

# LECKHAMPTON HILL AND CHARLTON KINGS COMMON MANAGEMENT PLAN



**Issue 2. April 2003**



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**Others:** David Long, all who attended the public consultation meeting in Leckhampton.

## FOREWORD

### **Foreword From Cheltenham Borough Council**

*“Cheltenham Borough Council originally had the foresight to secure the future of Leckhampton Hill for public benefit through its purchase. With the council's stewardship responsibilities in mind for this magnificent and unique example of our natural environment, I have great pleasure in contributing a foreword to the new Site Management Plan for Leckhampton Hill and Charlton Kings Common.*

*The plan has been commissioned by Cheltenham Borough Council as a strategic document for the future management of the hill. However the process of public participation and consultation has, in a way, almost been more important than the production of the plan itself. Drawing people together from an immensely diverse range of conservation, recreational and cultural interests to collaborate and work in partnership for a shared vision for the Hill has been both a challenging and richly rewarding experience.*

*The extent and strength of the partnership working has been exemplified through the active participation of the Friends of Leckhampton Hill and Charlton Kings Common (FOLK), English Nature, the Cotswolds AONB Partnership and Gloucestershire County Council's Archaeology Service, as well as a wide range of individuals and groups with specialist interests and local knowledge.*

*It is with this focus of interests upon one of the most complex and diverse sites of our natural environment within Gloucestershire that I commend the Site Management Plan to everyone with an interest in Leckhampton Hill and Charlton Kings Common”.*

**Councillor Lloyd Surgenor**

**Cabinet Deputy for Public and Environmental Protection**

**Cheltenham Borough Council**

*"This Site Management Plan has been heavily influenced by a long process of consultation, including a large public meeting, and the submission of statements from many of the groups and individuals with an interest in or specialist knowledge of the site. There have also been a series of Steering Group Meetings involving Cheltenham Borough Council, English Nature, the Cotwolds AONB, the Gloucestershire County Council Archaeology Service and FOLK.*

*FOLK's Executive Committee also met with the consultants who produced this Plan and discussed the contents of both an early draft and the final draft in great detail. The Executive Committee is made up of members with a wide spectrum of interests in Leckhampton Hill and Charlton Kings Common, from those who are primarily interested in the ecology to those who use the site primarily for recreation, and it represents a broad cross-section of users. Despite this and as a result of some of the changes made to the Site Management Plan during the consultation process, the Committee reached a large measure of consensus over the Plan. Following some revisions to the final draft, FOLK's Executive Committee now feels able to commend the whole Plan to FOLK members and other users of the site."*

***Julius Marstrand,***

***Chairman,***

***Friends of Leckhampton Hill and Charlton Kings Common (FOLK)***

**PART ONE.**  
**BACKGROUND**  
**INFORMATION**

# **GENERAL DESCRIPTION**

### **Location and Size (See Map 1)**

The site lies on the edge of the Cotswolds escarpment to the south of Cheltenham, partly within the Borough of Cheltenham, with the remainder in Tewkesbury District, in the county of Gloucestershire.

This plan is a rolling management plan which will guide management over five year periods to a cumulative total of 20 years.

The plan covers three areas of land, namely Leckhampton Hill, Charlton Kings Common and Daisybank Fields.

The Plan covers an area of approximately 67 hectares (165 acres)



**Leckhampton Hill**

### **Elevation and geology**

The site rises 195 metres (640 feet) from north to south with the lowest point at the northern end of Daisybank Fields at approximately 100 metres (328 feet) above sea level and the highest point, marked by the Ordnance Survey Datum Point on Leckhampton Hill, at 295.1 metres (968 feet) above sea level.



**Dead Man's Quarry, a nationally important geological exposure**

The Leckhampton quarries provide the thickest single cross-section through the Middle Jurassic, Inferior Oolite strata of the Cotswolds. Strata totalling sixty metres in thickness are exposed, including elements of the Lower, Middle and Upper Inferior Oolite.

### **Tenure (See Map 2)**

Cheltenham Borough Council owns the site in its entirety. The map also shows that Cheltenham Borough Council owns land to the south and east of Charlton Kings Common, although this is the subject of agricultural tenancies. Cheltenham Borough Council controls the management of the all the land within the plan boundary, apart from the strip from Brownstone Quarry to the edge of Charlton Kings Common, which is the subject of an agricultural tenancy with Mr Jenner of Hill Farm.

Although outside the scope of this plan, the suite of meadows to the south of Charlton Kings Common is of conservation and landscape value and warrants an appropriate conservation management regime.

### **Access (See Maps 3 and 4)**

The site is accessible to the public via a network of public rights of way (see Map 3), including footpaths, bridleways and a RUPP (Road Used as Public Path). Cheltenham Borough Council allows open access throughout the site, including Daisybank Fields.

The Cotswold Way National Trail crosses the site.

There are numerous public access points:

1. via public rights of way (see Map 4)
2. via undesignated paths

(See Appendix 3) which numbers the access points via public rights of way and undesignated paths)

There are also a number of unofficial 'private' access points to the woodland from residential properties at the bottom of Leckhampton Hill.

There are car parks at Salterley Quarry (also known as Wagon Quarry), Brownstone Quarry and off Daisybank Road.



**Salterley car park**

There are three vehicular access points (works accesses), located

- at the base of the standard gauge incline, off Daisybank Road
- off the tarmac road from Hill Farm
- adjacent to the track from Brownstone Quarry, accessed from the tarmac track from Hill Farm.

There are several other access points, suitable for vehicular use, along Daisybank Road.

### **Site Status/Legal Issues.**

#### **Definitive Map/ Highway Record /Rights of Way (See Map 3)**

There are numerous Public Rights of Way cross the site. Public paths are the responsibility of the County Highway Authority (Gloucestershire County Council). Their use and management is regulated by several Acts of Parliament, most notably the Countryside and Rights of Way Act 2000 (CROW Act).

It is not possible to follow the routes of several rights of way as they have become impassable through the development of scrub, although alternative 'desire' routes exist.

A former Turnpike Road (Sandy Lane) crosses the site, the legal status of which is indeterminate.

#### **Site of Special Scientific Interest (SSSI) (See Map 5)**

Much of the site, excluding Daisybank Fields, is designated as Leckhampton Hill and Charlton Kings Common Site of Special Scientific Interest (See Appendix 4). The SSSI was originally notified under the National Parks and Access to the Countryside Act 1949 in 1954. It was then re-notified in 1986 under the Wildlife and Countryside Act 1981, as amended, and finally extended under the 1981 Act on 18 December 1991. The SSSI covers an area of 63.8 hectares (157.7 acres) and is notified for its biological and geological interest.

This management plan excludes an area of 3.7 hectares (9.1 acres) of the SSSI on the adjacent golf course to the east, for which English Nature, the statutory agency in England responsible for the designation of SSSI, has made separate management arrangements. The golf course is particularly important for the nationally rare meadow clary (*Salvia pratensis*), being one of only 4 sites in Gloucestershire where it occurs.

### **Registered Common Land (See Map 6)**

The site includes three areas of Common Land, registered under the Commons Registration Act 1965.

#### **Registered Common CL171**

- “The tract of about 72 acres known as Leckhampton Hill in the parish of Leckhampton Gloucestershire... registered pursuant to application number 470 made 14<sup>th</sup> May 1968 by Harry Long and Mrs Muriel Alicia Long.”
- The area was modified on 27th June 1973 to exclude scheduled rights of way ALE 20, 21, 22, 23, 24, 26, 32, 33, 34, 35 and 37.
- There are no “rights of common” over the whole or any part of the land.
- Cheltenham Borough Council is the owner of “the whole of the land comprised in this register unit”.



**Registered Common CL172 - Charlton Kings Common**

#### **Registered Common CL172**

- “The area of about 76.5 acres of land known as Charlton Kings Common in the urban district of Charlton Kings, Gloucestershire”.

- The area was modified on 2nd July 1973 to exclude the scheduled rights of way CK 56, 57, 58, 60, and 65.
- There are no “rights of common” over the whole or any part of the land.
- The Ownership section of the Register does not show an owner for the land, but states “see note over”. This states “ the land comprised in this register unit has been registered under the Land Registry Acts 1925 to 1966”. Ownership cannot be registered under two acts (advice from DEFRA, Wildlife and Countryside Unit), therefore ownership details are not included in the Commons Register. Enquiries through the Estates Department at Cheltenham Borough Council identify Cheltenham Borough Council as the landowner.

### **Registered Common CL173**

- “The additional pieces of land at Leckhampton Hill containing 11.2 acres or thereabouts in the parish of Leckhampton, Gloucestershire.... Registered pursuant to application number 739 made 10 June 1968 by Leckhampton Parish Council Gloucestershire.”
- The area was modified on 27th June 1973 to exclude scheduled rights of way ALE 21, 27 and 36.
- There are no “rights of common” over the whole or any part of the land.
- Cheltenham Borough Council is the owner of “the whole of the land comprised in this register unit”.

### **Scheduled Ancient Monument / Sites and Monuments Record (See Map 7)**

The whole of the Leckhampton Hill and Charlton Kings Common area is of considerable interest as a historic landscape, containing a number of important constituents of the historic environment. These include round barrows; a hillfort; military remains; quarries; tramroads, railways and other associated industrial remains, including the limekilns.

Leckhampton Camp (hillfort) and the round barrow are considered to be of national importance and are Scheduled Ancient Monuments, county number 46, protected by statute under the 1979 Ancient Monuments and Archaeological Areas Act.

Many other historic environment elements are included on the Gloucestershire Sites and Monuments Record.



**Leckhampton Camp (hillfort site) at the summit of Leckhampton Hill**

#### **Area of Outstanding Natural Beauty (See Map 8)**

The whole of the Plan area lies within the Cotswolds Area of Outstanding Natural Beauty.

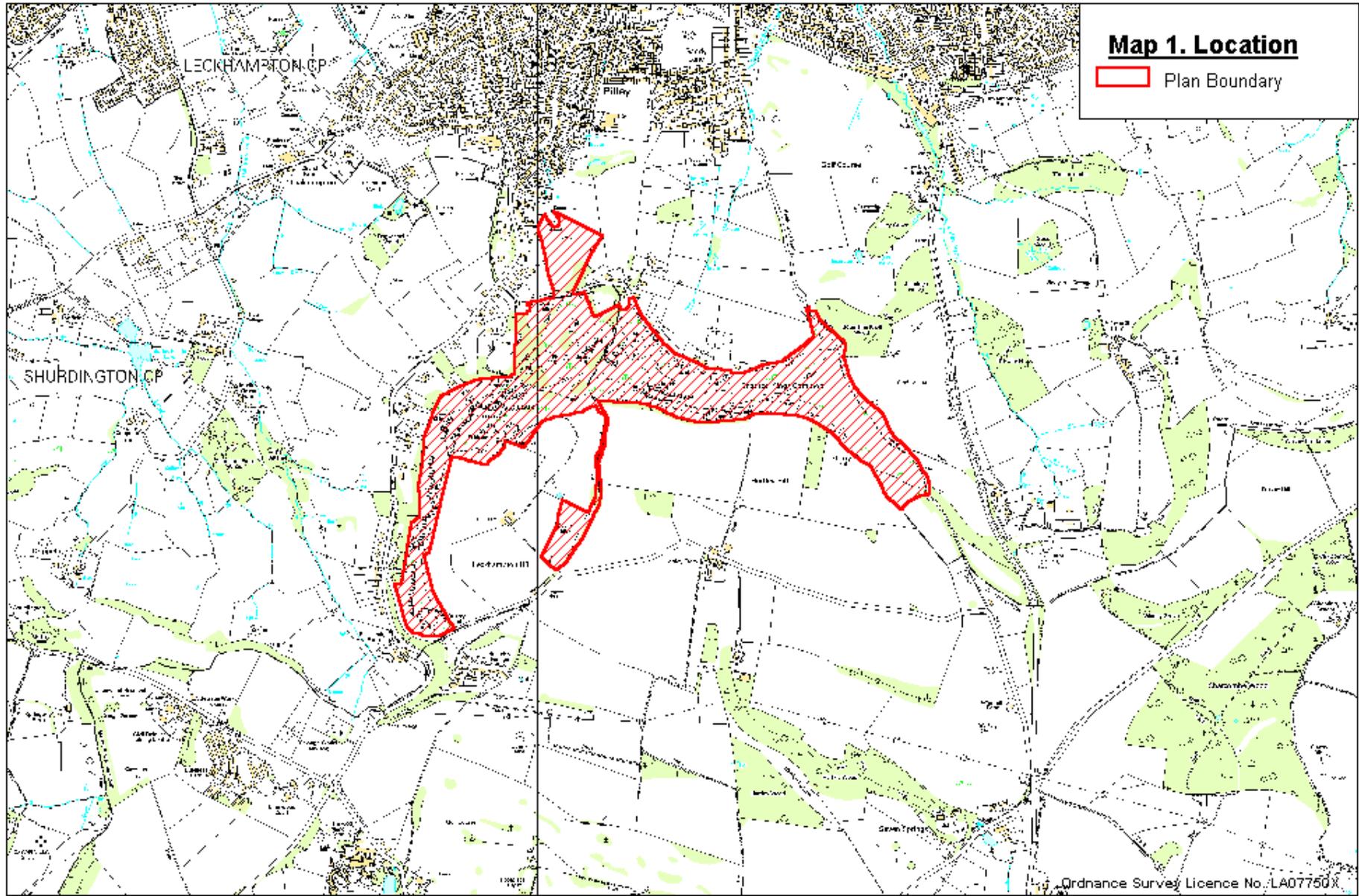
#### **Administrative Boundaries (See Map 9)**

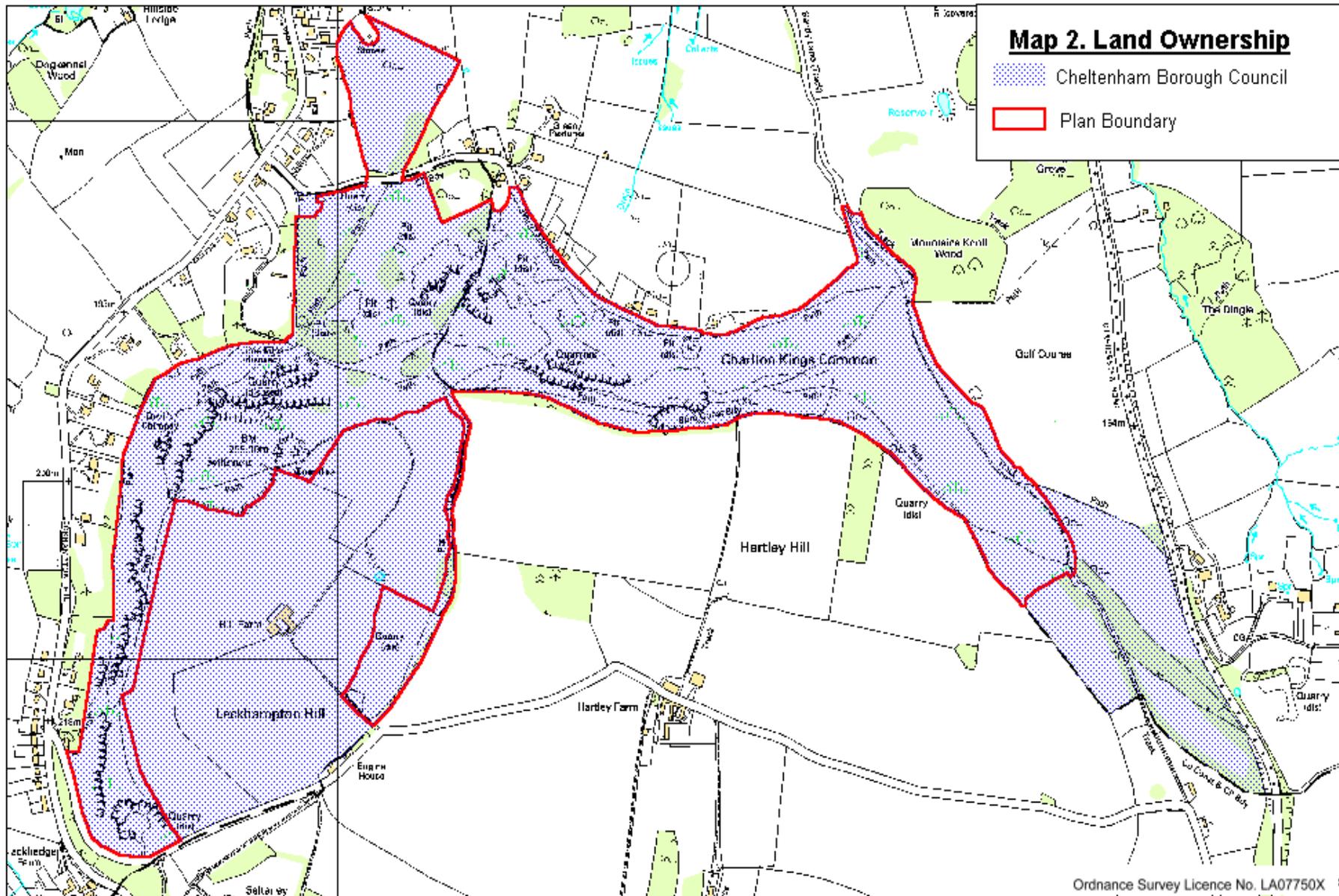
The land is partly within the Borough of Cheltenham, with the remainder of the site in Tewkesbury District, in the county of Gloucestershire. It also lies within the parishes of Charlton Kings and Shurdington and is adjacent to the parishes of Leckhampton and Coberley.

#### **Other Features**

The site comprises numerous features, some of which are identified earlier in this section. A comprehensive list of features, including their Ordnance Survey Grid References, is included in Appendix 5.

