce B	High - Species
Nemophora minimella (a moth)	Important local location, Nationally scarce B	High - Species
Scythris grandipennis (a moth)	Important local location, Nationally scarce B	High - Species
Aethes hartmanniana (a moth)	Important local location, Nationally scarce B	High - Species
Cave(s) supporting roosting bats	Protected Species - Legislation to be met - also Batscapes priority	High - Species - also Attribute
Rock face crevices supporting roosting bats	Protected Species - Legislation to be met - also Batscapes priority	High - Species - also Attribute
Tree crevices and hollows supporting roosting bats	Protected Species - Legislation to be met - also Batscapes priority	High - Species - also Attribute
Trees or scrub supporting known nesting bird sites	Protected Species - Legislation to be met	High - Species - also Attribute
Rock faces supporting nesting birds	Protected Species - Legislation to be met	High - Species - also Attribute
Veteran / over mature and veteranised trees including ash *Fraxinus exelsior*	CNRP High priority	High
Boundary hedgerows with frequent ash	CNRP High priority	High
Boundary hedgerows (general)	CNRP High priority	High
Drystone walls	Cotswold landscape priority but requiring low level management	Medium
Bramble scrub	Key habitat feature of the site and important as shelter and mosaic habitat for species	High
Gorse scrub	Key habitat feature of the site and important as shelter and mosaic habitat for species	High
Quarry spoil with biological interest - flora of open ground and moderately bare ground	CNRP High priority	High
Landscape features - rock faces, quarries and spoil	Not ecological management feature	NA
Unimproved botanically rich lowland limestone grassland - Common Land designated	CNRP High priority	High
Unimproved botanically rich lowland limestone grassland - CG5a & b Tor grass / Upright brome grassland	CNRP High priority	High
Unimproved botanically rich lowland limestone grassland - grassland with scattered mature trees	CNRP High priority	High

Unimproved botanically rich lowland limestone grassland - grassland with scattered immature trees	CNRP High priority	High
Unimproved botanically rich lowland limestone grassland - grassland with scattered scrub	CNRP High priority	High
Neutral grassland with calcareous influences - species rich MG5 on deeper plateau soils with e.g. Common Spotted Orchid *Dactylorhiza fuchsii*	CNRP High priority	High
Improved, farmed grassland of layback land - species poor agricultural grasslands - Hopkins Field	Potential to enhance to higher value habitat and to enhance connectivity with main site	Medium
Amenity grassland or neutral grassland with calcareous influences - Daisybank Lane Meadow	Potential to enhance to higher value habitat and to enhance connectivity with main site	Medium
Woodland with veteran ash trees of landscape importance	Focus has been advised as grassland and scrub not woodland so exclude	NA
Plantation woodland - beech	Focus has been advised as grassland and scrub not woodland so exclude	NA
Plantation woodland - larch - quarry	Focus has been advised as grassland and scrub not woodland so exclude	NA
Plantation woodland - larch 1970s landscape feature	Focus has been advised as grassland and scrub not woodland so exclude	NA
Secondary woodland with ash and sycamore *Acer pseudoplatanus* dominant	Focus has been advised as grassland and scrub not woodland so exclude	NA
Archaeology - Iron age Hill Fort	Not ecological management feature	NA
Pre- C20th archaeology - The Gallops	Not ecological management feature	NA
C20th Industrial archaeology - Lime Kiln	Not ecological management feature	NA
C20th Industrial archaeology - Devil's Chimney	Not ecological management feature	NA
C20th Industrial archaeology - Incline	Not ecological management feature	NA
C20th Industrial archaeology - Sidings	Not ecological management feature	NA
Physical processes - water runoff - natural flood management features and access management - prevent erosion of tracks and paths	Not ecological management feature	Factor
Water sources for grazing animals	Not ecological management feature	Attribute
Shelter for grazing animals	Not ecological management feature	Attribute
Access points for grazing and management	Not ecological management feature	Factor
PROW and permissible footpaths	Not ecological management feature	Factor
Cycle tracks	Not ecological management feature	Factor
Car parks	Not ecological management feature	Factor
Access point for recreational use	Not ecological management feature	Factor
Signage	Not ecological management feature	NA
Interpretation panel or information point	Not ecological management feature	NA