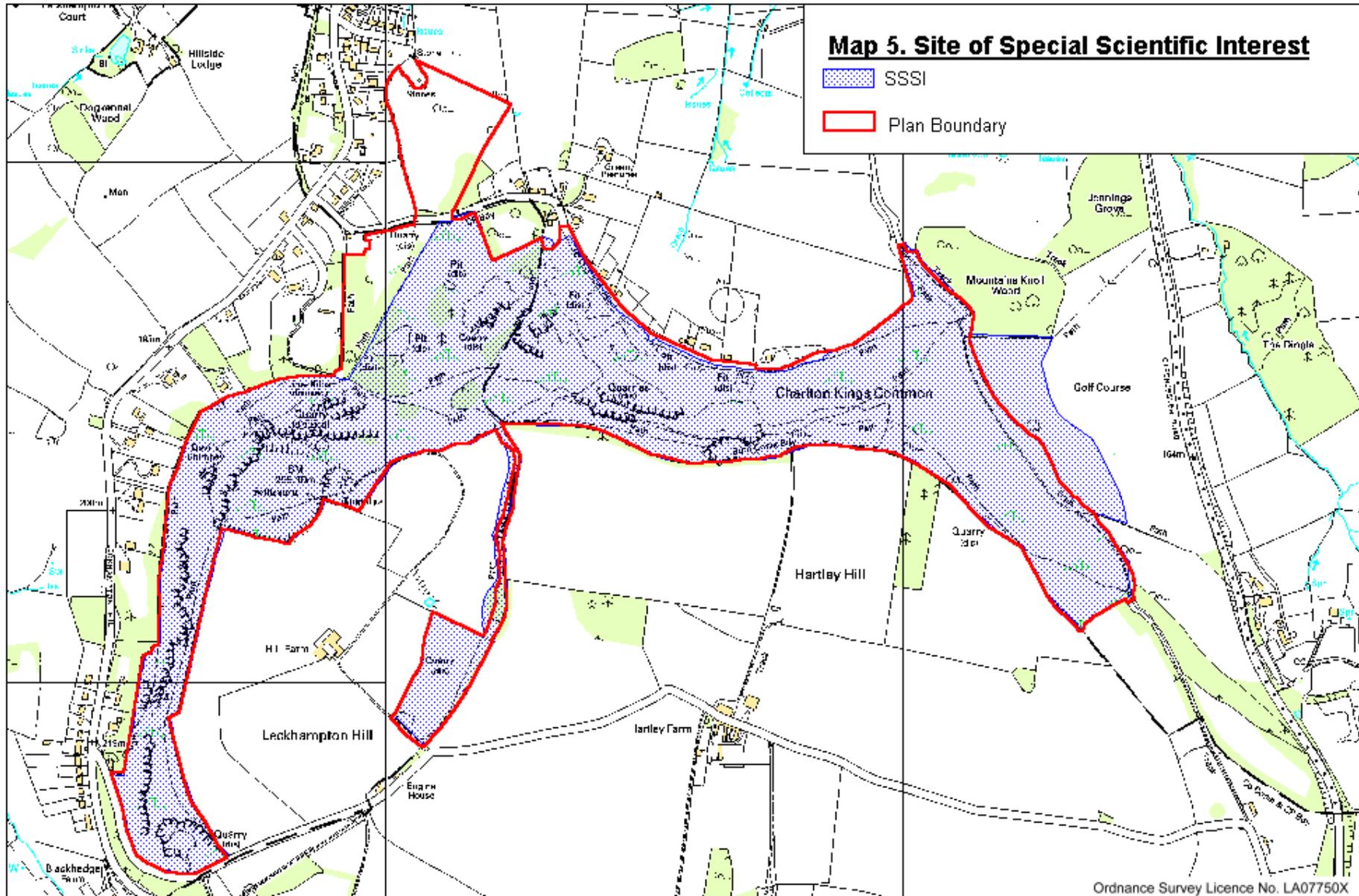
# MAPS

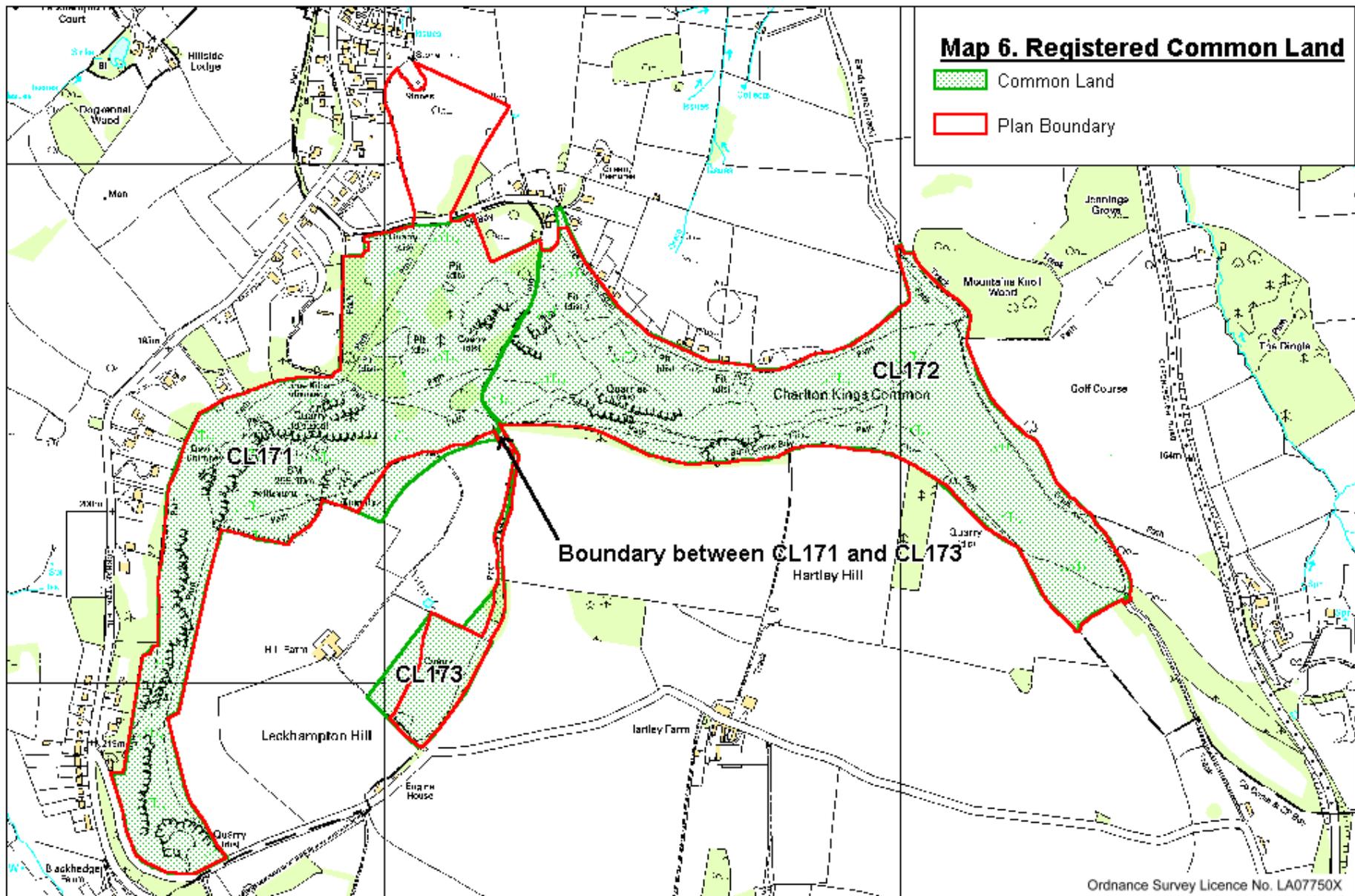


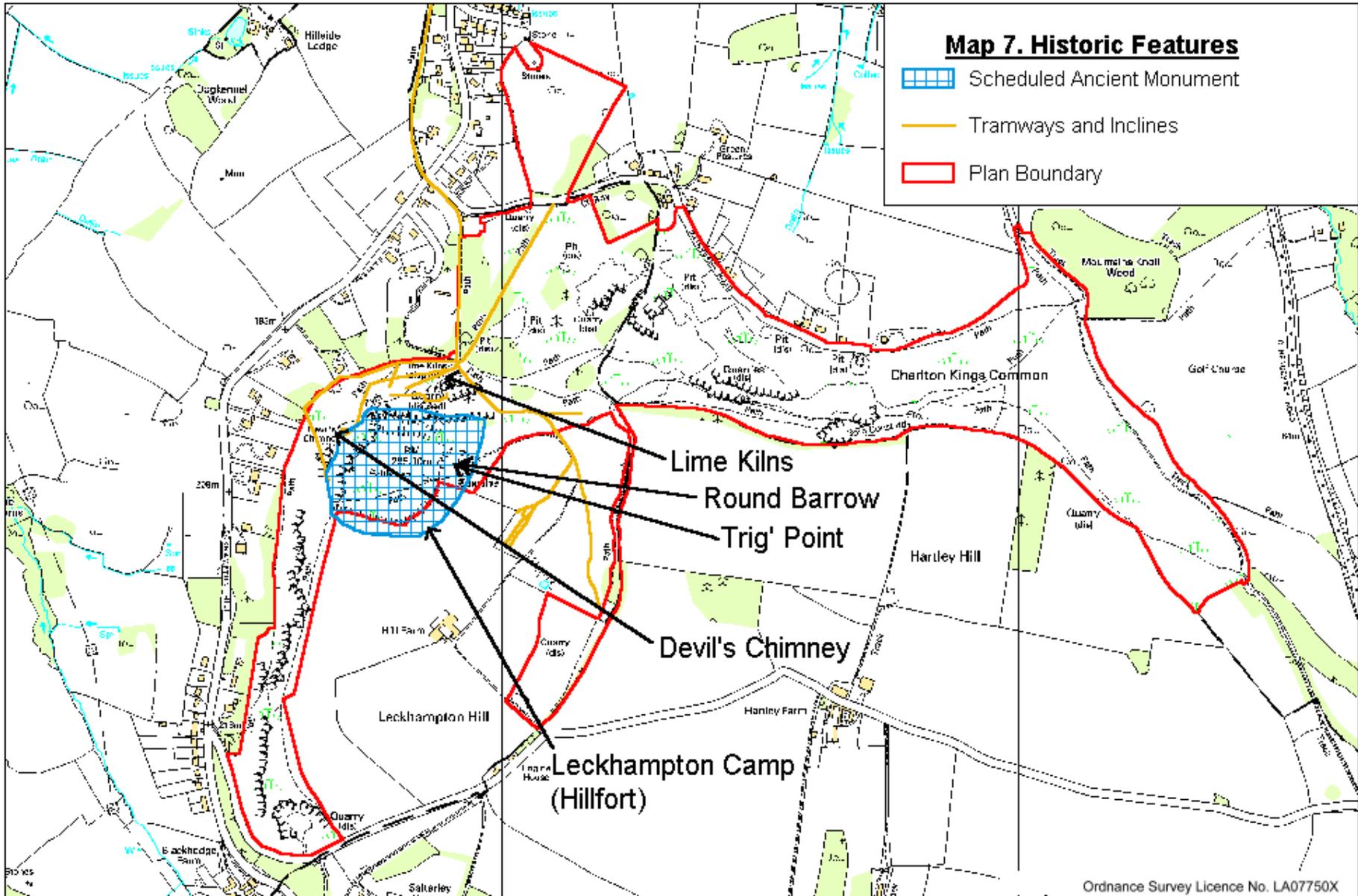


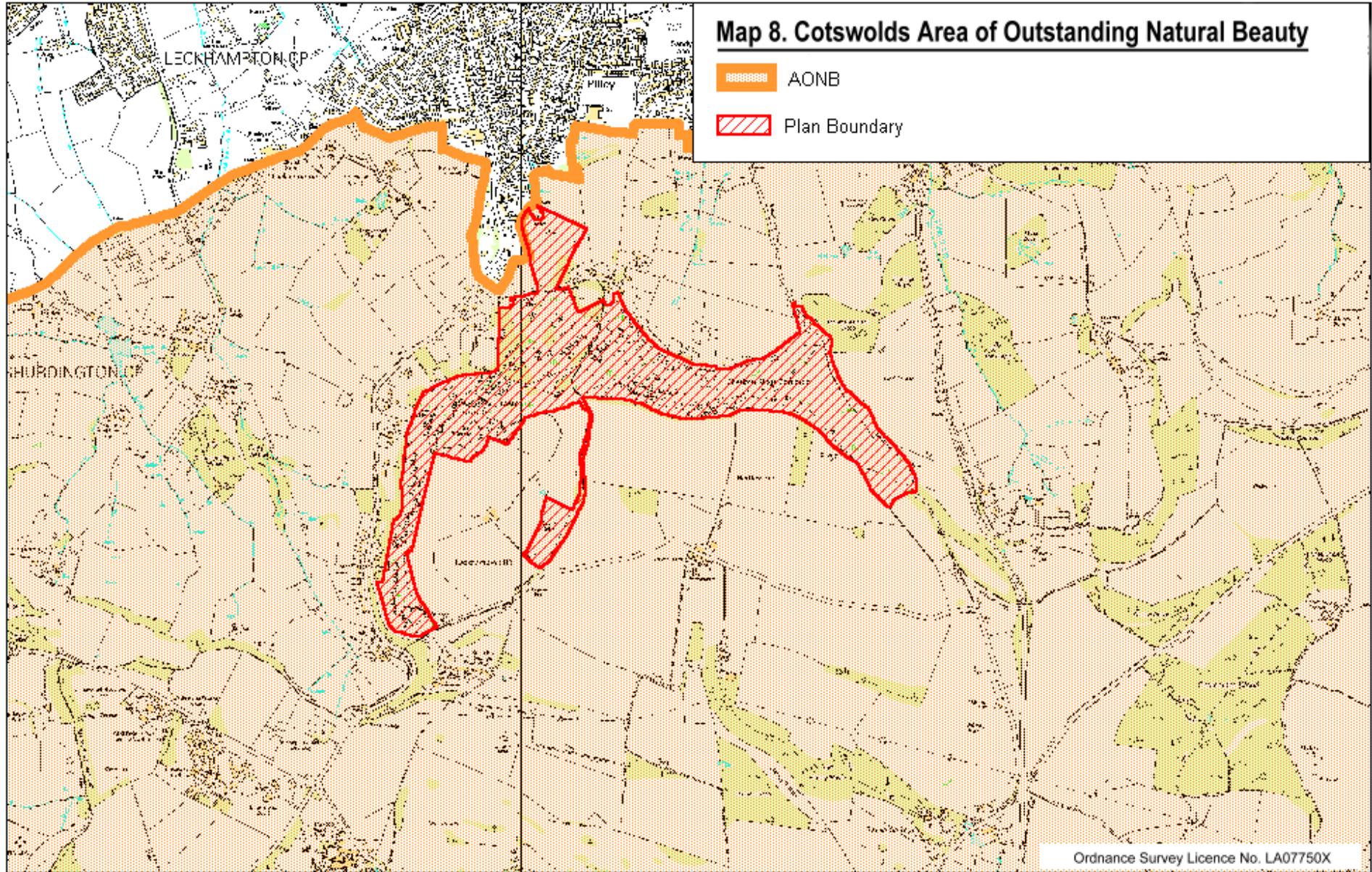


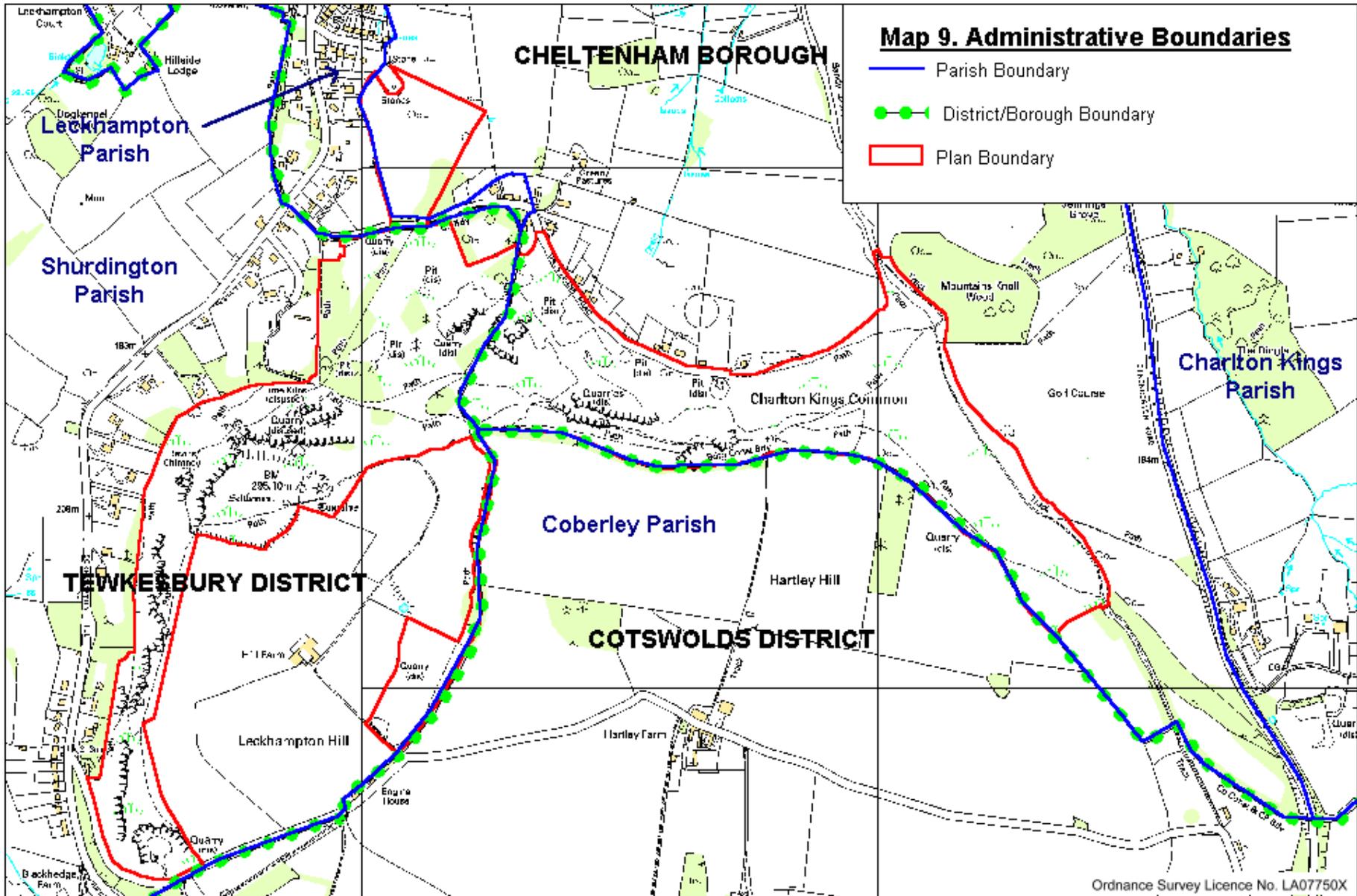












# **CURRENT MANAGEMENT AND MANAGEMENT ISSUES**

## **CURRENT MANAGEMENT AND MANAGEMENT ISSUES**

Management of the site is the responsibility of the owners, Cheltenham Borough Council, through the Parks and Recreation Service. There was formerly a Hill Keeper, with responsibility for land and visitor management. However, there are no longer any site-based staff. Site works are undertaken by the Cheltenham Borough Council's Park Ranger Service, contractors and volunteers.

The principal voluntary group is the Friends of Leckhampton Hill and Charlton Kings Common (FOLK), which was formed to represent local interest in the conservation, recreation, history and land management of the Site.

FOLK work in conjunction with Cheltenham Borough Council, the owners of the land, for the benefit of residents and visitors to Leckhampton Hill and Charlton Kings Common.

FOLK's key objectives are

- To promote the conservation and management of the ecology, geology and archaeology of the land.
- To promote the land's status as an SSSI, within the Cotswolds AONB, and compliance with relevant national and European legislation.
- To support the widest possible recreational use of the land consistent with the above objectives.
- To promote public awareness and education in the above objectives.
- To liaise and consult with the owners and trustees of the land and of adjacent land over matters of mutual interest.

FOLK has an executive committee which meets with representatives of Cheltenham Borough Council on a monthly basis.

A conservation management plan was prepared for the site for the period 1992-1996. This gave priority to the conservation and restoration of the limestone grassland. Some of the proposals in this plan have been implemented, but most have not. Consequently the limestone grassland has continued to deteriorate.

## **MANAGEMENT ISSUES**

A consultation meeting took place in March 2002 to enable local interest groups and individuals to voice the hopes and fears for the management plan and to open the debate on key issues affecting the future management of the Hill and Common. The findings are included in Appendix 6.

FOLK also invited interest groups to submit statements, outlining the nature of their interest in the Hill and detailing suggestions for management improvements. The interest group statements have been used to inform this management plan.

## **MANAGEMENT CONSTRAINTS**

### **Topographical Constraints**

The site is located on the edge of the steeply sloping Cotswolds escarpment with a relatively small narrow plateau at the top. The steep slopes make access for recreation difficult, particularly limiting opportunities for access for people with disabilities. The topography also constrains access for vehicles, such as tractors with cutting machinery, required to undertake management work.

### **Geological Constraints**

The soils overlying the oolitic limestone are very thin and suffer badly from erosion caused by walkers and other users (see photo). The erosion is exacerbated by rainwater, particularly on the slopes, where many of the tracks and inclines are deeply scarred by rainwater run-off.

Furthermore the limestone exposures are very fragile, the porous, fractured rock suffering from freeze-thaw action, which causes periodic and unpredictable rockfalls. Many of the paths that traverse the site pass close to the base of the quarries.



**Thin soils are eroded down to the bedrock**

### **Statutory Constraints**

Statutory designations - Site of Special Scientific Interest, Scheduled Ancient Monument, Area of Outstanding Natural Beauty, Rights of Way and Registered Common Land - impose a number of constraints on site management. Various consents are required for various works to be undertaken. These are explained fully in subsequent sections.

### **Public Perception**

The general perception of the public is that the site has always been wooded, although this is untrue (see photo). The majority of the woodland is of recent origin, having either been planted (principally with larch) or having naturally regenerated due a lack of grassland management.

As the majority of the site is Registered Common Land there is a general perception that there is a legal public right of open access. The Commons Register reveals that there are no common rights, therefore legal access is confined to the public rights of way network over the site. The network, the majority of which comprises public footpaths, principally confers rights on walkers, with limited access opportunities for horse-riders and cyclists. Despite this, Cheltenham Borough Council has not chosen to confine access to the legal routes.



**The Devil's Chimney. Note the lack of woodland on the slopes ( (courtesy of David Bick)**

The Countryside and Rights of Way Act 2000 requires that access will be opened up to Registered Common Land by 2005. There is a general perception that this will confer a right of access for all users, however, access rights will only extend to walkers.

**PART TWO.**

**APPRAISAL AND**

**EVALUATION OF KEY**

**FEATURES**

# **BIODIVERSITY APPRAISAL AND EVALUATION**

## **BIODIVERSITY APPRAISAL AND EVALUATION**

### **GENERAL**

Leckhampton Hill and Charlton Kings Common is of considerable biological importance in a local, regional and national context, principally due to the extent of the Jurassic limestone grassland and for the presence of nationally scarce species. As a result much of the site has been designated as a Site Of Special Scientific Interest. The area of the SSSI excludes the Daisybank Fields, which in themselves provide a valuable long grass and scrub habitat.

A number of documents have been used to inform this section.

#### Existing Information:

- Leckhampton Hill and Charlton Kings Common SSSI citation, English Nature
- Leckhampton Hill SSSI Site Management Plan 1992-1996, Gloucestershire Wildlife Management Ltd
- National Vegetation Survey, Phase One Survey Map - Leckhampton Hill and Charlton Kings Common SSSI, Cheltenham Borough Council, 2000
- Site Management Statement - Leckhampton Hill and Charlton Kings Common SSSI, English Nature Feb 1998, Feb 1999 and Dec 1999
- Biological information supplied by Gloucestershire Environmental Data Unit (GEDU)
- Gloucestershire Biodiversity Action Plan: Unimproved Limestone Grassland

#### New Information:

- Ornithological information supplied by Cheltenham Bird Club
- Information on butterflies supplied by Dr Guy Meredith
- Botanical Information supplied by Dr Guy Meredith
- Botanical Survey of Leckhampton Hill and Kings Charlton Common SSSI, Nortoft (June/July 2002)
- Interest Features Of Selected Quarries, Leckhampton Hill SSSI, English Nature (July 2002)

## BIOLOGICAL DESCRIPTION

### Leckhampton Hill and Charlton Kings Common SSSI

Leckhampton Hill and Charlton Kings Common Site of Special Scientific Interest was originally notified under the National Parks and Access to the Countryside Act 1949 in 1954. It was then re-notified in 1986 under the Wildlife and Countryside Act 1981, as amended, and finally extended under the 1981 Act on 18 December 1991. The SSSI covers an area of 63.8 hectares (157.7 acres) and is notified for its biological and geological interest.

The area covered by this management plan excludes 3.7 hectares (9.1 acres) of the SSSI on the adjacent golf course to the east, for which English Nature, the statutory agency in England responsible for the designation of SSSI, has made separate management arrangements. The golf course is particularly important for the nationally rare meadow clary (*Salvia pratensis*), being one of only 4 sites in Gloucestershire where it occurs.

The site is one of a series of unimproved Jurassic limestone grassland sites found along the Cotswolds Scarp, but differs from many of the grasslands in having a predominantly north-facing aspect. A number of limestone (calcareous) grassland communities have been identified:

- CG3a *Bromus erectus* grassland, typical sub-community
- CG3c *Bromus erectus* grassland, *Knautia arvensis* – *Bellis perennis* sub-community
- 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 sub-community
- CG5b *Bromus erectus* – *Brachypodium pinnatum* grassland, *Hieracium* spp. sub-community

The CG5 community is of particular importance with over 50%, around 1300 hectares, of the CG5 grassland that survives across the UK being found within the Cotswolds.



**Limestone grassland on Leckhampton Hill**

The following description is taken from the SSSI citation.

A range of habitats is present, including unimproved calcareous grassland, scrub, woodland, scree slopes and cliff faces. The most important and extensive feature is the grassland. This consists mainly 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 sward occurs with wild thyme (*Thymus praecox*), dwarf thistle (*Cirsium acaule*), yellow-wort (*Blackstonia perfoliata*) and autumn gentian (*Gentianella amarella*).

The grassland includes many plants that are scarce at local, county or national level. These include fly orchid (*Ophrys insectifera*), purple milk vetch (*Astragalus danicus*) and the nationally scarce musk orchid (*Herminium monorchis*).



**Wild thyme in Brownstone Quarry**

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 for nesting birds, such as meadow pipit (*Anthus pratensis*) and grasshopper warbler (*Locustella naevia*), and also shelter for invertebrates and small mammals.

An element of broadleaved and coniferous woodland occurs on scree slopes, including stands of mature beech (*Fagus sylvatica*), secondary ash woodland, Hazel (*Corylus avellana*) coppice and conifer plantations. This adds a woodland component to the flora present, with local species such as ivy broomrape (*Orobanche hederæ*), white helleborine (*Cephalanthera damasonium*) and greater butterfly orchid (*Platanthera chlorantha*).

The site supports a variety of insects with a total of 33 species of butterfly recorded, including small blue (*Cupido minimus*), chalkhill blue (*Lysandra coridon*) and the uncommon Duke of Burgundy (*Hamearis lucina*) One species of hoverfly that has been recorded, *Leptarthus brevirostris*, is nationally scarce.

The site supports thriving reptile populations including adder (*Vipera berus*), grass snake (*Natrix natrix*), slow worm (*Anguis fragilis*) and viviparous lizard (*Lacerta vivipara*). Two notable species of mollusc are present, a 'crysallis snail' *Abida secale* and heath snails (*Hellicella itala*) and a large population of Roman snail (*Helix pomatia*).



**Roman snails (*Helix pomatia*).**

### **SSSI Considerations**

The SSSI designation affords the site special protection under the Wildlife and Countryside Act 1981. Owners and occupiers of SSSIs require consent from English Nature prior to carrying out operations that are likely to cause damage. The most recent legislation relating to SSSI is the Countryside and Rights of Way (CROW) Act 2000. The Act gives new powers to protect SSSIs and puts a greater onus on owners and public bodies (such as local authorities) to manage sites and protect their special interest. The government has set a target of achieving 95% of SSSIs in favourable condition by 2010. With this in mind, the Act gives English Nature powers to secure positive management on sites to ensure that their value for wildlife and natural features is maintained. The Act also requires bodies, such as local authorities, to further the consideration and enhancement of the features of interest on SSSIs.

A Fact sheet on the CROW Act can be found in Appendix 7.

### **Land outside the Site of Special Scientific interest**

Although the majority of Leckhampton Hill is designated a SSSI, a small triangular section of the woodland between the Standard Gauge and Middle Inclines is excluded. The area comprises dense beech and mixed broadleaved woodland. No species of conservation importance have been identified.

Daisybank Fields, situated to the north and across Daisybank Road from the main body of the site, is not part of the SSSI. The field does not consist of limestone grassland and may in fact be a recently abandoned arable field. There is evidence of ridge and furrow, indicating much earlier cultivation. It does not contain species of particular conservation value. In parts it comprises neutral grassland (MG1). The dense grassland structure means that it is of importance to many invertebrates, such as orthoptera and spiders, as well as being an important feeding and nesting area for birds.

### **EVALUATION OF BIOLOGICAL INTEREST**

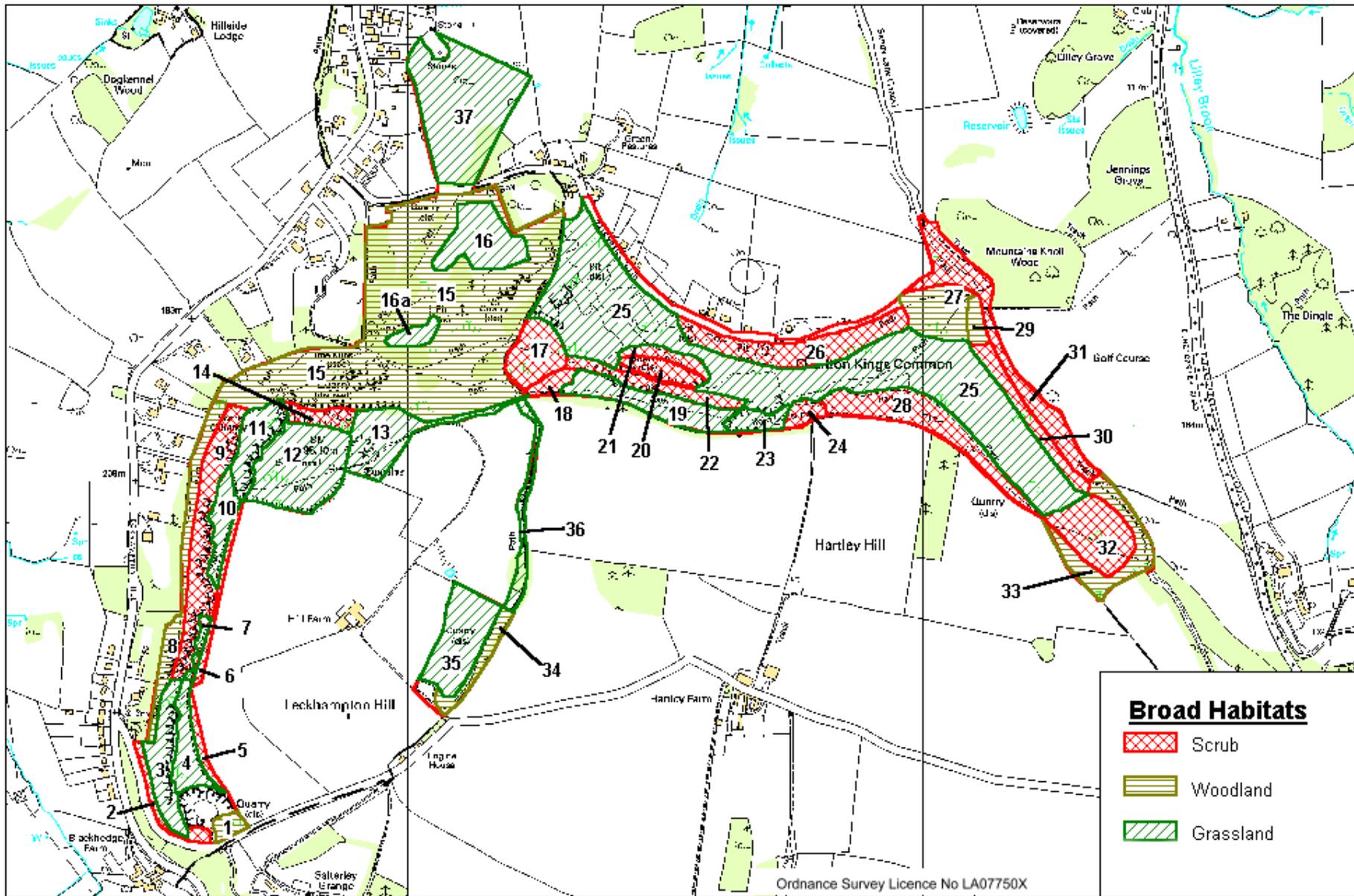
The site comprises three principal habitats:

- Grassland
- Scrub
- Woodland

and two subsidiary habitats:

- Scree
- Rock Faces

The principal broad habitats have been mapped and numbered for ease of reference (see Map of Broad Habitat Types below). English Nature has also commissioned additional survey work on the quarries.



### **Limestone Grassland**

(Broad Habitat Units 3, 7, 10, 11, 12, 13, 16, 19, 23, 25, 35, 36)

English Nature identifies the limestone grassland as the “most important and extensive feature” of the site. The units defined are the best examples of limestone grassland that remain. Unimproved limestone grassland (lowland calcareous grassland) is identified as a priority habitat in the UK, Regional and Gloucestershire Biodiversity Action Plans and targets have been set for its conservation and restoration. Management of the grassland and scrub on the site will make a significant contribution to meeting biodiversity action plan targets. The Gloucestershire unimproved limestone grassland action plan can be found in Appendix 8.



**Area 3. Limestone Grassland**

The biological information acquired during the preparation of the management plan is broadly consistent with the existing (pre 2002) biological information. However, there has been further deterioration of the limestone grassland and encroachment of scrub.

The site management plan (1992-1996), prepared by Gloucestershire Wildlife Management Ltd, identified the limestone grassland as the main habitat requiring attention and defined a number of actions to ensure its conservation. Some of the

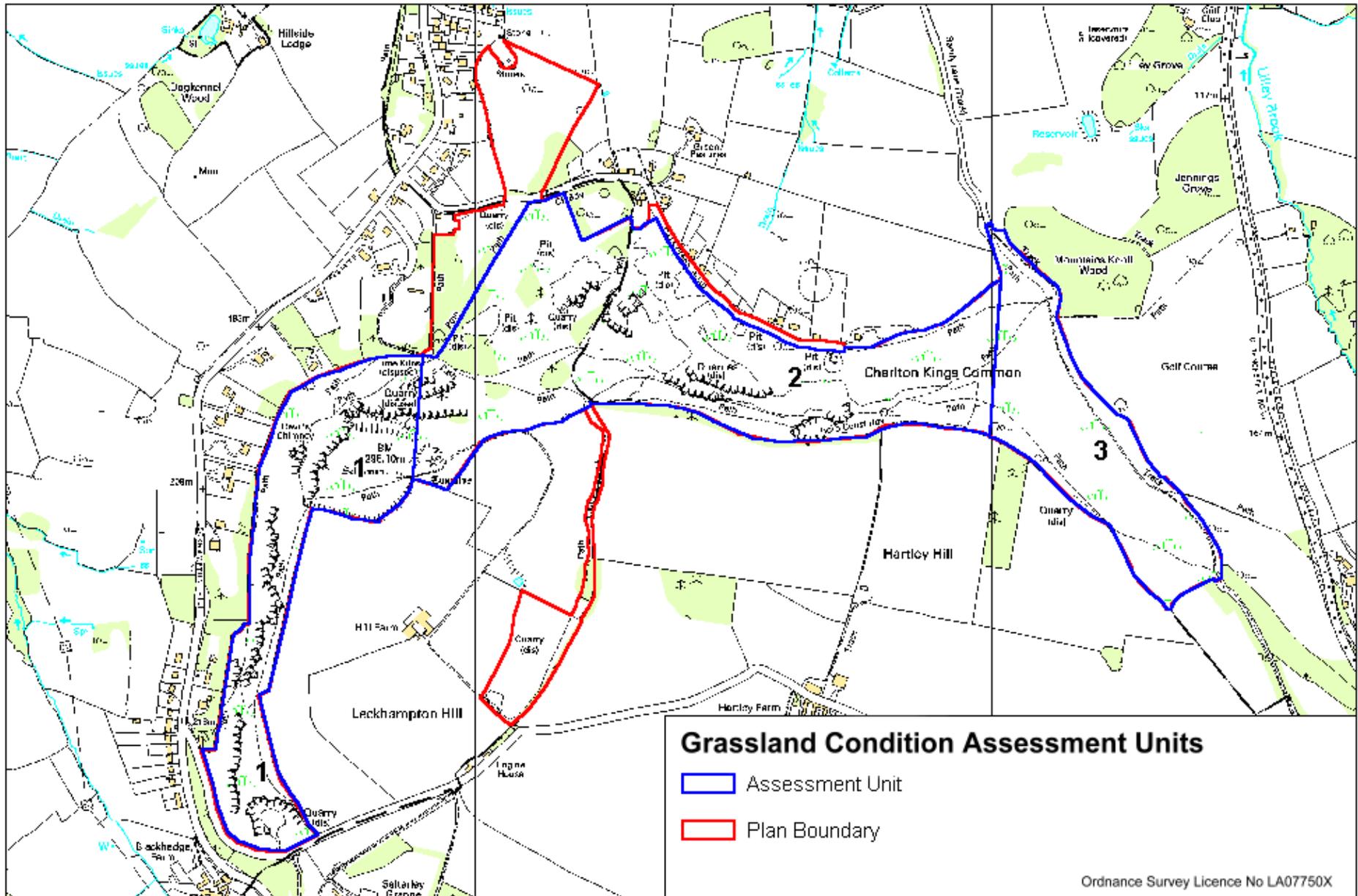
recommendations were carried out recently, however the majority were not. This has resulted in further deterioration of the grassland, a situation backed up by English Nature's condition assessment of the limestone grassland undertaken in 1999, in which English Nature sub-divided the SSSI in to 3 Grassland Assessment Units (See following map), each of which was assessed against a number of criteria.

The findings were as follows:

<b>Assessment Unit</b>	<b>Condition</b>
<b>1</b>	Grassland on flat top of unit largely favourable Community on slopes is affected by increasing scrub and tree growth
<b>2</b>	Unfavourable condition (no change) .As a whole fails on all primary criteria. Scrub and tree invasion and loss of diversity on slopes is the main problem
<b>3</b>	Unfavourable no change

The botanical survey, undertaken by Nortoft in June/July 2002 (see Appendix 9), and the Interest Features of Selected Quarries Survey (English Nature July 2002, see Appendix 10) exemplifies the decline.

If the further decline of the nationally important limestone grassland is to be halted and its condition improved, then management of the limestone grassland must be a priority.



**Scrub** (Broad Habitat Units 2, 5, 6, 9, 14, 17, 18, 20, 21, 22, 24, 26, 28, 30, 31, 32)

These units represent those areas that are dominated by woody species, such as gorse and hawthorn scrub, and the generation of ash woodland. The density of scrub across the units is variable, with some areas being relatively lightly scrubbed, whilst others have a high density and are developing in to woodland. Some of the units support a limestone grassland herb layer, in others the grassland has been shaded out. Scrub is an integral part of the limestone grassland communities, having developed due to lack of management (grazing or cutting). It represents a stage in the natural succession to woodland. If the extent and density of the scrub areas is allowed to increase it will result in further deterioration and loss of the unimproved limestone grassland.



**Area 28. Heavy gorse scrub on Charlton Kings Common**

Although the limestone grassland has been identified as the most important habitat, the scrub communities are also an important element of the site's biodiversity. They provide a habitat for a variety of invertebrates (notably Duke of Burgundy fritillary, which requires a matrix of open grassland and scrub) and birds (notably tree pipit and grasshopper warbler). Management prescription for each scrub block needs to take account of the requirements of those species that have colonised the site as a result of scrub development.

Lightly scrubbed areas, which retain a limestone grassland herb layer, offer the greatest opportunity for grassland restoration. However, the opportunity for the successful restoration of limestone grassland in areas with heavy scrub may have already been lost.

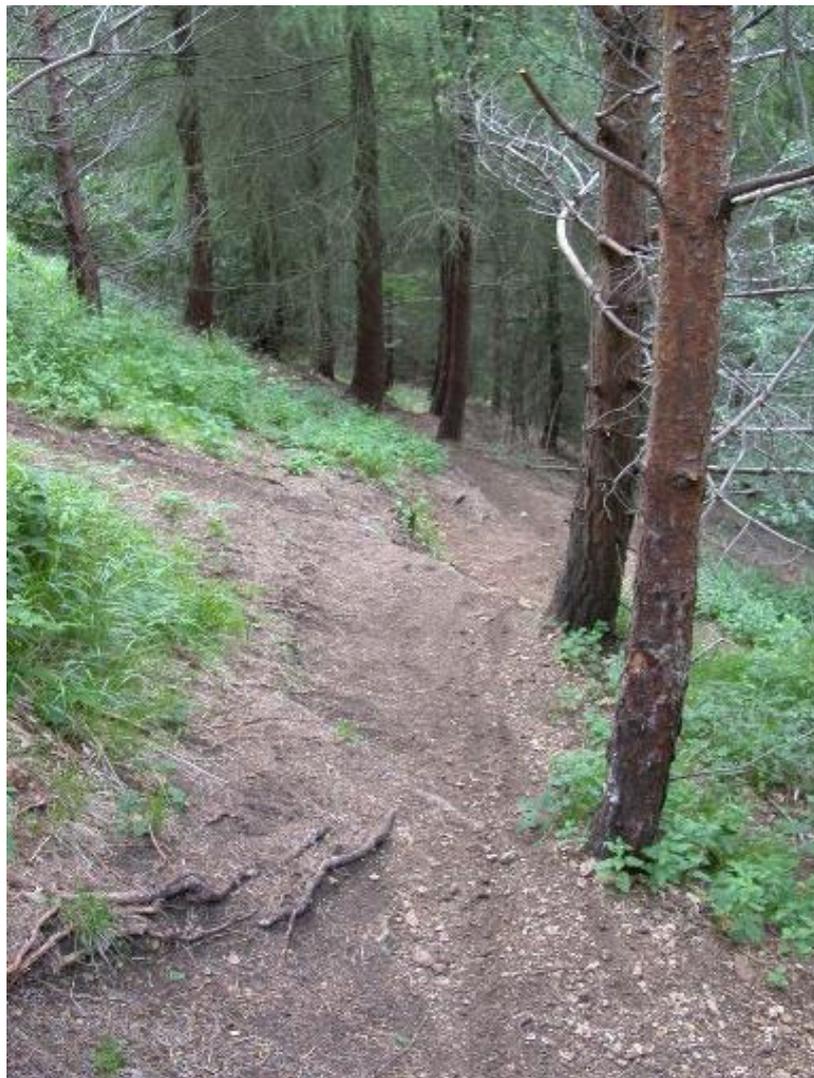


**Ash regeneration**

**Woodland** (Broad Habitat Units 8, 15, 27, 29, 33, 34)

The site comprises broadleaved woodland, coniferous plantations and areas of heavy scrub in the latter stages of succession to woodland. The Ancient Woodland Inventory for Gloucestershire indicates that there are no areas of ancient woodland associated with the plan area. However, the Inventory only records areas over 2 hectares, therefore small pockets of ancient woodland and ancient hedgerows are not included. The point at which scrub becomes woodland is ill defined. Some areas identified in this plan as woodland, especially areas 29 and 33, could equally be defined as heavy scrub. They have been defined as woodland because of the variety of trees and shrubs and presence of a significant number of shade loving and ancient woodland indicator species, such as dog's mercury (*Mercurialis perennis*), white helleborine (*Cephalanthera damasonium*) and broad-leaved helleborine (*Epipactis helleborine*).

The woodland is the least important habitat in the context of the site. The established broadleaved and coniferous blocks are a robust habitat, which will change very little over time and should not be regarded as a priority for management. However, the areas in transition and those areas that have been periodically cleared to create glades are more fragile and require periodic management to maintain their interest. These include parts of areas 27, 29, 30 and 31.



**Larch plantations are a major component of the woodland**



**Beech woodland in area 15**



**A glade in Area 31**

### Other grassland (Broad Habitat Unit 37)

Lying outside the area of the SSSI, Daisybank Fields is an area of neutral grassland, and is probably an abandoned area of arable land. It contains no plant species of conservation value.



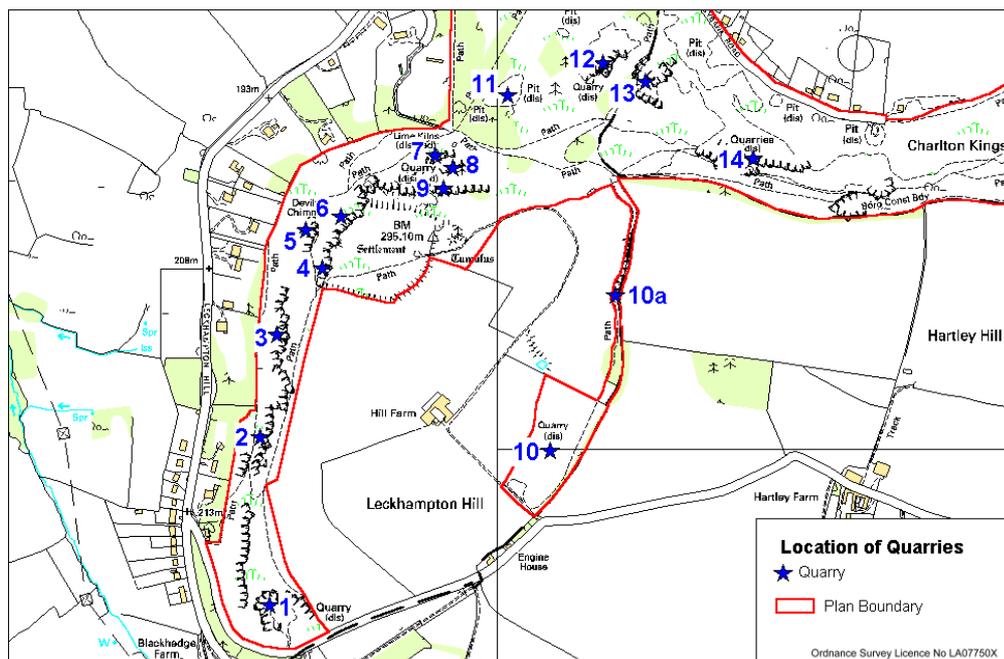
Daisybank Fields

The conservation value of this area is the mosaic of long grass and scrub, which provides a habitat for invertebrates and an important nesting and feeding area for birds, including warblers and birds of prey (kestrels are breeding on site).