Meadows - source of seeds / green hay - Cowslip Meadow and Hopkins	Not ecological management feature	NA
Winter sheltered grazing - Cowslip Meadow and Hopkins	Not ecological management feature	Attribute
Cattle gather structure - Hopkins	Not ecological management feature	Attribute
Species rich semi-improved grassland - MG6 (Ravensgate)	LWS designation	High (Ravensgate)
botanically rich lowland limestone grassland on north facing slope- CG5a & b Tor grass / Upright brome grassland (Ravensgate)	S41 habitat and LWS designation	High (Ravensgate)
Scrub (Ravensgate)	Key habitat feature of the site and important as shelter and mosaic habitat for species	High
Woodland with Birch *Betula pendula* and Sallow *Salix cinerea* (Ravensgate)	Cotswold CNRP Medium priority	Medium (Ravensgate)
Agri environment scheme commitments TBC	TBC	TBC

18.3 Natural England Views About Management

Views About Management

A statement of English Nature's views about the management of Leckhampton Hill And Charlton Kings Common Site of Special Scientific Interest (SSSI).

This statement represents English Nature's views about the management of the SSSI for nature conservation. This statement sets out, in principle, our views on how the site's special conservation interest can be conserved and enhanced. English Nature has a duty to notify the owners and occupiers of the SSSI of its views about the management of the land.

Not all of the management principles will be equally appropriate to all parts of the SSSI. Also, there may be other management activities, additional to our current views, which can be beneficial to the conservation and enhancement of the features of interest.

The management views set out below do not constitute consent for any operation. English Nature's written consent is still required before carrying out any operation likely to damage the features of special interest (see your SSSI notification papers for a list of these operations). English Nature welcomes consultation with owners, occupiers and users of the SSSI to ensure that the management of this site conserves and enhances the features of interest, and to ensure that all necessary prior consents are obtained.

Management Principles

Calcareous grassland

In order to maintain a species-rich sward and its associated insects and other invertebrates, calcareous grassland requires active management. Without management it rapidly becomes dominated by stands of rank grasses, such as Tor-grass. These grasses, together with the build up of dead plant matter, suppress less vigorous species and lower the diversity of the site. Eventually, the site will scrub over. Traditionally, management of calcareous grassland is achieved by grazing. The precise timing and intensity of grazing will vary both between and within sites, according to local conditions and requirements (such as type of stock or the needs of particular vegetation types, individual plants or animals; certain invertebrates, for example, can benefit from the presence of taller vegetation) but should aim to keep a relatively open sward without causing excessive poaching. Light trampling can be beneficial by breaking down leaf litter and providing bare patches for seed germination and some invertebrates. An element of managed scrub, both within and fringing calcareous grassland, can be of great importance to certain birds and invertebrates but excessive scrub should be controlled. No other management should be routinely required. The application of pesticides, including herbicides, or any fertilizer would be damaging and should be avoided.

Disused quarries, pits and cuttings

Disused quarries and road and rail cuttings form a very important part of the geological resource of England for two reasons. Firstly, many of these sites are in areas where natural geological exposures are rare or absent. Secondly, these sites often provide much better exposure of geological features than comparable natural exposures, as they reveal vertical rock sections not visible in natural outcrops.

Most disused quarries need active management to maintain exposure of the important geological features. This is because erosion rates are usually too low to ensure that fresh geological exposures are maintained naturally. Management usually involves periodic clearance of vegetation and rock debris. Vegetation growth is a particular problem for geological conservation in many inland disused quarries.

It may not be always practical or entirely necessary to maintain full exposure of the geological features on a site. Site management will often involve defining specific areas that need to be kept clear of vegetation.