As it lies outside the SSSI, it warrants a lesser a management priority than the limestone grassland, although the long grass/scrub mosaic is worthy of retention.

### Biological Value of the Quarries

In July 2002 English Nature commissioned a survey of 'Interest Features of Selected Quarries'. A summary of the findings is tabulated below (the numbers in brackets against each quarry indicate their location on the Map below). The survey report can be found in Appendix 10.



<b>INTEREST FEATURES OF SELECTED QUARRIES, LECKHAMPTON HILL SSSI</b>	
<b>DESCRIPTION</b>	<b>IMPORTANCE</b>
<b>Charlton Kings (13)</b>	
<p>North and east facing slopes. Fairly open quarry, with extensive loose scree and small quarry faces.</p> <p>Scrub mainly scattered, but small area of dense scrub on north-western facing (top) edge and mature scrub on lower slopes to base of quarry.</p> <p>Estimated scrub: grassland ratio 25 (30): 75 (70). However, boulders / scree cover 40 – 50% of slopes.</p>	<b>High.</b>
<b>Brownstone - main(10)</b>	
<p>Wide, flat-bottomed quarry with shallow soils, large bare areas and low worked faces. Range of aspects.</p>	<b>High.</b>
<b>Brownstone – narrow band (10a)</b>	
<p>West-facing, low quarry face (c. 2-3 m). Scattered scrub</p> <p>Estimated scrub: grassland ratio – 15: 85.</p>	<p><b>Low for face.</b></p> <p><b>High for top.</b></p>
<b>Salterley (Wagon) (1)</b>	
<p>South-facing, high vertical face c 15 – 20m. Sides also facing east and west. Car park at base of quarry.</p> <p>East and west sides scrub-flanked. Mature scrub on east side</p> <p>Excluding car-park area (and face), estimated scrub: grassland ratio – 85:15.</p>	<p><b>Quarry face, high.</b></p> <p><b>Lower slopes – low, except for hazel scrub -medium.</b></p> <p><b>Top – high.</b></p>
<b>Firsbrake &amp; Ferncliff (2 &amp; 3)</b>	
<p>These two quarries form a north-south continuum and therefore were surveyed together.</p> <p>Height of west-facing quarry cliff averages approx 10m. Very steep slopes to quarry face, difficult to ascertain where quarry area ends but lower slopes densely wooded, grading upwards into both dense and scattered scrub to base of face.</p> <p>Estimated scrub: grassland ratio – 80(85): 20(15) - but difficult to estimate on ground.</p>	<p><b>CG5b – high.</b></p> <p><b>Quarry face if bats – high.</b></p> <p><b>Rest – medium to low.</b></p>

<b>INTEREST FEATURES OF SELECTED QUARRIES, LECKHAMPTON HILL SSSI</b>	
<b>DESCRIPTION</b>	<b>IMPORTANCE</b>
<b>Devil's Chimney (5)</b>	
Mainly west-facing with steep slopes below quarry face, and upon which the Devil's Chimney stands. Much scree. Dense young woodland, scrub at bottom of slope. Scattered scrub elsewhere including just below the chimney. Estimated scrub: grassland ratio – 20:80 (latter includes rock – scree).	<b>High.</b>
<b>Charlton Kings Crag (14)</b>	
Steep, north-facing slope, with low exposed quarry face to top, below which is an area of scree, the latter dominated by young <i>Fraxinus</i> with very little else. This is an open, exposed site with a good cover of grassland although much of it rather rank.	<b>Low for 75% of site. However an area containing devil's-bit scabious areas, (c. 25%) graded medium to high.</b>
<b>Limekilns – Middle &amp; Upper (8 &amp; 9)</b>	
North-facing, high quarry faces with extensive scree. Continuous scrub and (young) woodland on slopes and just below face. Small areas of calcareous grassland on flats. Estimated scrub/woodland: grassland ratio 80:20.	<b>Medium.</b>
<b>Daisybank (12)</b>	
Various aspects, but mainly north-north-west facing. Open basin, but almost entirely surrounded by continuous scrub, with scattered young scrub elsewhere. Estimated scrub: grassland ratio 50: 50 (depending on where quarry boundary lies!).	<b>Medium.</b>

<b>INTEREST FEATURES OF SELECTED QUARRIES, LECKHAMPTON HILL SSSI</b>	
<b>DESCRIPTION</b>	<b>IMPORTANCE</b>
<b>Trye's /Dead Man's (4 &amp; 6)</b>	
Small, relatively undulating quarry much used by pedestrians and mountain bikers, criss-crossed by paths. Various aspects, but mainly west-facing. Floor grazed very short by rabbits and consists of a very species-rich fine fescue turf with both mesophytic and calcicolous elements. Scrub / young woodland around northern and western sides and small face. Estimated scrub: grassland ratio – 40:60.	<b>Medium.</b>
<b>Incline Quarry (11)</b>	
Predominantly west and north facing quarry. Vegetation comprising mainly young woodland and scrub and with a sparse ground flora. East side and quarry floor more open, with inclines and broad paths used by mountain bikers. Estimated scrub: grassland: bare ground ratio – 60 :15 :25 (latter is shallow rendzina type soil and calcareous rubble).	<b>Low.</b>

There is some overlap between this survey and the botanical survey commissioned during the preparation of this management plan, as it includes the habitat in the vicinity of the quarry as well as the quarry itself. It provides a valuable baseline assessment to inform future geoconservation work and confirms the priorities for action developed earlier in this section.

### **Species Information**

In addition to the habitat assessment, several local specialists provided information on the locations of key species. Although the Gloucestershire Environmental Data Unit was also consulted, it was unable to supply information in sufficient detail.

The survey work undertaken during the preparation of the plan provides a snapshot, rather than an exhaustive list, of the 1000s of species of plant, bird, mammal, reptile and invertebrates that are resident or visitors to the site.

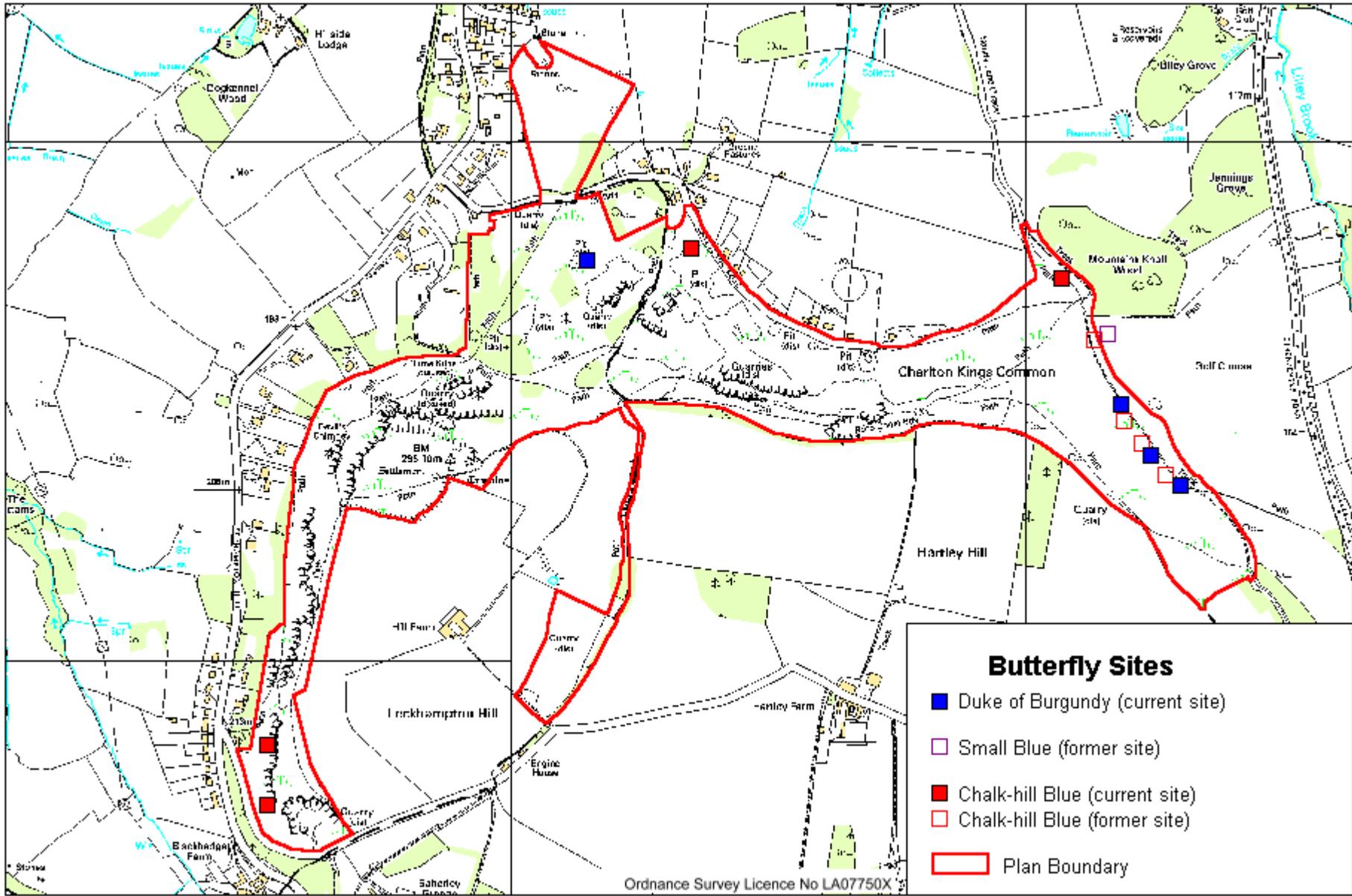
The following maps show the location of key species, for which it has been possible to define specific sites. The habitat requirements of these species need to be fully considered. It has been possible to identify specific locations where a number of

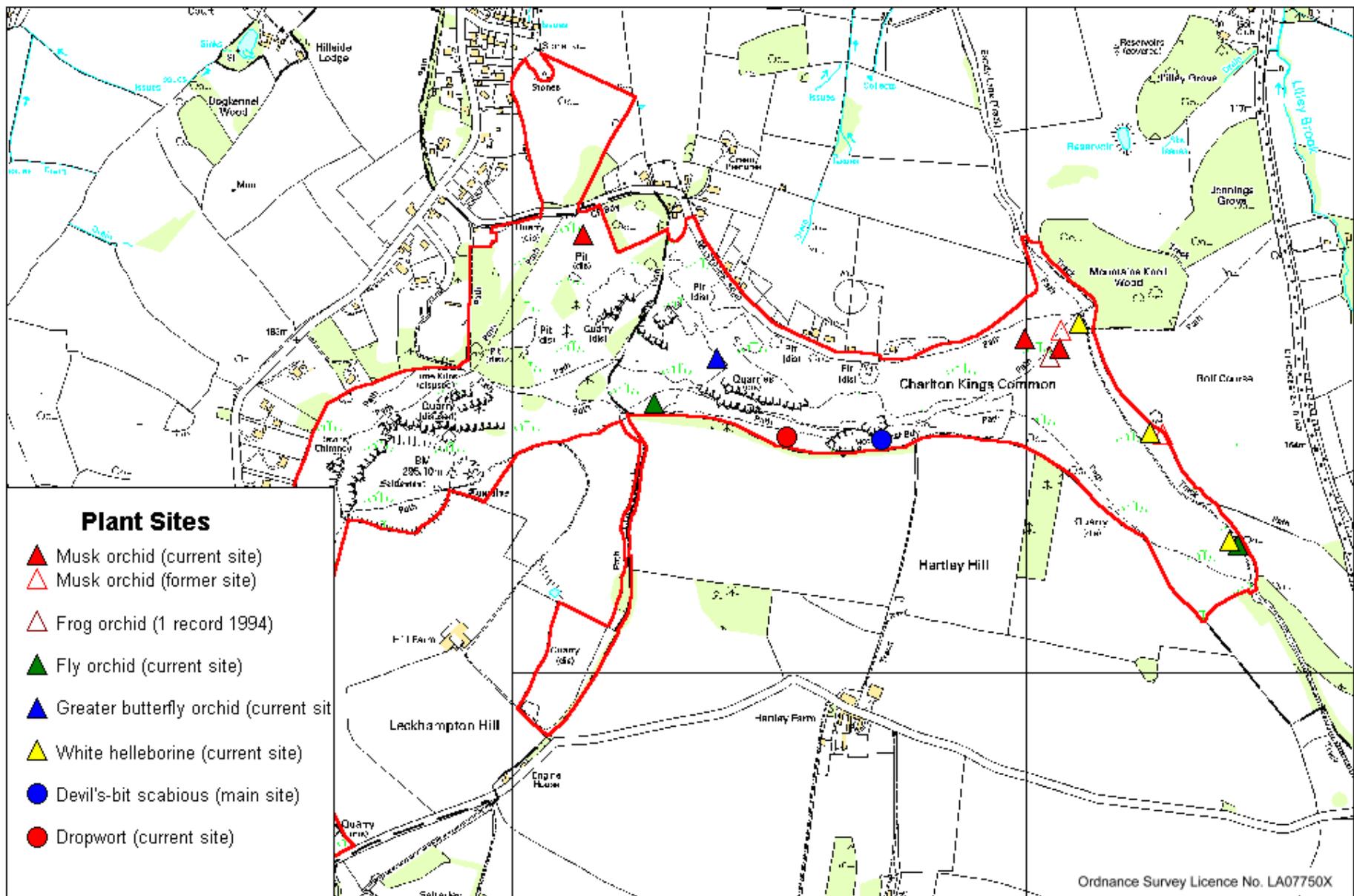
bird species have been recorded, although only tree pipit and grasshopper warbler are mapped. Of those species recorded 11 are identified in the Gloucestershire Biodiversity Action Plan. Sky lark, tree pipit, song thrush, grasshopper warbler, bullfinch, spotted flycatcher and linnet find extensive areas of suitable breeding habitat on site and the remainder, including lesser-spotted woodpecker and tree sparrow, have been recorded as occasional non breeding visitors, therefore specific locations are not mapped.

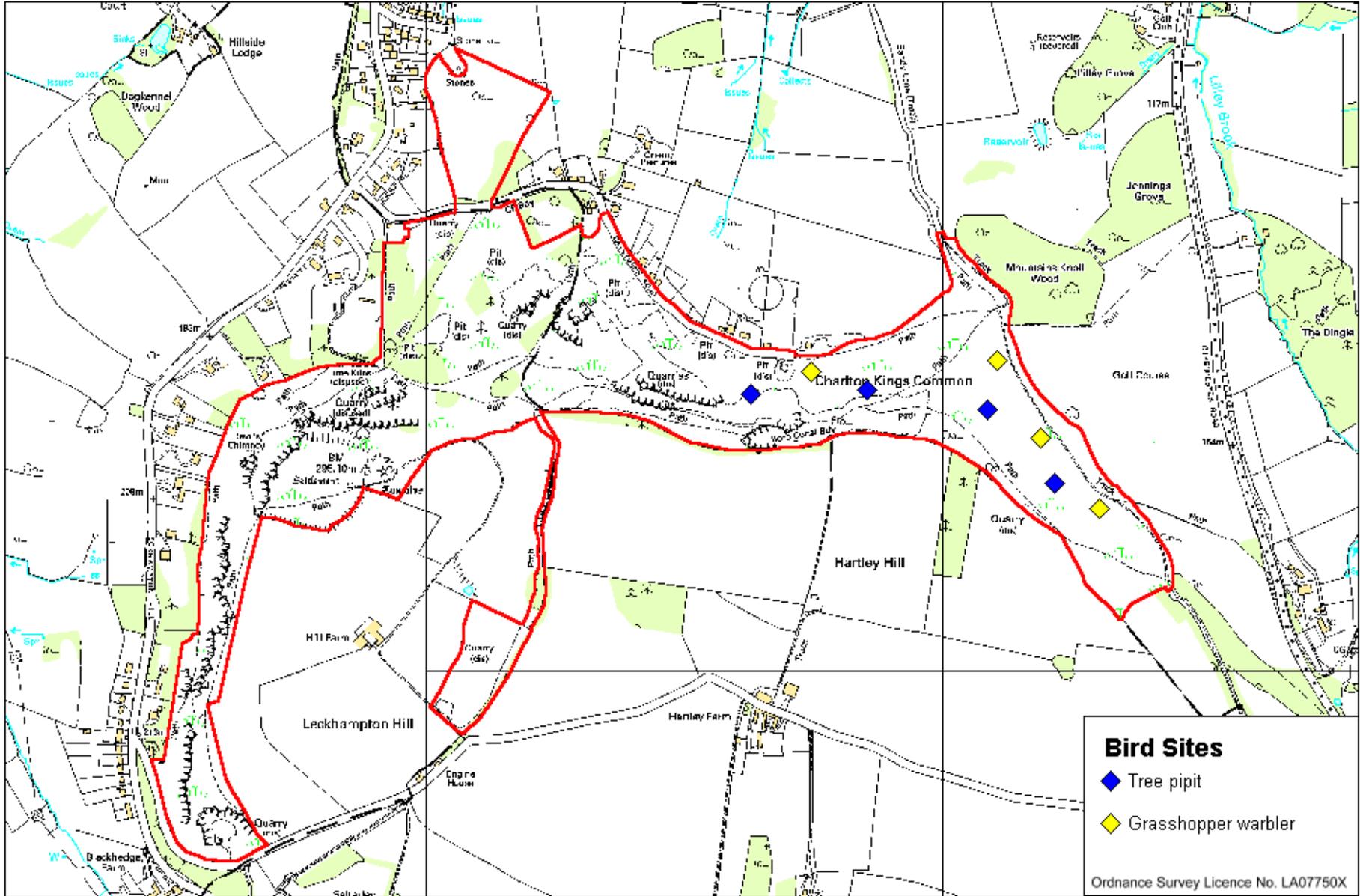
Future management must be informed by regular monitoring of species populations.



**Pyramidal Orchid**







## SUMMARY OF KEY BIODIVERSITY PRIORITIES

The table below outlines the main priorities for conservation and enhancement of the biological interest of the site.

<b>Priority One</b>	Conservation and enhancement of areas of unimproved limestone grassland currently in favourable condition.
	Restoration of unimproved limestone grassland suffering from coarse grass and light scrub encroachment.
	Maintenance of suitable habitat for shade loving plant species.
	Retention of selected areas of scrub for the benefit of invertebrates and birds, including Duke of Burgundy fritillary, tree pipit and grasshopper warbler.
	Ongoing species monitoring to inform future management.
<b>Priority Two</b>	Restoration of limestone grassland in areas suffering heavy scrub encroachment.
	Retention of scrub - grassland mosaic in Daisybank Fields.
<b>Priority Three</b>	Management in the main woodland block (Unit 15), unless the work is associated with another management priority eg conservation of historic environment features.

# **GEODIVERSITY APPRAISAL AND EVALUATION**

## **GEODIVERSITY APPRAISAL AND EVALUATION**

**The following section is a slightly amended version of the ‘the Geodiversity Conservation Aspects of Leckhampton Hill SSSI’ prepared by Geode Consulting for English Nature in November 2001. It should be noted that the information, particularly on the condition of the quarries, was correct at that date, but subsequent management, particularly on Priority One sites has changed the situation.**

### **GEOLOGICAL CONSERVATION STATUS**

The site contains many natural and quarried rock outcrops as well as gravel pits and landslip features on the top and slopes of the Cotswolds scarp. The whole SSSI is of mixed geological and biological interest due to the importance of the scientific value of its features. The following map shows the area of significant geological interest (from the Geological Conservation Review) that lies within the SSSI. The other parts of the SSSI are of less geological importance, in that they replicate features better observed in the area of significant interest.

The key value of the geology of the SSSI is the potentially complete exposure of the whole of the Lower Inferior Oolite formation in one outcrop area - a feature almost unique in the Cotswolds. The rock exposures are all classified as ED1 (nationally important disused quarry /Exposure site) in the Earth Science Classification Code and the landslip and gravel sites as IS2 (Regionally important, static geomorphological /integrity site).

The Geological Conservation Review notification states that this is the “single thickest section through the Inferior Oolite of the Cotswolds.” The site also has been extensively published on and is as a result of significant research interest, as well as “an extensive educational facility of the first order”. This nationally important, 60 plus metre thick section contains elements of Lower, Middle and Upper Inferior Oolite and is invaluable for students of palaeontology, carbonate sedimentology and ancient environments. The hill exhibits a sequence of rock strata from the top in the shallow quarries in the south-east corner down over the scarp edge in successive layers towards the base of the slope.