The main threats to the conservation of disused quarries, pits and cuttings are landfill and developments which obscure the geological features. Such developments should be avoided where possible. However, where authorised landfill or development is planned, it may be possible to maintain a conservation face on the site. Similarly, restoration plans for quarries that have closed in recent years may also include the maintenance of a conservation face. In such cases, the conservation face should be maintained clear of vegetation and build-up of rock debris.

Collecting of geological specimens may be acceptable if undertaken in a responsible manner. However, there are some sites where the geological interest is very finite in nature and over-collecting can result in damage or destruction of the interest.

Similar principles apply to road and rail cuttings. Management of vegetation is often required to maintain the geological exposures. Any development or activity that leads to concealment of the interest features is likely to damage the site.

Operations likely to damage the special interest

Site name: Leckhampton Hill and Charlton Kings Common

OLD1001777

Ref. No.	Type of Operation
1	Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
2	The introduction of grazing and changes in the grazing regime (including type of stock, intensity or seasonal pattern of grazing and cessation of grazing).
3	The introduction of stock feeding and changes in stock feeding practice.
4	The introduction of mowing and changes in the mowing or cutting regime (including hay making to silage and cessation).
5	Application of manure, fertilisers and lime.
6	Application of pesticides, including herbicides (weedkillers).
7	Dumping, spreading or discharge of any materials.
8	Burning and changes in the pattern or frequency of burning.
9	The release into the site of any wild, feral or domestic animal*, plant or seed.
10	The killing or removal of any wild animal*, other than pest control.
11	The destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub, herb, moss, lichen, leaf-mould and turf.
12	The introduction of tree and/or woodland management+ and changes in tree and/or woodland management+.
13a	Drainage (including the use of mole, tile, tunnel or other artificial drains).
14	The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction through boreholes).
20	Extraction of minerals, including topsoil, subsoil and limestone.
21	Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
22	Storage of materials.
23	Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
24	Modification of natural or man-made features, including battering, buttressing, grading or seeding rock-faces or outcrops and infilling of quarries.
26	Use of vehicles likely to damage or disturb features of interest.
27	Recreational or other activities likely to damage features of interest.
28	The introduction of game management and changes in game management and hunting practice.

* ‘animal’ includes any mammal, reptile, amphibian, bird, fish or invertebrate.

\+ including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management.

18.4 Management Units and Proposed Management

Leckhampton Hill and Charlton Kings Common

Management Unit	Proposed Management	Habitat Map Code	UKHab v2 Classification	UKHab v2 Description
1	Mowing	F101	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F88	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F96	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F97	g2a	Lowland calcareous grassland
		F98	g2a	Lowland calcareous grassland
2	Mowing	F38	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F39	g2a	Lowland calcareous grassland
		F55	g2a	Lowland calcareous grassland
		F56	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
3	Mowing	F76	g3c6	Lolium-Cynosurus neutral grassland
4	Grazing Restricted	F104	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F19	g2a	Lowland calcareous grassland
		F23	g2a	Lowland calcareous grassland
		F26	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F28	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F4	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F51	g2a	Lowland calcareous grassland
		F64	g2a	Lowland calcareous grassland
		F65	g2a	Lowland calcareous grassland
		F7	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
5	Mowing	F17	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
		F18	g3c5	Arrhenatherum neutral grassland
6	Grazing Unrestricted	F16	g3c5	Arrhenatherum neutral grassland
		F24	g3c5	Arrhenatherum neutral grassland
7	Grazing Unrestricted	F68	g4	Modified grassland
		F81	g3c	Other neutral grassland

8	Mowing	F14	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)
9	Grazing Unrestricted	F12	g2a	Lowland calcareous grassland
		F13	g2a	Lowland calcareous grassland
10	Scrub Management	F100	h3e	Gorse scrub
		F95	h3e	Gorse scrub
11	Scrub Management	F86	h3f	Hawthorn scrub
		F87	h3h	Mixed scrub
		F91	h3h	Mixed scrub
		F93	h3h	Mixed scrub
12	Scrub Management	F54	h3f	Hawthorn scrub
		F60	h3h	Mixed scrub
		F61	h3h	Mixed scrub
		F63	h3f	Hawthorn scrub
		F66	h3f	Hawthorn scrub
13	Scrub Management	F27	h3e	Gorse scrub
		F47	h3e	Gorse scrub
		F48	h3d	Bramble scrub
		F52	h3e	Gorse scrub
14	Scrub Management	F110	h3e	Gorse scrub
		F33	h3e	Gorse scrub
		F34	h3e	Gorse scrub
		F35	h3e	Gorse scrub
		F36	h3e	Gorse scrub
		F37	h3e	Gorse scrub
		F45	h3e	Gorse scrub
15	Scrub Management	F69	h3h	Mixed scrub
		F84	h3h	Mixed scrub
		F85	h3h	Mixed scrub
16	Tree Thinning / Woodland Management	F1	w1g	Other broadleaved woodland
		F102	w1g	Other broadleaved woodland
		F103	w1g	Other broadleaved woodland
		F108	w1f7	Other lowland mixed deciduous woodland
		F92	w1f7	Other lowland mixed deciduous woodland
		F94	w1f7	Other lowland mixed deciduous woodland
17	Tree Thinning / Woodland Management	F31	w1g	Other broadleaved woodland
		F32	w1g	Other broadleaved woodland

		F42	w1g	Other broadleaved woodland
		F58	w1g	Other broadleaved woodland
18	Tree Thinning / Woodland Management	F2	w1f7	Other lowland mixed deciduous woodland
		F57	w1f7	Other lowland mixed deciduous woodland
		F89	w1f7	Other lowland mixed deciduous woodland
		F90	w1f7	Other lowland mixed deciduous woodland
19	Tree Thinning / Woodland Management	F105	w1f	Lowland mixed deciduous woodland
		F22	w1f	Lowland mixed deciduous woodland
		F25	w2c	Other coniferous woodland
		F41	w1g	Other broadleaved woodland
		F43	w2c	Other coniferous woodland
		F59	w1f7	Other lowland mixed deciduous woodland
		F67	w1c	Lowland beech and yew woodland
		F70	w1f7	Other lowland mixed deciduous woodland
		F71	w1f7	Other lowland mixed deciduous woodland
		F73	w2c	Other coniferous woodland
		F74	w1f7	Other lowland mixed deciduous woodland
		F75	w1f7	Other lowland mixed deciduous woodland
		F77	w2c	Other coniferous woodland
		F78	w1h5	Other woodland - mixed - mainly broadleaved
		F79	w1c	Lowland beech and yew woodland
20	Tree Thinning / Woodland Management	F20	w1f	Lowland mixed deciduous woodland
		F21	w1f	Lowland mixed deciduous woodland
		F40	w1f	Lowland mixed deciduous woodland
		F53	w1f	Lowland mixed deciduous woodland
21	Tree Thinning / Woodland Management	F11	w1f	Lowland mixed deciduous woodland
		F3	w1f	Lowland mixed deciduous woodland
		F5	w1f	Lowland mixed deciduous woodland
		F6	w1f	Lowland mixed deciduous woodland
		F9	w1f	Lowland mixed deciduous woodland
22	Tree Thinning / Woodland Management	F106	w1g	Other broadleaved woodland
		F29	w1f7	Other lowland mixed deciduous woodland
		F62	w1f	Lowland mixed deciduous woodland

23	Tree Thinning / Woodland Management	F10	w1f	Lowland mixed deciduous woodland
		F15	w1f	Lowland mixed deciduous woodland
		F46	w1f	Lowland mixed deciduous woodland
		F49	w1f	Lowland mixed deciduous woodland
		F50	w1g	Other broadleaved woodland
		F8	w1f	Lowland mixed deciduous woodland
24	Tree Thinning / Woodland Management	F44	w1f7	Other lowland mixed deciduous woodland
25	Tree Thinning / Woodland Management	F72	w1f	Lowland mixed deciduous woodland
		F80	w1f7	Other lowland mixed deciduous woodland
		F83	w1f	Lowland mixed deciduous woodland
n/a	n/a	F107	u1c	Artificial unvegetated, unsealed surface
		F30	u1c	Artificial unvegetated, unsealed surface
		F82	u1a	Open mosaic habitats on previously developed land
		F99	u1c	Artificial unvegetated, unsealed surface