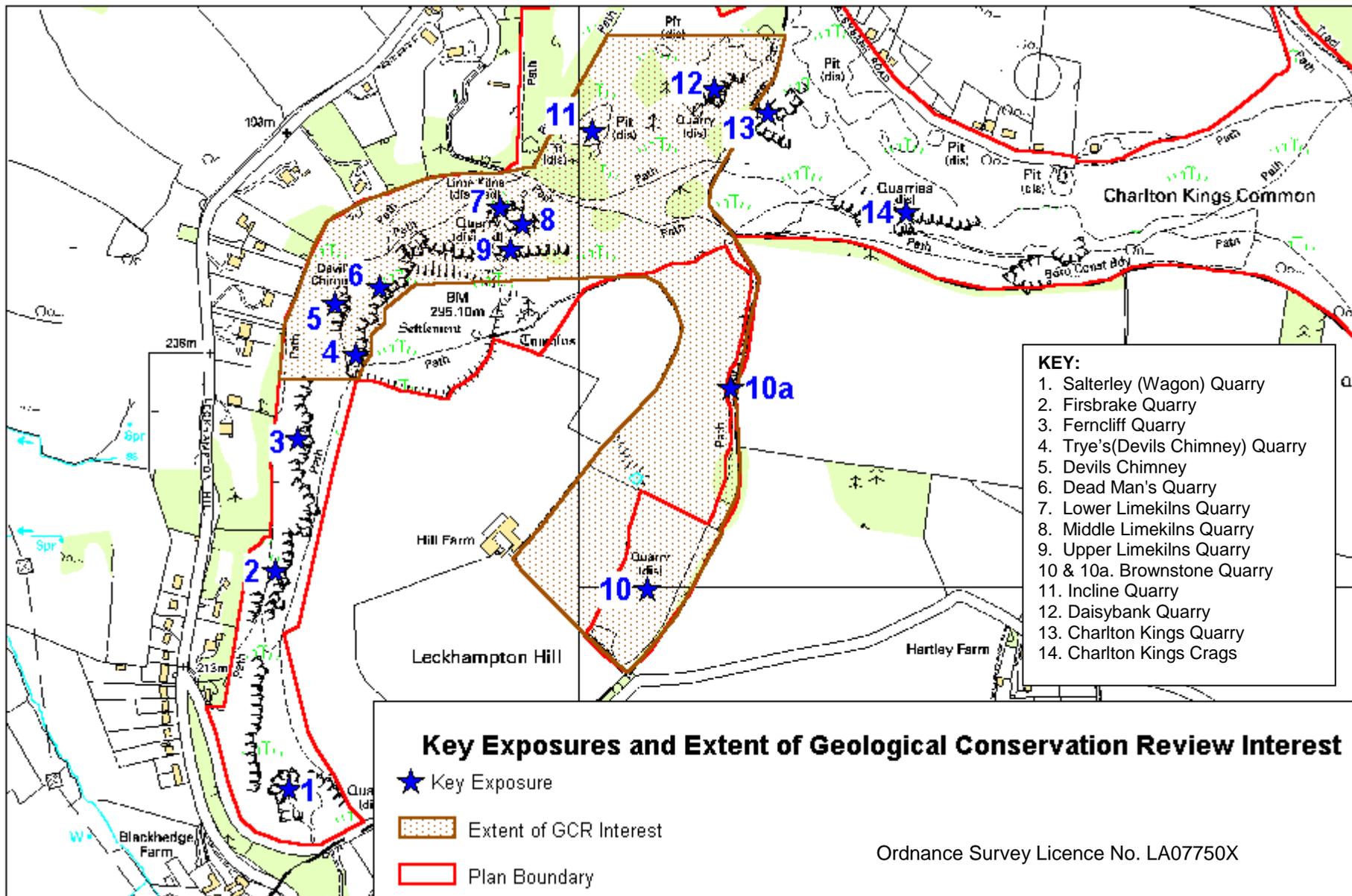
## **GEOLOGICAL DESCRIPTION**

The site exposes a 60 metre section of Jurassic sediments. These rocks were laid down in a shallow marine environment some 165 - 170 million years ago. These rocks exposed in the quarries on and under Leckhampton Hill, are a thick series of limestones that extend along the Cotswold scarp. They are important for the fossils they contain and the evidence of past conditions and processes they represent.

Geological descriptions of the site have varied in detail over the years from the earliest descriptions in 1850 through to the British Geological Survey in 2000. The basic divisions have not changed, but nomenclature and the details have varied from author to author. It is partly these variations that have added to the interest of the SSSI. The variations in terminology along with the logs of recent authors are shown in Appendix 11, which also includes a more detailed description given by Richardson in 1933.

The exposures cover over 1 mile of broken outcrop and are predominantly within the Cleeve Cloud member (Lower Freestone). The main cliffs rise from 720 ft at the top Whitby Mudstone (Upper Lias) to 955 ft at the top of the cliffs within the Notgrove Member. The cliffs are formed originally by the erosional retreat of the Jurassic outcrop in the Severn Vale during the Tertiary and Quaternary and have been modified by quarrying practices since Roman times. The largest impact came between 1800 and 1927 when massive stone extraction works took place. The Devils Chimney (a "quarryman's Folly") is a result of quarry working.

The details of the lithologies and stratigraphy are in Appendix 11. These give a description of the rock types and thicknesses. The strata are almost horizontal with a slight dip towards the south -east. There is also a normal fault at SO 9475,1845, downthrowing to the northeast by about 10 m. The base of the Inferior Oolite (the limestones) is at the same height as the old limekilns at SO 9490,1855. From here all the upper slopes comprise the section seen in Figs 1 and 2. The outcrops on the top of the hill along the cliff edge are of Gryphite Grit and the Upper Inferior Oolite sections are only seen further back in Brownstone. The lower slopes in the eastern part of the site exhibit several landslip features along with Quaternary slump deposits (20,000 years to 5 million years ago). These are seen in the quarries marked on the following map. There are also examples of eroded joints and cambering in these quarries, which represent more recent movements in the hillside.



It should be noted that many authors have in the past used *ad hoc* names for quarries or the wrong ones. The maps in this report have used the original names from the records for the individual quarries/outcrops or ones that are proposed for all future reference based on best knowledge and advice.

The details of key outcrops now follow (see map on previous page):

1. Salterley Quarry, also known as Wagon Quarry (SO 9460, 1770). This old quarry at the northern end of the SSSI provides a good exposure through the Cleeve Cloud Member and a small section of Crickley Member at the base. The section shows about 18 m of cross bedded oolites with a small fault at its northern end.

2 and 3. Firsbrake and Ferncliff Quarries (SO 9453,1773 to SO 9460,1828). These old quarried sections are all set within the Cleeve Cloud member, but do show the “False Bedded” horizon referred to by Richardson.

4. Trye’s Quarry (SO 9467,1833). This is one of the older quarries used with the first tramroads. It has old scars in the Scotsquar Member (Upper Freestone) and may have an old adit.

5. The Devil’s Chimney.

6. Dead Man’s Quarry (SO 9470,1840). This is the most recent of the old quarries and exposes a sequence from the mid Cleeve Cloud (Lower Freestone) Member through to the Lower Trigonía Grit Member. It has been regularly logged and published on and is one of the most important sections on the SSSI.

7. Lower Limekilns, Quarry (SO 9491,1855). This is another very important exposure exhibiting the lowest 12 metres of the Inferior Oolite (Birdlip Limestone). Whilst it is a “Type section” it is also the only place where these beds are exposed (incompletely) in the SSSI. The limestones range through oncolites, sandy limestones and oolites.

8. and 9. Middle and Upper Limekilns Quarries (SO 9477, 1848 to SO 9500,1863) These scars represent the visible faces on the hillside. They cover some 150 ft (45m) of section through the oolites of the Cleeve Cloud Member (Lower Freestone) Scotsquar, Lower Trigonía Grit and Gryphite Grit members. They allow for an

excellent view of these massive rock units in only a few broken exposures. An important east-west fault, throwing some 13m northwards, is exposed at the western end.

10 and 10a. Brownstone Quarry (SO 9510,1820). This is the remains of a once extensive shallow quarry on top of the hill. The exposures around the edges show the Gryphite Grit, Notgrove Freestone, and Upper Trigonía Grit Members. There is good access to these beds. The limestones are fossiliferous and weathered.

11. Incline Quarry (SO 9505,1866). This is one of the gravel/scree pits dug to build the inclines from the tramroads on the Hill. These pits still show the slumped nature of the Pleistocene head.

12. Daisybank Quarry (SO 9524,1875). This is one of the larger stone/scree pits dug to build the inclines on the hill. There may have also been building stone extraction. These pits still show the cambered/faulted nature of the scarp edge with the Cleeve Cloud member faulted down the cliff against the Lias.

13. Charlton Kings Quarry (SO 9525,1870). This quarry exhibits a section of Cleeve Cloud Member and Scotsquar Oolites (Lower Freestone to Upper Freestone). These beds, however, exhibit differing faces and thickness from those to the west, and allow for detailed log comparisons to be made. The outcrops also show excellent cambering structures and rotational fault movement.

14. Charlton Kings Crags (SO 9545,1853 to SO 9560,1850). These are a series of low bluffs and crags along the top of the hill that expose the upper Buckmani Grit and Gryphite Grit.

### **Key Features**

The key Geological Conservation Review interest on the site is shown in the almost complete section of Inferior Oolite sediments seen in the three Limekilns Quarries, Brownstone Quarry and Dead Man's Quarry. These are of prime importance both for their research value and as an educational facility.

The hillside is now host to a number of important Type Sections of national importance for Jurassic stratigraphy (as defined by the British Geological Society). They are:

Lower Limekilns Quarry	for Birdlip Limestone Formation including Leckhampton Member, Cleeve Cloud Member
Upper Limekilns Quarry	for Lower Trigonía Grit Member, Gryphite Grit Member
Dead Man's Quarry	for Birdlip Limestone Formation including Cleeve Cloud Member

Other sections, defined as "Reference Sections" are as follows:

Lower Limekilns Quarry	for Crickley Member
Upper Limekilns Quarry	for Cleeve Cloud Member, Aston Limestone Formation,
Dead Man's Quarry	for Cleeve Cloud Member, Scotsquar Member

Subject area features of key geological interest are as follows:

- **Petrology/Stratigraphy**

The interest here is inherent in the rock types exposed in the quarries mentioned above. The variation in the limestones, their content and thickness, is of immense scientific importance.

- **Palaeontological**

The palaeontological interest of these sections is also important. The age dating of the various members and formations relies on the presence of key ammonites, some of which have been found in these quarries. They are also a rich source for brachiopods and bivalves, which proliferate in the Leckhampton Limestone, Crickley Limestone and Scotsquar Limestone as well as the upper members exposed in Brownstone Quarry. In these sites the resultant scree is rich in fossils, lists of which are found in the many reference texts in the bibliography details.

Important collecting sections occur in the Scotsquar Member in Dead Man's Quarry, the Salperton Limestone Formation in Brownstone Quarry, the Leckhampton Limestone Member in Lower Limekilns Quarry and Lower Trigonía Grit /Gryphite Grit Members in Upper Limekilns Quarry.

- **Structural**

The only significant fault is a normal fault towards the northern end of Dead Man's Quarry, at SO 9475,1845, downthrowing to the northeast by about 10 m. This is aligned along the important late Jurassic fault trend.

There are also sites with static landslips and gravel and head deposits from the late and mid Quaternary. These are still poorly studied in this area, but remain as potentially important sites for future research. There are numerous examples of eroded joints and cambering in the main quarries. These represent more recent movements during the late ice age and Holocene. These features are seen exposed in Daisybank Quarry and Charlton Kings Quarry. The landforms to the south of these two quarries indicate that they are the result of other compound landslips.

- **Research/ Educational**

The key sections are Lower Limekilns, Upper Limekilns and Dead Man's Quarries. The presence of key reference/type sections and their palaeontological importance is of significant interest.

### **Local/Regional Context**

The outcrops and features listed above are considered to be the best complete site in the Cotswolds for rocks of this age. This is probably the most visited Cotswold site for local and national geologists on account of its importance and access. The bibliography indicates the volume of research that has been conducted on it. The site is currently the subject of several areas of research. The local RIGS group "Gloucestershire Geoconservation" considers it to be one of the four most important sites in the county, for its regional value. The result of the structure and petrology of the site has been a long industrial use of the site for its building stone resource. This practical demonstration of economic geology is one of the best in the Cotswolds.

**OPERATIONAL FEATURE (ENSIS LEVEL 1): DISUSED QUARRIES, PITS AND CUTTINGS (ED)**

SITE/GCR UNIT..... Leckhampton Hill SSSI.....

Attribute	Target	Measure	Yes/ no	Site visit comments
Exposure of features of interest	The features of interest are exposed or can practically be re-exposed if required	Visual/ fixed-point photography	No	The Top Lias and basal Leckhampton limestone are totally obscured by quarrying works/scree. There is no adequate exposure of the Crickley Member (Pea Grit) or of the lower part of the Cleeve Cloud member. Exposure of the lower Gryphite Grit is also severely limited and hazardous.
Vegetation	Vegetation is not obscuring or damaging the features of interest	Visual/ fixed-point photography	No	Tree/scrub growth on the Leckhampton Limestone, Crickley Member (Pea Grit) and Gryphite member is damaging the outcrops. Tree growth is impairing the visual aspects of the Cleeve Cloud member
Tipping or landfill	There is no unconsented tipping or landfill obscuring or damaging the features of interest	Visual/ fixed-point photography	Yes	No problems
Tree planting	There is no unconsented tree planting obscuring or damaging the features of interest	Visual/ fixed-point photography	Yes	No problems
Engineering works	There are no engineering works, including inappropriate restoration works, obscuring or damaging the features of interest	Visual/ fixed-point photography	Yes	No problems
Planning condition observation	Planning conditions and restoration agreements or plans are being observed on site	Visual/ fixed-point photography	Yes	No problems
Geological specimen collecting	There is no irresponsible or inappropriate specimen collecting	Visual/ fixed-point photography	Yes	The key horizons of the Oolite Marl and Pea grit are solid Exposure sites and with proper restoration there should not be a problem with this issue

Visit by..... Mark Campbell..... Date..... 25/10/01..... Overall Assessment..... Unfavourable - declining

## EVALUATION

### Evaluation of key Geodiversity features

Type of Feature	Feature	Evaluation			
		National	Regional	local	minor
<b>Outcrop/Quarry</b>	Wagon Quarry		✓		
	Firsbrake and Ferncliff Quarries				✓
	Trye's Quarry / Devils Chimney Quarry			✓	
	Deadman's Quarry	✓			
	Limekilns, Quarry	✓			
	Middle and Upper Limekilns Quarries	✓			
	Brownstones Quarry		✓		
	Incline Quarry			✓	
	Daisy Bank Quarry			✓	
	Charlton Kings Crags				✓
Charlton Kings Quarry		✓			
<b>Subject areas</b>	Petrological	✓			
	Palaeontological		✓		
	-Structural			✓	
	Research/ Educational	✓			

#### Evaluation table for the key Geodiversity features on the SSSI

This table places the site in a very high rating for its Geodiversity features. In addition the presence of so many features of a National and Regional value in a single location in itself adds to the overall value of the site.

The key scientific feature is the change of lithology through time, as seen in the sequence of limestones in the quarries. The distinctive lithologies along with their characteristic fossils are the key to understanding the stratigraphy of this part of the Jurassic. The structures, both sedimentary and tectonic, are also importance but

less unique to this site. The geomorphological features are also of secondary nature.

A key attribute of the site is the ability to be able to access the rock faces directly for study, collecting and measuring. The second key attribute is the overall visibility of the exposures from the mid and far viewing aspect. It is important to be able to stand back and see the exposures with the distinctive types of weathering and colouration. A third attribute is improved access to all the differing sites by open tracks and pathways. This will enhance the possibilities for studying the exposures.

**Condition assessment/Status of key Geodiversity features**

**It should be noted that the Condition Assessment below was undertaken in 2001 and that subsequent management, particularly on Priority One sites, has changed the condition of several of the quarries.**

The site has generally degraded significantly in recent years due to scrub and woodland encroachment. Scree build-up is another detrimental factor.

**Wagon Quarry.**

Cleeve Cloud Member	Good sections, 25% obscured by trees in parts
Crickley Limestone Member	Now all obscured by Talus
Faults	Partially obscured by trees and scree
Access /Context	Good access and parking at the site, although talus prevents good access to some faces, viewing is partially obscured by trees.

There is also a site, on the side of the road that leads to the quarry, exposing the base of the Scissum beds/Upper Lias. This needs tree clearance at [redacted] (GR 9449,1775). This work would add significantly to the site area.

**Firsbrake and Ferncliff Quarries.**

Cleeve Cloud Member	Good exposures, some tree cover but this is preventing scrub development
Access /Context	access from the main footpaths is acceptable

### Trye's Quarry /Devils Chimney Quarry

Scotsquar Member	Heavily obscured by trees /scrub and talus
Palaeontology	scree covered in grass
Access /Context	poor access due to dense scrub. difficult to view sections due to tree growth

### Deadman's Quarry

This is one of the most important sections on the SSSI.

Scotsquar Member	Well exposed and fairly free from vegetation/talus
Cleeve Cloud Member	becoming obscured by trees and scrub
Palaeontology	poorly exposed and overworked small scree
Access /Context	Access to some of the faces is dangerous or too steep. the tracks for access have become degraded

### Limekilns, Quarry

This section is in the worst condition on the SSSI.

Crickley Limestone Member	almost totally obscured by scrub/vegetation and talus.
Leckhampton Limestone Member	Good exposure through the upper part. Lower section and Lias contact totally obscured
Palaeontology	Scree in moderate condition but access limited
Access /Context	area almost totally hidden by trees access to the upper part almost impossible

### Middle and Upper Limekilns Quarries

Gryphite Member	poorly exposed due to scrub/grass
Lower Trigonina Grit	only limited exposures, needs enhancing
Scotsquar Member	good exposures but obscured by trees
Cleeve Cloud Member	good exposures by partially hidden by trees
Palaeontology	Almost no collecting /study scree. Main outcrops poorly visible
Access /Context	Access to the section is poor to dangerous. The overall views are mostly hidden by trees. Access tracks are mostly overgrown/lost
Faults	well exposed but needs some access improvement

### Brownstones Quarry.

Upper Trigonina Grit	The exposed are heavily affected by scrub/grass and very weathered
Notgrove Member	The exposed are heavily affected by scrub/grass and very weathered. They are covered in talus also
Gryphite Member	The exposures are becoming grassed over and obscured
Palaeontology	Few good collecting piles exist and specimens are becoming rare
Access /Context	Access is fine and all the sections are clearly visible

### Incline Quarry

Superficial deposits	Well exposed but scrub is beginning to develop on the site
Access /Context	Access is good but the views of the site are becoming blocked by trees/scrub

### Daisy Bank Quarry

Scotsquar Member	Moderately exposed outcrops but heavily fractured
Cleeve Cloud Member	Moderately exposed outcrops but heavily fractured. Lower part obscured by talus and scrub
Superficial deposits	well exposed but becoming hidden by scrub
Faults	Only limited exposure of the cambering and rotational movement
Access /Context	Access is becoming difficult and the views are now 50% hidden by trees

### Charlton Kings Crags

Gryphite Member	Now very poorly exposed
Lower Trigonina Grit	Now very poorly exposed
Access /Context	Good access from the footpaths. Good views of the sections

### Charlton Kings Quarry

Scotsquar Member	sections partially hidden by scrub and talus
Cleeve Cloud Member	sections partially hidden by scrub and talus
Superficial deposits	adequate exposures but poor access to the sections
Faults	moderate access and views showing rotational slumping
Access /Context	Access steep and blocked by scrub. The site is becoming overtaken by trees and scrub

### Major factors affecting the status of key features

The main threats to the rock exposures that affect the whole site are:

Erosion of rock faces that leads to build up of scree and talus slopes, obscuring the basal sections of quarries and making physical access to certain areas hazardous.

Trees with roots in the rock faces that can lever apart the strata and cause collapse, contributing to the above.

Trees on scree that prevent physical access and prevent viewing of the contextual relationship between different exposures. The long distance viewing of the site is one of the more important features that needs to be restored.

Many of the tracks and public rights of way on the site are badly affected by erosion and gullyng.

The natural erosion of the geological sites themselves. However, this is not yet a problem because most of the rock types are extensive in occurrence.

Artificial erosion due to the inappropriate use of mountain bikes, etc, may cause problems in a few instances where beds are of more limited exposure.

The damaging effects of geological visitors is not seen as a problem on any of the sites yet - the nature of old quarries allows for scree collecting of specimens and all the interest is of "Exposure site" in nature. However, fossil collecting, etc, may cause problems in a few instances where beds are of more limited exposure.

Rock climbing is also not seen as damaging to the geological aspects of the sites.

In conclusion the biggest issues are trees and 50 plus years of scree build up, along with poor access to some of the faces.

# **HISTORIC ENVIRONMENT APPRAISAL AND EVALUATION**

## **HISTORIC ENVIRONMENT APPRAISAL AND EVALUATION**

This section has been produced with the assistance of the Gloucestershire County Council Archaeology Service and the Gloucestershire Society for Industrial Archaeology.