Ravensgate Common

Management Unit	Proposed Management	Habitat Map Code	UKHab v2 Classification	UKHab v2 Description	Notes
26	Grazing	F1	g2a	Lowland calcareous grassland	Downslope LCG - West
		F10	g3a	Lowland meadows	Strip along northern fence line under Beech
		F12	g3c6	Lolium-Cynosurus neutral grassland	semi-improved grassland SW arm plateau
		F19	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	Isolated patch within scrub at eastern end of slope
		F20	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	By northern fence line along track; up to foot of old Cotswold Way
		F21	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	Central slope; scrub over grassland
		F22	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	Central slope; scrub over grassland
		F23	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	Band of Birch and Gorse Scrub below Hollow Way path
		F25	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	Patch either side of lower track at west end
		F35	g2a	Lowland calcareous grassland	Not numbered on original plan. Part of F8?
		F4	g3	Neutral grassland	Lynch Lane Central
		F5	g2a	Lowland calcareous grassland	Upslope LCG - West
		F6	g3c6	Lolium-Cynosurus neutral grassland	Extensive strip of level-ground grassland through which the Cotswold Way passes
		F8	g2a5	Dry grasslands and scrub on chalk or limestone - lowland (H6210)	Far easterly section behind woodland. Currently well-established scrub but the aim is to retain / restore grassland with scrub mosaic
27	Scrub Management	F11	h3h	Mixed scrub	Gorse below Pat's seat (already removed)

		F13	h3h	Mixed scrub	Small patch of scrub above Hollow Way
		F14	h3d	Bramble scrub	Small patch of scrub at southern end of SW arm grassland
		F15	h3h	Mixed scrub	blackthorn scrub extending from hedge SW arm
		F16	h3h	Mixed scrub	blackthorn scrub extending from hedge SW arm
		F17	h3h	Mixed scrub	Strip of scrub immediately below Birch/Gorse community of F32?
		F18	h3h	Mixed scrub	Band of Hazel/Hawthorn/Blackthorn scrub below western end of Cotswold Way below Wistley Plantation
		F24a	h3h	Mixed scrub	Three separate patches of scrub within F1 at foot of Western slope
		F24b	h3h	Mixed scrub	Three separate patches of scrub within F1 at foot of Western slope
		F24c	h3h	Mixed scrub	Three separate patches within F1 at foot of Western slope
		F26	h3h	Mixed scrub	Small patch of scrub below Hollow Way track
		F27	h3h	Mixed scrub	Small patch of scrub below Hollow Way track
		F28	h3h	Mixed scrub	Strip of scrub below Vineyards western wall
		F29	h3h	Mixed scrub	Scrub along lower track at West end
		F30	h3h	Mixed scrub	Small patch at lower slope east end
		F31	h3h	Mixed scrub	Small patch on lower slope east end
		F32	h3h	Mixed scrub	Band of Birch and Gorse scrub/trees at top of eastern slope below Cotswold Way
		F33	h3h	Mixed scrub	Blackthorn hedge extension at West corner of Wistley Plantation
		F34	h3e	Gorse scrub	Patch of scrub within CG2 community at far east end below pylon
28	Tree Thinning / Woodland Management	F2	w1g	Other broadleaved woodland	Lynch Lane - Central area East
		F3	w1g	Other broadleaved woodland	Lynch Lane - Northern extent

		F7	w1g	Other broadleaved woodland	East slope central block
		F9	w1g	Other broadleaved woodland	Eastern hazel woodland block below pylon