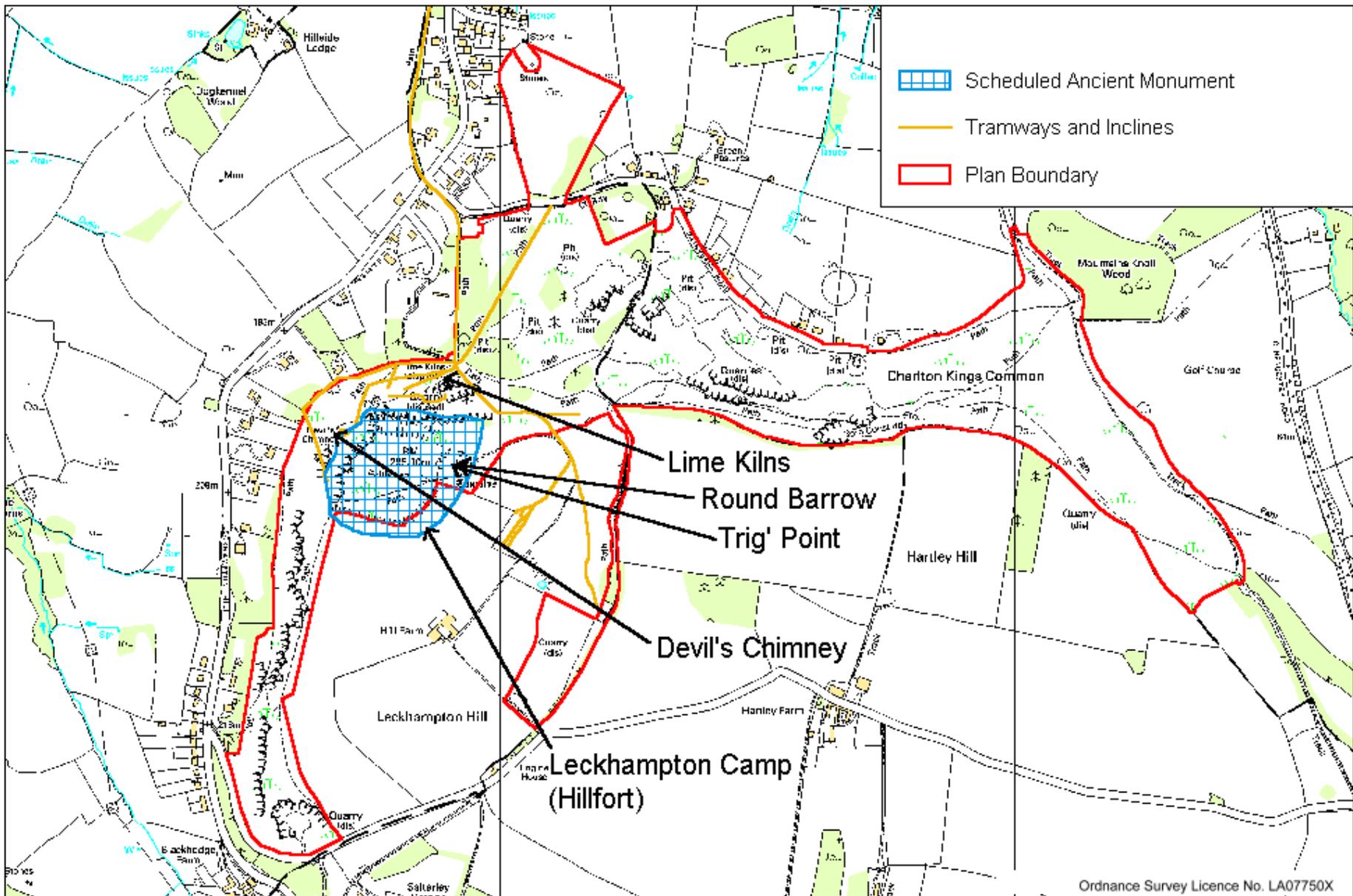
### **GENERAL**

The whole of the Leckhampton Hill and Charlton Kings Common area is of considerable interest as a historic landscape, containing a number of important constituents of the historic environment. These constituents are discussed below and include; a round barrow; a hillfort; military remains; quarries; tramroads and other associated industrial remains, including the limekilns. In addition to these items, the area to the east of the hillfort has also been subject to quarrying, believed to have been during WWII for aggregates intended for airfield runway construction.

The whole area has been shaped and altered by humans over thousands of years, to suit their particular needs. It was a burial place and settlement site in pre-history, a sheep run in the medieval period, quarried for the natural resources in the 18th and 19th centuries and, in the middle of the 20th century, was a site for the defence of Britain. The whole site has been a valuable recreational resource for the people of Leckhampton and Cheltenham for over a century.

Appraisal of the site would not be complete without a reference to the Devil's Chimney. An enigmatic feature, reputed to have been the construction of quarry workers, its origins perhaps not being as important as its survival. A comprehensive programme of repairs was carried out relatively recently and it is believed that the feature is in a stable condition.

The key historic environment features are indicated on the map below



## KEY FEATURES

### Round Barrow Within Square Enclosure



The 'Round' Barrow

This site is part of Scheduled Ancient Monument number 46 and survives as an extremely rare round barrow, a burial mound, within a square enclosure, believed to date from the Iron Age 800BC - 43AD.

The recommended management regime for this site is to maintain open grass cover through light grazing or cutting.

The site appears to survive in a good stable condition.

### Leckhampton Camp

This site is a Scheduled Ancient Monument. Leckhampton Camp is a univallate hillfort (a term for an earthwork of fortification with just one rampart) believed to date from the Iron Age c800BC-AD43. There are surviving rampart to the south and east sides, a large ditched feature to the north, and the remains of 19th and 20th century quarrying to the west.

There are a number of management issues to be addressed on the hillfort. These are earthwork erosion and the OS datum pillar, scrub and tree control, burrowing animals, the provision of amenity facilities and the dry stone wall.



**The hillfort ramparts**



**Erosion around the OS Datum Point (Trig' Point)**

The remains of a former government installation are located on the hillfort. Their nature is unclear, variously described as a military early warning/listening site, or as a weather station. The preservation of these remains should be ensured and, given the ambiguous nature of the site, further research and survey should be undertaken in order to allow interpretation to be formulated for visitors.

### **Quarries and other Industrial Remains**



**The ruined former Electrical Plant House in Lower Limekilns Quarry**

It is probably best to consider these features generally, as a group, first and then to discuss those with particular needs.

The quarries are the result of mineral extraction, limestone in particular, for a variety of purposes. The site has been quarried for thousands of years, with the most recent quarrying taking place for a period of about 150 years from the late 18<sup>th</sup> century to the mid 1920s, the period from which most of the industrial remains survive. The tramroads, railways, inclines and the limekilns are a direct result of these operations and include early plate ways through to the one of the last standard gauge inclines to be established in the country.



**The Limekilns**

The most productive way forward would be to commission an archaeological survey of the area in order to inform future conservation and interpretation, in addition to providing an adequate record of the site in its present form and prior to future works. Any works in the quarries should be preceded by survey of the required level; this could range from photographic to drawn depending on individual circumstances. The principle of producing a record prior to works should be a central tenet of the management plan in addition to that of prior consultation.

### **SUMMARY OF KEY ISSUES AFFECTING THE HISTORIC ENVIRONMENT**

The management plan should specify a practical, inclusive, consultation process that defines the necessary consultees and the procedures to be followed. The process should specify that Gloucestershire County Council Archaeology Service should be consulted on all proposals or works affecting the area, irrespective of the proximity of any known archaeological sites. English Heritage should be consulted on any proposals that may affect the Scheduled Ancient Monuments, the hill fort and the barrow, either directly, indirectly, or their setting.

Practical management works identified as necessary above should be included in an initial phase of the management plan, with further enhancement works, identified as desirable for implementation at a future date subject to funding.

The most immediate required works have been identified as being the repair of various degraded sections of the hillfort rampart and the removal and control of vegetation from both the rampart and the interior of the fort.

A programme of research and survey for the whole site would be a cost effective solution to both the management problems and the enhancement of the public understanding and enjoyment of the site through the provision of enhanced interpretation of the area.

## **THE HISTORIC ENVIRONMENT IMPORTANCE OF LECKHAMPTON HILL**

### **Scheduled Ancient Monument**

As noted above, Leckhampton Camp (the hillfort) and the Round Barrow within it is a Scheduled Ancient Monument. The fact that the site is Scheduled means that it is of national importance.

The definition of 'national importance' is guided by criteria laid down by the Secretary of State for Culture, Media and Sport, covering the basic characteristics of monuments. The criteria include:

- Extent of survival
- Current condition
- Rarity
- Representivity, either through diversity or because of one important attribute
- Importance of the period to which the monument dates
- Fragility
- Connection to other monuments, or group value
- Potential to contribute to our information, understanding and appreciation
- Extent of documentation enhancing the monument's significance

A monument which has been Scheduled is protected against disturbance or unlicensed metal detecting. The Secretary of State must be informed about any work which might affect a monument above or below ground, and English Heritage

gives advice to the Government on each application. In assessing each application the Secretary of State will try to ensure that damage done to protected sites is kept to a minimum.

Written consent must always be obtained before any work can begin. Application forms are available from English Heritage's regional offices. Some works may also need planning permission

Some types of work, generally related to agriculture or gardening, where these activities are already being carried out, may be allowed to proceed without consent.

### **Gloucestershire Sites and Monuments Record**

Details of all the historic environment features included in this section can be found at the Gloucestershire Sites and Monuments Record (SMR). Although important in local or regional context, the archaeological sites and features, other than the Scheduled Ancient Monument, are not legally protected.

SMRs are a primary source of information on the local historic environment. They are fundamental to the conservation and management of the environment through the statutory planning system. They are also an increasingly valuable resource for education and the public enjoyment and understanding of the heritage. SMRs hold databases and collections that cover subjects and periods for archaeology and archaeological investigations ranging from the prehistoric period to the 20th century. Many SMRs also hold information about listed buildings and all aspects of the historic environment for their areas. Information is generally available for research purposes.

# **ACCESS AND RECREATION APPRAISAL**

## **ACCESS AND RECREATION APPRAISAL**

### **GENERAL**

Leckhampton Hill and Charlton Kings Common have been an important recreational asset for the people of Cheltenham for many generations, people having literally fought for the right to access the Hill. Local people regard it as their own and it is essential that their views are fully considered in the development of an effective management plan. Management objectives and the reasons why certain action needs to be taken must be fully understood and supported by hill users for the plan to be effective.

### **History of Access**

“A hundred years ago, when the average man had little opportunity to travel beyond the range of his two legs, Leckhampton Hill, being so close to Cheltenham, was a precious asset and valued accordingly: its popularity was shared by all ..... the hill symbolised freedom for the whole vicinity”

Old Leckhampton, David Bick (1994)

In 1894 the hill was acquired by Henry Dale. Soon after he wrote to the Rural District Council refusing to admit to any rights of access. In 1897 Dale built Tramway Cottage, for the quarry foreman, on an open space at the foot of the middle incline, virtually blocking the main footpath to the hill. In 1899 he fenced a “26 acre piece” on the northern slopes of the Hill down to Daisybank Road. Further obstructions followed.

So incensed were the public that on 8th March 1902 a “resolute crowd “ gathered on the hill and proceeded to partially destroy the fences, completing the task on Good Friday. On 7th July a large gathering tore down the fences around Tramway cottage, and afterwards the four ring leaders were arrested and charged with obstructing the police.

On the evening of their unexpected acquittal, 15th July 1902, “something like two thousand people” processed from Cheltenham to the foot of the Hill, evicting the occupants of Tramway Cottage and burning it to the ground.

In 1904, rights to three public paths were proved in a London court and big victory demonstrations took place in Cheltenham. However, the judge did not define the routes and Dale rebuilt Tramway Cottage in its original position. On Good Friday 1906, following an earlier attack on the cottage, a crowd of two thousand people again gathered and proceeded to attack the cottage, the act culminating in the “Reading of the Riot Act” and the eventual imprisonment of eight of the “rioters”.



**The memorial to George Price, A Leckhampton rioter**

By the time the last of the rioters were released in October 1906, widespread disillusionment for the access struggle had developed and hostilities faded.

The quarrying operation was relatively short-lived and a generation later, in 1927, Cheltenham Town Council (now Cheltenham Borough Council) purchased 400 acres of land, including the Hill (but excluding Charlton Kings Common, which was transferred from Charlton Kings Urban District Council to the Borough Council in 1965) and a substantial area of adjacent agricultural land, from Salterley to boundary with Charlton Kings Common. The Hill was opened to the public in 1929, The Echo describing the day as “one of the great days in the history of Cheltenham”.

In 1971 there was public outcry over a scheme for a 10 acre larch plantation on the slopes above Daisybank Road. By this time much of the Hill had become registered

common land under the Commons Registration Act 1965 and such a scheme required consent under the Law of Property Act. The scheme was nevertheless completed, but the Deputy Town Clerk conceded that

”Clearly we have learnt our lesson - that we have to consult the people of Leckhampton more regarding schemes for the hill.”

In the late 1990s there was a proposal to lease Daisybank Fields to the Woodland Trust for a period of 999 years for the purposes of tree planting. As a result of significant public opposition the proposal was not taken forward. This was a major factor in the Borough Council recognising the need for a mechanism for public consultation and led to the public meetings that culminated in the formation of FOLK.

The public’s regard for the Hill was again revealed during the preparation of this plan. Firstly, by the number of people who attended the public consultation meeting held in Leckhampton on 18th March 2002 and, secondly, by the outcry to geoconservation work which took place in the Limekilns and Dead Man’s Quarries in April 2002.

The public’s actions over the last 100 years demonstrate the need for their involvement in the development of the management plan, and the need for a robust public consultation mechanism.

## **CURRENT USE AND TOURISM**

A variety of recreational and educational pursuits take place on the Hill, some of which are unauthorised: The major uses are as follows:

- Walking.
- Dog walking
- Horse riding
- Rock climbing and Abseiling
- Hang gliding, paragliding and the flying of non-motorised model aircraft
- Cycling and Mountain biking
- Picnicking and Barbecues
- Tobogganing, skiing and snowboarding

- Wildlife observation
- Collection of geological/ fossil specimens
- 4x4 and off-road motorcycling

### Impact of Recreational Activities

The impact of each of the major activities is appraised below. Only those that that have or could have an impact on the integrity of the site are discussed. An asterisk \* against a representative body indicates that they have submitted a paper to inform the development of this management plan.

Activity	Walking (including general access)
Authorised	Yes.
Representative Groups	Ramblers Association. Open Spaces Society.
Location of activity	Public rights of way (linear access), other paths (linear access), on the top of Leckhampton Hill and Charlton Kings Common (open access), Daisybank Fields (open access) The Cotswold way.
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• This is the major activity which takes place on the top of the Hill and on paths leading form the car parks and other perimeter access points to the top of the Hill.</li> <li>• Many tracks on the slopes are heavily eroded (not exclusively the result of walkers).</li> <li>• There is particularly heavy use in and around the hillfort with severe erosion around the ramparts and in the vicinity of the trig' point.</li> <li>• The grass paths on Leckhampton Hill are wide, the vegetation being kept short by trampling.</li> </ul>
Potential Future Impact of Activity	<ul style="list-style-type: none"> <li>• Increased promotion will increase visitor numbers and exacerbate the current impact of the activity to the detriment of historic features and grassland habitats.</li> <li>• Failure to close gates could lead to the escape of grazing animals.</li> </ul>
Health and safety implications	<ul style="list-style-type: none"> <li>• Uneven/ eroded path surfaces.</li> <li>• Steep tracks.</li> </ul>

<b>Activity</b>	<b>Walking (including general access)</b>
	<ul style="list-style-type: none"> <li>• Access close to the top of quarry cliffs.</li> <li>• Falling rocks in quarries.</li> <li>• Conflict with other users, particularly horses and cycles.</li> </ul>

<b>Activity</b>	<b>Dog walking</b>
Authorised	Yes.
Representative Groups	None.
Location of activity	See walking.
Nature and Current Impact of Activity	<p>As walking, also</p> <ul style="list-style-type: none"> <li>• There are currently no formal controls on dogs.</li> <li>• Fouling, causing general unpleasantness!</li> <li>• Fouling, causing localised eutrophication (nutrient enrichment) of grassland.</li> <li>• Wildlife disturbance.</li> </ul>
Potential Future Impact of Activity	<p>As above.</p> <ul style="list-style-type: none"> <li>• Conflict with grazing animals.</li> </ul>
Health and safety implications	<p>See walking.</p> <ul style="list-style-type: none"> <li>• Toxicariasis - disease causing blindness transmitted through human contact with the eggs of the roundworm <i>Toxicara canis</i> with dog faeces.</li> </ul>

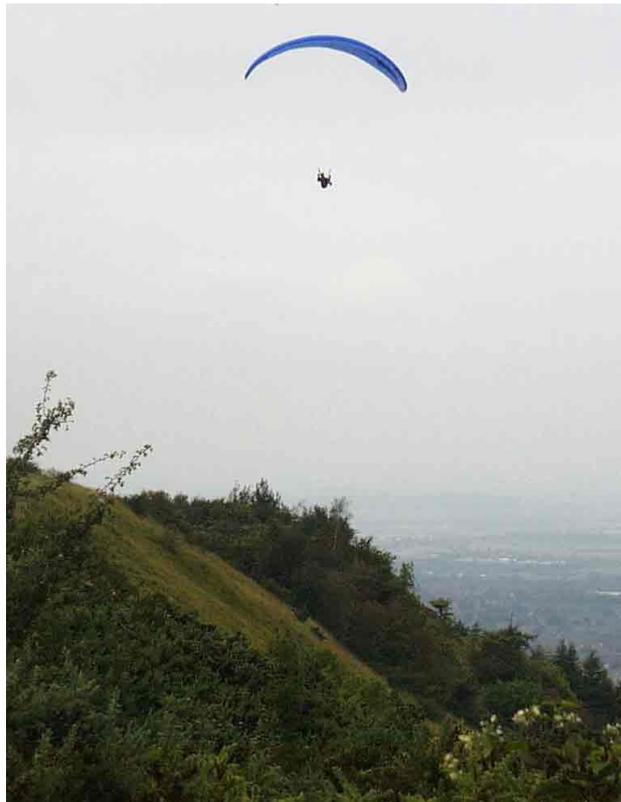
<b>Activity</b>	<b>Horse riding</b>
Authorised	Yes.
Representative Groups	British Horse Society *.
Location of activity	Public bridleways (ALE33 and ZCK57), informally on other tracks.
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• The impact of horse activity is relatively light.</li> <li>• Some erosion attributable, in part, to horses on Charlton Kings Common.</li> </ul>
Potential Future Impact of Activity	<ul style="list-style-type: none"> <li>• Damage to grassland caused by an increased horse activity.</li> <li>• Increased erosion of paths on inclined tracks caused</li> </ul>

	by increased horse activity.
Health and safety implications	See walking.

<b>Activity</b>	<b>Rock climbing and Abseiling</b>
Authorised	Yes, by arrangement
Representative Groups	British Mountaineering Council
Location of activity	Quarries, particularly Dead Man's Quarry.
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• No impact.</li> <li>• Rock climbing and abseiling is an infrequent activity.</li> <li>• There are some fixed abseil/top rope points.</li> </ul>
Potential Future Impact of Activity	None.
Health and safety implications	Potential for rocks to be dislodged on unstable faces which could endanger climbers and people below (note because of the nature of the geology all quarry faces are susceptible to freeze/thaw action and are potentially unstable.

<b>Activity</b>	<b>Hang gliding, paragliding and the flying of non-motorised model aircraft.</b>
Authorised	Yes.
Representative Groups	Malvern Hang Gliding Association *. Gloucestershire Soaring Association * (model aircraft).
Location of activity	<ul style="list-style-type: none"> <li>• The site is important as it enables the activity to occur when the wind is blowing from the north (the closest alternative site being near Abergavenny).</li> <li>• The main launch point is on Charlton Kings Common.</li> </ul>
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• As northerly winds are uncommon the site is infrequently used (15 -25 days per annum).</li> <li>• Limited disturbance to horses.</li> <li>• Scrub encroachment is restricting the main launch site.</li> </ul>

Potential Future Impact of Activity	None envisaged.
Health and safety implications	<ul style="list-style-type: none"> <li>• Obvious risk to individuals caused by equipment failure during free flying (hang-gliders and paragliders).</li> <li>• Potential for collision with other users.</li> </ul>



**A paraglider over Charlton Kings Common**

<b>Activity</b>	<b>Cycling and Mountain biking</b>
Authorised	Yes.
Representative Groups	Cheltenham and County Cycling Club *.
Location of activity	All paths, quarries (particularly in the vicinity of Dead Man's quarry), informal slalom course in woodland.
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• The site is used by mountain bikers as a destination in its own right and as a "gateway" to trails further afield.</li> <li>• The steep terrain and open access makes Leckhampton Hill a particularly attractive site from mountain bikers.</li> </ul>

	<ul style="list-style-type: none"> <li>• The impact of mountain bikes is high particularly in the vicinity of Dead Man's Quarry (see photo) with concentrated cycle activity causing major erosion.</li> <li>• Mountain bikes activity (exacerbated by rainwater run-off) is the principle cause of erosion on the inclines/tracks.</li> <li>• Mountain bikers have developed "their own" slalom course, and jumps.</li> <li>• Conflict with other users, in particular walkers and horses, caused by fast moving cyclists.</li> <li>• The woodland is a relatively robust habitat that can accommodate mountain biking fairly well.</li> <li>• The grassland is a fragile habitat being supported on a very thin layer of soil, overlying the limestone rock. Repeated passage by mountain bikes rapidly removes the soil layer and exposes the bedrock.</li> </ul>
Potential Future Impact of Activity	<ul style="list-style-type: none"> <li>• Mountain biking is a relatively new sport and is still growing in popularity. Whilst the current effect on the site by mountain bikers is marked it may well increase further.</li> <li>• Opening up narrow paths and tracks will extend the cycle use throughout the site.</li> </ul>
Health and safety implications	<ul style="list-style-type: none"> <li>• Uneven/ eroded path surfaces.</li> <li>• Steep tracks.</li> <li>• Access close to the top of quarry cliffs.</li> <li>• Falling rocks in quarries.</li> <li>• Collision with other users.</li> </ul>



**Mountain Bike Erosion in Dead Man's Quarry**

<b>Activity</b>	<b>Barbecues</b>
Authorised	No.
Representative Groups	None.
Location of activity	Particularly in the vicinity of the hillfort.
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• Slight impact.</li> <li>• Localised fire sites have destroyed grassland which could lead to further erosion</li> <li>• Major source of litter.</li> <li>• Associated with demolition of former Electrical Plant House to provide hearthstones and seats.</li> </ul>
Potential Future Impact of Activity	<ul style="list-style-type: none"> <li>• Exacerbation of erosion.</li> <li>• Potential for uncontrolled and extensive grassland and scrub fires which could lead to habitat destruction</li> </ul>
Health and safety implications	<ul style="list-style-type: none"> <li>• Grass/scrub fires.</li> </ul>

<b>Activity</b>	<b>Tobogganing, skiing and snowboarding</b>
Authorised	Yes.
Representative Groups	None.

Location of activity	<ul style="list-style-type: none"> <li>• Open grassland slopes (particularly Charlton Kings Common).</li> <li>• Daisybank Fields.</li> </ul>
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• Some evidence of minor erosion caused by repeated use of toboggan runs on slopes of Charlton Kings Common.</li> </ul>
Potential Future Impact of Activity	As Current.
Health and safety implications	<ul style="list-style-type: none"> <li>• Collision with other users.</li> <li>• Collision with fixed objects.</li> </ul>

<b>Activity</b>	<b>Collection of geological/ fossil specimens</b>
Authorised	Not specifically.
Representative Groups	Gloucestershire Geoconservation (Gloucestershire RIGS Group).
Location of activity	Quarries.
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>• The quarries at Leckhampton Hill represent nationally important geological exposures.</li> <li>• Exposures are regularly visited by professional and amateur geologists and palaeontologists, including educational groups.</li> <li>• Recent geological management work has created scree ramps which enable the close inspection of higher parts of the exposures in Lower Limekilns and Dead Man's Quarries.</li> <li>• Geological and fossil specimens are collected from scree slopes and direct from the rock faces.</li> <li>• The impact of specimen collection is slight.</li> </ul>
Potential Future Impact of Activity	No greater than current activity.
Health and safety implications	<ul style="list-style-type: none"> <li>• Newly created scree ramps are encouraging improperly equipped members of the public to walk close to the base of the cliffs, potentially putting themselves in danger from rock falls.</li> <li>• Danger from falling rocks from quarry faces during</li> </ul>

<b>Activity</b>	<b>Collection of geological/ fossil specimens</b>
	specimen collection. <ul style="list-style-type: none"> <li>Localised destabilisation of quarry faces and subsequent rock fall.</li> </ul>

<b>Activity</b>	<b>4x4 and off-road motorcycling</b>
Authorised	Not on the Hill, although due to the uncertainty over their legal status, the Daisybank Road RUPP and Turnpike are used.
Representative Groups	Gloucestershire 4x4 Owners Club.
Location of activity	<ul style="list-style-type: none"> <li>Unauthorised motorcycling takes place infrequently on all parts of the Hill and Common, with Brownstone quarry being a favoured location.</li> <li>4x4s and motorcycles use Sandy Lane and Daisybank Road.</li> </ul>
Nature and Current Impact of Activity	<ul style="list-style-type: none"> <li>The current impact is slight.</li> </ul>
Potential Future Impact of Activity	<ul style="list-style-type: none"> <li>No greater than current activity.</li> </ul>
Health and safety implications	<ul style="list-style-type: none"> <li>Collision with other users, in particular walkers, cyclists and horses.</li> </ul>

## **ACCESS**

There are numerous public access points (See map 4 in the general description) and several unofficial access points to the woodland from residential properties at the bottom of Leckhampton Hill.

### **Car parking**

There are car parks at Salterley (Wagon) Quarry, Brownstone Quarry and off Daisybank Road. The locations are indicated on Map 4.

All car parks are of a rolled stone construction.

In general the car parks are in a reasonable condition, but security is a problem, with some visitors using adjacent roads for parking to reduce the perceived risk of break-ins.

### **Salterley (Wagon) Car Park**

This is the largest of the car parks, with accommodation for approximately 50 vehicles. As the car park has an irregular shape, vehicles tend to be parked haphazardly (see photo) which results in inefficient use of the space.

A height restricter has recently been installed at the entrance to prevent access by large vehicles.

The surface is in good condition, but suffers from water erosion in the vicinity of the entrance. A soak away fed by a pipe has been installed to remove standing water.

Pedestrians access the Hill via two steep tracks, both of which are unsuitable for wheelchairs or pushchairs. It would not be feasible to improve these tracks for people with disabilities. A public footpath (the Cotswold Way) accesses the Hill immediately to the East of the car park. Although steep, this path offers greater potential for improving disabled access. The Cotswold Way Team has indicated that they are keen to investigate access improvements in this location.



**Salterley Car Park**



**The Cotswold Way adjacent to Salterley Car Park**

### **Brownstone Car Park**

A medium sized car park in an isolated and exposed location on the Leckhampton Hill plateau with accommodation for up to 35 (well parked) vehicles. The surface is in a fair condition, but large areas of standing water develop in periods of wet weather (see photo).



This car park offers the best opportunity for disabled access to the top of Leckhampton Hill as the terrain is flat. A tarmac track, the surface of which is in reasonably good condition (see photo), takes visitors to Leckhampton Camp via Hill Farm and could be relatively easily upgraded for wheelchair use.



**The tarmac track as it accesses Leckhampton Hill**

This track is also the primary route for maintenance and emergency vehicle access to the top of the Hill. Vehicular access from this car park has recently been modified to allow maintenance access to Charlton Kings Common.

There is also a track to Charlton Kings Common, via Brownstone Quarry, exiting the car park in the north west corner. The access point is very poor and requires major improvement even for reasonable use by able-bodied visitors.

### **Daisybank Road Car Park**

There is a small car park off Daisybank Road at the foot of Leckhampton Hill. The car park lies next to Tramway Cottage and is in good condition. It can accommodate approximately 20 (well parked) vehicles. There is access to the Hill for all-terrain maintenance vehicles to the south of this car park, via the middle incline. The car park is also used by emergency vehicles.



**The main car park off Daisybank Rd**



**Emergency vehicles called to assist an injured mountain biker**

Several obvious steep tracks enable access to the upper parts of the Hill, all of which are unsuitable for disabled access.



**Cars parked on Daisybank Road near the Standard Gauge Incline (Not an official Car Park)**

## **APPRAISAL OF SPECIFIC ISSUES AFFECTING ACCESS**

### **Public Rights of Way**

The whole site is crossed by a network of public rights of way. Public footpaths predominate, however there is also a bridleway (comprising two defined paths, ZCK57 and ASH33) and a Road Used as Public Path (RUPP). All public rights of way are defined on Map 3.

- Public Footpaths confer a right of way for pedestrians only
- Public Bridleways confer a right of way for pedestrians, horses and cycles
- RUPPs confer a right of way, at least, for pedestrians and possibly for horses and vehicular traffic

The landowner, Cheltenham Borough Council, has a number of responsibilities that relate to the rights of way that cross the site. The most relevant are that landowners should:

- Know where public rights of way shown on the Definitive Map cross their land.
- Cut back overhanging and encroaching vegetation that affects public rights of way.
- Maintain stiles and gates on paths across their land in a safe and convenient condition for public use.

- Byways, Roads used as Public Paths and County Roads must not be cultivated or disturbed under any circumstances.
- Not allow any dairy bull over 10 months of age to range freely in any field through which a right of way passes, and ensure that bulls of other breeds are accompanied by cows or heifers. Dairy breeds are:- Ayrshire, Jersey, Dairy Shorthorn, Kerry, British Friesian, British Holstein, Guernsey.
- *Landowners and farmers should obtain the consent of the County Council before erecting stiles or gates in new locations along a footpath or bridleway.*
- Make arrangements with the County Council for paths which will be affected by drainage or other engineering works to be properly diverted on a temporary basis.
- Provide adequate bridges where new ditches are made or existing ones widened.
- Remember that it is illegal to put plain, barbed, or electrified wire across a right of way.

Public rights of way are the only means by which the general public has a legal right to access the area. However, Cheltenham Borough Council allows access for pedestrians, horse-riders and cyclists on a permissive or informal basis. Although much of the area is registered common land, the general public do not have general rights of access (see Registered Common Land below).

A critical look at the rights of way network reveals its inadequacy in relation to horse-riders and cyclists. In particular:

- There are only two legal access points, off Leckhampton Hill (the road) and along Daisybank Road.
- If legal access cannot be demonstrated over the old Turnpike Road, then there will be a significant reduction in opportunities.
- There are no circular routes.

The Countryside and Rights of Way Act 2000 (CROW Act), will change the access situation.

Specifically in relation to rights of way, the Act improves the current legislation by encouraging the creation of new routes and clarifying uncertainties about what

rights already exist. Fact Sheets on all aspects of the CROW Act can be found in Appendix 7.

The provisions most pertinent to the Leckhampton Hill and Charlton Kings Common include:

- Roads used as Public Paths (RUPPs) will be redesignated as a new category known as a Restricted Byway having public rights of way for non-motorised users;
- Powers enabling diversions of rights of way to protect SSSIs;

### **Cotswold Way National Trail**

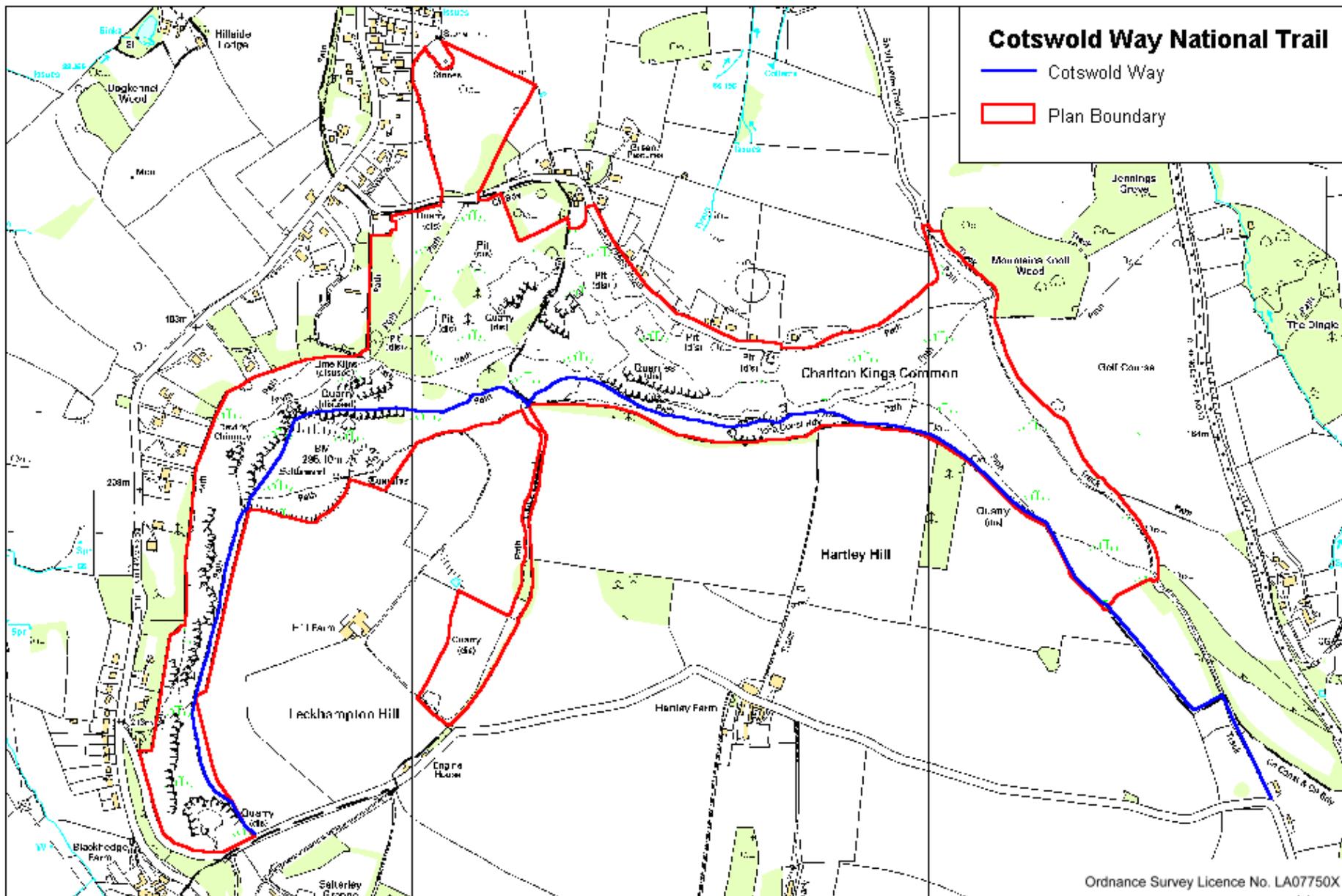
The Cotswold Way, designated as a local distance footpath in 1970 and a National Trail in 1998, crosses the site following the existing rights of way network (see map below). As a National Trail this is one of the premier walking routes in England and attracts walkers from all over the world. The trail does not bring additional responsibilities to those required by rights of way legislation, but presents an opportunity to attract additional funding for management and interpretation. The Trail is managed by a dedicated team, which are not part of the County Council rights of way department.

### **Registered Common Land**

Notes on the current status and legislation on Registered Common Land and proposed revisions to the legislation can be found in Appendices 12 & 13.

Common land is usually in private ownership, with rights of common over it. Currently, the general public has no right (of common) to roam on common land unless the land is an urban common, or via public rights of way. However, in addition to revisions to the rights of way network, the CROW Act also confers a new right of public access on foot to Registered Common Land.

When the right of access to registered common land is applied (by 2005), pedestrians will have legal access across the common land on the site. However, legal access for horse-riders and cyclists will remain restricted.



## **Commons Registration Act, 1965**

Gloucestershire County Council, as the Registration Authority under the Commons Registration Act 1965, holds a Register of Common Land. Each area of common land listed in the Register has a unique 'Registered Unit Number'.

Registrations are divided into three sections showing details of:

- Land - This includes a description of the land, who registered it and when the land was registered. There is also a map which show the boundaries of the land.
- Rights - This includes a description of the rights of common (eg the right to graze 100 sheep), over which area of the common they are exercisable and the name of the person (the 'commoner') who holds those rights.
- Ownership - This includes details of owner of the land. However, entries in this section of the register are not held to be conclusive.

The site includes three areas of Common Land, registered under the Commons Registration Act 1965.

### **Registered Common CL171**

- The tract of about 72 acres known as Leckhampton Hill in the parish of Leckhampton Gloucestershire... registered pursuant to application number 470 made 14<sup>th</sup> May 1968 by Harry Long and Mrs Muriel Alicia Long.”
- The area was modified on 27th June 1973 to exclude scheduled rights of way ALE 20, 21, 22, 23, 24, 26, 32, 33, 34, 35 and 37.
- There are no “rights of common” over the whole or any part of the land.
- Cheltenham Borough Council is the owner of “the whole of the land comprised in this register unit”

### **Registered Common CL172**

- “The area of about 76.5 acres of land known as Charlton Kings Common in the urban district of Charlton Kings, Gloucestershire
- The area was modified on 2nd July 1973 to exclude the scheduled rights of way CK 56, 57, 58, 60, and 65.
- There are no “rights of common” over the whole or any part of the land.
- The Ownership section of the Register does not show an owner for the land, but states “see note over”. This states “ the land comprised in this register

unit has been registered under the Land Registry Acts 1925 to 1966". Ownership can not be registered under two acts (advice from DEFRA, Wildlife and Countryside Unit), therefore ownership details are not included in the Commons Register. Enquiries through the Estates Department at Cheltenham Borough Council identify Cheltenham Borough Council as the landowner.

### **Registered Common CL173**

- "The additional pieces of land at Leckhampton Hill containing 11.2 acres or thereabouts in the parish of Leckhampton, Gloucestershire.... Registered pursuant to application number 739 made 10 June 1968 by Leckhampton Parish Council Gloucestershire."
- The area was modified on 27th June 1973 to exclude scheduled rights of way ALE 21, 27 and 36.
- There are no "rights of common" over the whole or any part of the land.
- Cheltenham Borough Council is the owner of "the whole of the land comprised in this register unit".

### **Fencing and Works on Common Land**

The erection of fencing or carrying out of other works on common land is regulated by Section 194 of the Law of Property Act 1925. Under this provision the consent of the relevant Secretary of State must be obtained for fencing or works which would prevent or impede access to common land.

As noted earlier the common land legislation is currently under review. Progress to has been slow. However, a policy statement was finally published on 23 July 2002 and can be found at:

<http://www.defra.gov.uk/wildlife-countryside/consult/common/responses/policy.pdf>

A summary of the proposed revisions to legislation can be found in Appendix 13.

The most relevant proposals are that consent for fencing will still need to be sought and that the criteria for granting of consent for fencing should more explicitly take account of the "conservation of wildlife and its habitats and of natural and historic features".

# **LANDSCAPE AND VISUAL APPRAISAL**

## LANDSCAPE AND VISUAL APPRAISAL

### INTRODUCTION

Leckhampton Hill is a distinctive topographical feature on the edge of the Cotswolds, south south east of Cheltenham by approximately two kilometres. Charlton Kings Common occupies an eastward continuation of the same topography. The entire location encompasses a complex arrangement of north and west facing grassland and tree covered slopes with an upper plateau predominantly of farmland. The area has an equally complex historical and contemporary significance relating to both ancient occupation, more modern industrial activity and currently as a leisure, educational and scientific resource.

At the time this report was compiled there were various management options, intended to conserve and enhance the special characteristics of the site, under consideration. Because of its sensitive nature, local, regional and national significance and its statutory designations it has been necessary to carry out an *Environmental Assessment* to assist the development of the proposals.

It was determined during the assessment screening process that landscape impact must be considered and that the scope of assessment must focus on local effects, but also consider regional and national effects, where relevant.

In March 2002 a landscape survey was carried out as the first stage of the assessment. The management proposals have been part of an extensive public consultation. Consideration of landscape issues, as part of the wider spectrum of issues under investigation, provides the opportunity to use medium and long-term proposals within the management plan to mitigate the possible effects of negative impacts.

This report considers the existing base-line conditions, the prediction and assessment of impacts and the need for mitigation of those impacts.

## BASE-LINE CONDITIONS

The character of a landscape is formed by the interaction of numerous influences. The defining characteristics of the location are therefore often the clear result of dominant influences. Leckhampton Hill has easily distinguishable, visual or landscape characteristics. These should be properly considered as resources requiring either protection or improvement.

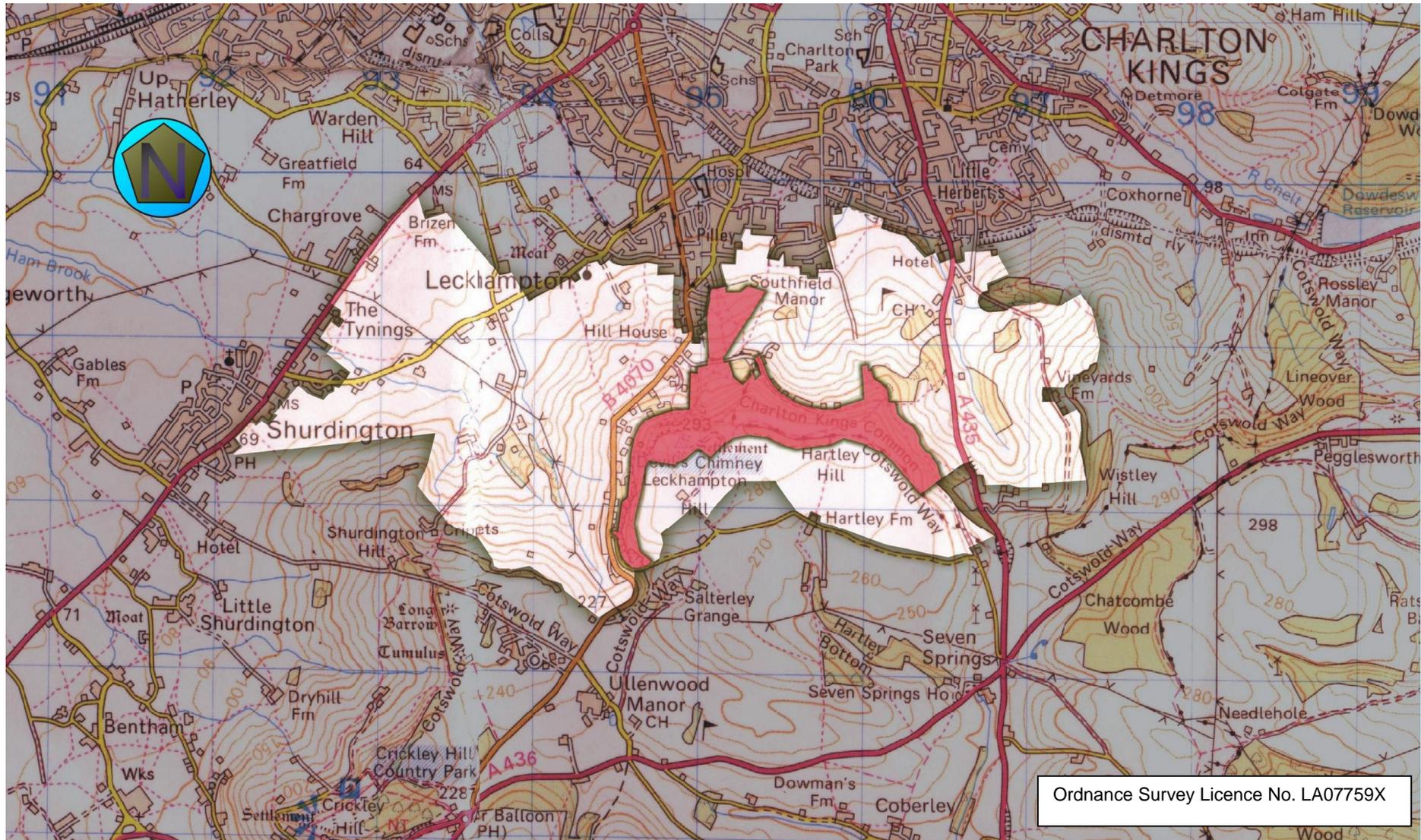
1. Steep scarp slopes and upper plateau.
2. Earthworks, landforms and rock forms of ancient and recent origin.
3. Large areas of mixed woodland.
4. Slopes of grassland reverting to scrub.
5. Large areas of scrub.
6. Farmland.
7. Evidence of intense human activity.

The common terms of reference used in this report originate from the location plan drawn up by Gloucester Wildlife Management Ltd for the *Leckhampton Hill SSSI Site Management Plan 1992-1996*. The description that follows expands on the visually significant features of the resources listed above.

1. Topographical features form the most visually interesting features of this landscape. The elevated position of the upper plateau provides spectacular views and is correspondingly highly visible over long distances (see Map - Zone of Visual Influence<sup>1</sup> and Photographs A & B). It is a significant feature in the setting of Cheltenham (Photograph C). Lower slopes are commonly gentle, increasing in steepness to sheer faces, in some locations, with rock outcrops below the rim of the plateau.

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<sup>1</sup> A distance of 1000m is often used as the determinant for visual significance. Views beyond this distance do not allow sufficient scrutiny to determine minor, or even moderate, changes in the landscape (such as the removal of trees). In the same way, a ZVI considers locations that permit uninterrupted visibility or intervisibility. Therefore the edge of a built up area, a large hedgerow, a belt of woodland, or a change in topography are often sufficient visual obstructions to draw a limit to the zone. The ZVI is necessarily drawn by anticipating visibility from public places and it cannot estimate opportunities provided by private locations unless a detailed survey is carried out for the purposes of mitigation or compensation.



Ordnance Survey Licence No. LA07759X

**Zone of Visual Influence**



**Photograph A - View from Leckhampton Hill over “Dead Man’s Quarry” towards Cheltenham.  
(March 2002)**



**Photograph B - View from Leckhampton Hill over Charlton Kings Common towards  
Cheltenham. (March 2002)**



**Photograph C - View of Leckhampton Hill from the Pilley area – suburb of Cheltenham. (March  
2002)**

2. Above the North Scarp and Central Common are the earth embankments of an Iron Age hillfort (otherwise called Leckhampton Camp). They are the

most distinctive and significant features of the plateau, human in scale and a clear reference to the longevity of the Hill's local importance. Industrial earthworks and remnants on the wooded "North Scarp" and "Quarry" slopes, although relatively modern in origin, are of similar local significance. The disused quarry workings, although in the process of reverting to scrubby woodland, are particularly visible features and of additional interest for their geological characteristics (Photograph D).



**Photograph D - Quarry slopes reverting to scrub. (March 2002)**

3. A mixture of deciduous and coniferous woodland covers the majority of the Quarries, West and North Scarps and Common West areas. The coniferous woodland is concentrated within the North Scarp area. The woodland in the West Common area turns progressively into scrub further to the East. The broadleaf deciduous woodland is a determinant feature of the landscape, engendering a secluded and peaceful environment, intimate in scale, complimentary to the strong forms of the industrial remnants and embankments. The coniferous woodland is younger and is not of equal benefit to the landscape. The woodland, as a whole, is visually significant in views of Leckhampton Hill from many locations within the Zone of Visual Influence.
4. Grassland extends over the majority of Charlton Kings Common Centre and the eastern and top areas of Leckhampton Hill. The absence of woodland in these areas emphasises the dramatic appearance of the topography. It is as visually significant as the woodland views in the ZVI.
5. Grassland reverting to scrub is a frequent feature of the whole Charlton Kings Common, Daisybank Field and Leckhampton Hill. The scrub does not increase the amenity of the locality, but neither is it a significant detractor where it does not block paths or interfere with significant views.

6. The farmland occupies the majority of the plateau area. It is low grade agricultural land reclaimed from quarrying. The landscape neither improves nor detracts from the character or amenity of Leckhampton Hill and Charlton Kings Common, but forms a neutral background.
7. The whole area accommodates frequent and varied leisure activity. The visible evidence of this seen in numerous worn cycle tracks, mountain bike courses, footpaths and the removal of vegetation. FOLK is responsible for the most recent, and visible, clearance of encroaching scrub (Photograph E). There are official car parks both at the top and near to the bottom of the North Scarp. Whilst there is constant traffic and frequent access from casual visitors, at the time of survey, there appears to be more than usual care taken in keeping the whole area free of litter. There is some evidence of criminal activity in the dumping and wrecking of cars and some deliberate damage to fences and gates has occurred.



**Photograph E – Scrub removal to conserve grassland. (March 2002)**

The strongest but almost intangible feature of Leckhampton Hill and Charlton Kings Common is the sense of wilderness or seclusion and removal from the urban environment which is in close proximity. The chief contributing characteristics are:

- a. Very little signage, fencing or common countryside and urban furniture
- b. Mature broadleaf woodland
- c. Natural reversion and encroachment of vegetation over man-made forms

Despite the sense of wilderness the locality is able to provide a high degree of pedestrian and cycle access for inhabitants of Cheltenham.



**Photograph F – Seclusion and a sense of wilderness: below Dead Man’s Quarry leading to the Limekilns. (March 2002)**

## **IMPACT PREDICTION**

This section examines:

- What is proposed
- What will be effected
- What the consequences might be
- What can be done to minimise negative impacts

The broad management proposals include the following:

- Management of limestone grassland and scrub
- Changes to woodland management
- Improved access for recreation including improved paths or repairs to existing paths and tracks.
- The fencing of some grassland areas to control grazing
- Geoconservation work to enhance geological exposures (whilst also making them more visible and accessible)
- New signage including posts, way markers and low level information panels at key locations

Areas or features that will be affected listed in order according to the proposals above:

1. All areas of scrub on the Common and at the top of the Hill (including Leckhampton Camp).
2. All areas of woodland including the Scarp slopes, the Quarry, and the Western part of the Common.
3. The whole area will be affected by improved access, although areas already easy to access will be less affected.
4. The geoconservation work primarily affects the Quarry areas (which includes the limekilns)
5. Fencing proposals of different types throughout the whole area.
6. New signage and information panels at key locations (such as features or sites of historic or geological importance) within the area and at access points on the boundaries.

The potential visible consequences or impacts upon the landscape caused by the proposals are defined on a 7 point scale - as either slight, moderate or substantial positive impacts, neutral impact or slight, moderate or substantial adverse or negative impacts. Only substantial (occasionally moderate) adverse impacts are highlighted. Whilst this is done to draw attention to the need for mitigation it should be recognised that the positive impacts listed below are normally moderate to substantial in nature. The subjects are listed in order as above:

### **1. Scrub management**

- a. The primary positive impacts are in the conservation of the natural balance of vegetation in harmony with the recreational and educational potential of the locality.
- b. The primary negative impacts of excessive or badly planned clearance would be to detract from the wild character of the whole area and leave woodland and grassland areas apparently discordant with the topography and each other. **(POTENTIAL FOR MODERATE TO SUBSTANTIAL ADVERSE IMPACT)**  
There is also the possibility of scrub remnants of unnatural appearance occurring in visually prominent positions. **(POTENTIAL FOR MODERATE TO SUBSTANTIAL ADVERSE IMPACT)** (Failure to remove or manage scrub encroachment could have negative impacts in the short-term but would ultimately result in colonisation of the entire area by climax woodland.)

## **2. Woodland management:**

- a. The primary positive impacts are in the conservation of the natural balance of woodland succession in harmony with the recreational and educational potential of the locality. There exists the opportunity to conserve and enhance visual amenity and perceived safety for people using the woodland in recreational pursuits. There also exists the opportunity to improve visual access to the industrial heritage contained within the woodland.
- b. Management could cause deterioration of the “wilderness” characteristic throughout the Scarp areas and potentially throughout the whole study area. **(POTENTIAL FOR MODERATE TO SUBSTANTIAL ADVERSE IMPACT).**

## **3. Access:**

The location of main access routes to protect areas or features sensitive to deterioration constitutes one primary positive impact. Improved access for all has the potential to make a substantial positive impact.

The use of inappropriate designs or materials in the provision of access could detract from the character of the area. **(POTENTIAL FOR SUBSTANTIAL ADVERSE IMPACT).**

## **4. Geoconservation:**

- a. The sensitive enhancement of existing geological exposures in conjunction with enhancement of the industrial heritage would make a significant contribution to the amenity of the Quarry areas.
- b. Unbalanced or over-intense reordering of the natural environment in order to improve access or visibility of the geological exposures could severely compromise the visual amenity of the Quarry areas. **(POTENTIAL FOR SUBSTANTIAL ADVERSE IMPACT).** This issue and that of improved access as in 3. are interdependent.

## **5. Fencing:**

- a. The primary positive impacts are in the conservation of the natural balance of vegetation in harmony with the recreational and educational potential of the locality.
- b. The use of highly visible or inappropriate types of fencing could detract from the character of the area. **(POTENTIAL FOR MODERATE TO SUBSTANTIAL ADVERSE IMPACT).** Fencing could also cause deterioration of the “wilderness” characteristic throughout the Scarp areas and potentially throughout the whole

study area. (**POTENTIAL FOR MODERATE TO SUBSTANTIAL ADVERSE IMPACT**).

#### **6. Signage:**

- a. Clear signage can improve access and increase understanding and awareness of the study area's value for all visitors. It can also increase the sense of safety in assisting visitors to find frequently used routes through the area.
- b. The use of highly visible or inappropriate types of signage could detract from the character of the area. (**POTENTIAL FOR MODERATE TO SUBSTANTIAL ADVERSE IMPACT**). Signage could also cause deterioration of the "wilderness" characteristic throughout the Scarp and woodland areas and potentially throughout the whole study area. (**POTENTIAL FOR MODERATE TO SUBSTANTIAL ADVERSE IMPACT**).

#### **MITIGATION**

The constant development of the management plan, with knowledge of the landscape assessment will ensure that the negative impacts of the proposals are minimised and the benefits enhanced. In more detail and listed in order as above:

Impacts requiring mitigation are listed in order as above:

1. **Scrub management:** Care must be taken to leave sufficient scrub on the edge of woodland areas to imitate the natural order. Similarly, blocks of scrub that remain after clearance must be left to resemble the natural order in shape, species composition and location. Scrub can be extremely useful in its exclusion of human activity where it might be either undesirable or a cause of secondary negative impact – to biodiversity for instance. The proposals must therefore consider the retention of scrub in strategic locations.
2. **Woodland management:** Care must be taken to imitate natural order in the felling and general management of the woodland. Clearance of undergrowth and the deposition of brash must be organised to both encourage and control access.

3. **Access:** Opportunities to improve access must be co-ordinated with the scrub and woodland management but also with sensitivity towards the industrial heritage and the seclusion of some areas.
4. **Geoconservation:** Opportunities for geoconservation must include careful preparation and reinstatement when the work to enhance exposures is complete. This is considered essential in the minimisation of secondary impacts.
5. **Fencing:** The sparing use of fencing limiting it to locations where no other barrier will be an adequate substitute (the proposed use of topographical barriers (such as cliffs) will minimise fencing in prominent locations.); and the use of natural materials for posts; minimising the use of wire or other metallic (or plastic) materials will reduce the likelihood of visual impact overall. The placing of fencing should be determined in close consultation with the relevant parties “on site”.
6. **Signage:** The use of natural materials and subtle colouring for writings and signs will reduce the likelihood of visual impact overall. The appropriate placing of posts can cause the impacts to be of a positive nature and should be determined in close consultation with the relevant parties. Information panels should be carefully designed to compliment the prevalent naturally occurring materials of the location by using them either structurally or as a guide to colouring, shape or form.

**Further recommendations and summary:**

Assessment of all new proposals should be a continuous process even during implementation. The ongoing effects of the proposals should be monitored as part of a multi-disciplinary consultation in conjunction with local interest groups. The ultimate purpose being the reduction or avoidance of unforeseeable (perhaps cumulative) impacts and the exploitation of opportunities to further enhance beneficial effects.

Leckhampton Hill and Charlton Kings Common are in need of a co-ordinated and carefully measured management plan that facilitates the conservation and enhancement of its valuable resources. It is the recommendation of this report that the current proposals of the management plan have sufficient potential to achieve this. However, it is also the recommendation of this report that the items and issues raised within the section covering “MITIGATION” are incorporated at an early stage into the implementation of the management plan.

**PART THREE.**

**HEADLINE**

**OBJECTIVES AND**

**RECOMMENDATIONS**

## INTRODUCTION

The headline management objectives for Leckhampton Hill and Charlton Kings Common have been determined through:

- Identification of the objectives of the owners, Cheltenham Borough Council.
- Identification of the objectives of the Site Management Plan Steering Group partners comprising representatives from the Cotswolds Area of Outstanding Natural Beauty (AONB), English Nature and the Friends of Leckhampton Hill and Charlton Kings Common (FOLK).
- Consultation with the FOLK Executive Committee.
- Identification of the objectives and aspirations of local interest groups.
- Gathering and evaluation of existing information on all aspects of the site.
- Consideration of national and local designations.
- Identification of the local community's "Hopes and Fears" for the future management of the site.
- Commissioning new studies.
- Reviewing the history of site management and access.
- Identification of management constraints.

The initial draft objectives were agreed by the Management Plan Steering Group in May 2002. These have undergone further scrutiny and refinement and are outlined in the next section. The headline objectives underpin the management objectives for all aspects of site.

# **HEADLINE OBJECTIVES**

## **HEADLINE OBJECTIVES**

The headline objectives set the scene for the management of Leckhampton Hill and Charlton Kings Common and underpin the decision making process applied to the development of the management recommendations.

### **HEADLINE OBJECTIVE ONE**

**HO-1 TO CONSERVE AND ENHANCE AREAS OF NATIONAL SIGNIFICANCE (SSSI, SAM) AND FURTHER THE AIMS AND OBJECTIVES OF COTSWOLDS AONB MANAGEMENT STRATEGY. PROTECTION OF DESIGNATED NATIONAL ASSETS TAKES PRECEDENCE OVER ALL OTHER MANAGEMENT OBJECTIVES.**

The biodiversity and geodiversity of the site receives national statutory protection through the designation of a substantial area as a Site of Special Scientific Interest. The hillfort, Leckhampton Camp, is a Scheduled Ancient Monument and the whole area lies within the Cotswolds AONB, designated as the finest, or most characteristic, landscape of its type in England and Wales.

Because of its national importance and the associated statutory requirements for protection it has been determined that the conservation and enhancement of these environmental resources should take precedence over all other management objectives. This should not restrict access or be a constraint to the public enjoyment of the site for a range of recreational pursuits, indeed it should enhance the visitor experience.

Decision-making is complicated by overlapping designations, for example in the area of the hillfort, where both the archaeological features and limestone grassland are protected. A balanced decision will be made to determine the appropriate management to ensure that the integrity of both national environmental assets is not compromised. Potential conflicts will also arise in the management of the quarries many of which are important geologically and ecologically. Survey work and evaluation will enable a balanced judgement to be made.

**HEADLINE OBJECTIVE TWO****HO-2 TO MAINTAIN THE OPEN, SEMI-NATURAL CHARACTER OF THE SITE.**

The site offers a unique opportunity on the edge of Cheltenham for people to enjoy the natural environment. The rugged terrain, with woodland, scrub and grassland, gives a feeling on wilderness, which is reinforced by limited signage and fencing. The public made it clear that they particularly enjoyed the “wild” character of the Hill and Common and did not want the site to be turned in to a “country park”.

**HEADLINE OBJECTIVE THREE****HO-3 TO ENCOURAGE RECREATIONAL PURSUITS TO TAKE PLACE IN A WAY THAT DOES NOT COMPROMISE THE CONSERVATION AND ENHANCEMENT OF AREAS OF NATIONAL SIGNIFICANCE.**

A wide range of recreational activities, from walking to para-gliding, take place on the site. There are areas that are suffering from recreational pressure, so the plan will seek to balance the effect of existing recreational uses against the important conservation objectives. In practice this will mean that there will be few limitations on the current recreational use of the site, indeed the plan should extend the overall opportunities and reduce conflicts between users.

**HEADLINE OBJECTIVE FOUR****HO-4 TO DISCOURAGE RECREATIONAL PURSUITS THAT COMPROMISE THE CONSERVATION AND ENHANCEMENT OF AREAS OF NATIONAL SIGNIFICANCE.**

There are some recreational activities that, if allowed to continue or increase in their popularity, will become incompatible with the conservation objectives for the site. These include off-road motorcycling and the use of 4 wheel drive vehicles. The plan seeks to prohibit these activities. Other activities, such as the use of barbecues and the lighting of fires, also need to be controlled. However, such activities could be allowed to continue in defined locations.

**HEADLINE OBJECTIVE FIVE****HO-5 TO ENABLE AND IMPROVE ACCESS FOR PEOPLE OF ALL ABILITIES.**

An extensive network of the paths crosses the site allowing access for walkers, cyclists and horses. Many are steep and a few are badly eroded. The plan will seek to improve the quality of the paths.

Due to the steep terrain there are few opportunities for people with disabilities to access the site. Due to the high conservation value and the naturalistic character of the site the creation of surfaced paths is considered to be inappropriate. However, the plan will seek to improve existing access routes for visitors in wheelchairs and present opportunities for future partnership working.

**HEADLINE OBJECTIVE SIX****HO-6 TO ENCOURAGE RESPECT FOR AND UNDERSTANDING OF THE IMPORTANCE OF THE SITE THROUGH THE PROVISION OF INFORMATION AND INTERPRETATION AND ENHANCEMENT OF EDUCATIONAL OPPORTUNITIES.**

Although the site is perceived by many to be a “wilderness”, it has actually been heavily and extensively managed by humans for thousands of years. Woodland and scrub is a relatively recent feature. The quarries are nationally important assets that reveal the development of ecosystems and the landscape over millions of years. The limestone grassland is one of the rarest and most rapidly declining habitats in the country.

The basis for an interpretative strategy will be presented with the aim of encouraging understanding and respect for the Hill. This will provide opportunities for lifelong learning and enable people to understand the rationale for management work.

**HEADLINE OBJECTIVE SEVEN.**

**HO-7 TO ENSURE THAT HEALTH AND SAFETY IMPLICATIONS FOR ALL ASPECTS OF SITE USE AND MANAGEMENT ARE FULLY CONSIDERED.**

The health and safety of visitors and people working on the site is paramount. There are numerous potential risks which need to be minimised. Negligence by the site managers and their agents, contractors or volunteers, can lead to prosecution and compensation claims. The plan will identify potential areas of risk, for which detailed risk assessment and health and safety action plans should be produced and implemented. It will also seek to minimise conflicts between different users.

**HEADLINE OBJECTIVE EIGHT.**

**HO-8 TO DEVELOP A PARTNERSHIP APPROACH TO THE MANAGEMENT OF THE SITE, IN PARTICULAR ENCOURAGING THE ACTIVE PARTICIPATION OF LOCAL PEOPLE AND INTEREST GROUPS IN SITE MANAGEMENT.**

With such a wide range of environmental interests and recreational opportunities on the Hill it is essential that a partnership approach is developed in decision-making and the achievement of objectives. The plan will identify potential partners - statutory agencies, voluntary groups, interest groups and individuals - who can offer the specialist advice, skills, funding and physical effort required to ensure that the plan is implemented.

Opportunities for the local community and other users to become actively involved in site management and decision making, to understand the needs of other users and to develop a 'sense of ownership' of the site will also be identified.

**HEADLINE OBJECTIVE NINE**

**HO-9 TO ENSURE THAT CONSULTATION IS AN INTEGRAL PART OF THE DECISION-MAKING PROCESS.**

In the light of the reaction to the recent geoconservation work and in tandem with Headline Objectives Six and Eight, consultation with statutory agencies, specialist voluntary groups and the general public should be an integral part of the decision making process. This will ensure that quality management decisions are made and

that potential conflicts between various environmental interests are minimised. Consultation with English Nature to undertake work within the SSSI and with English Heritage within the Scheduled Ancient Monument is a legal requirement.

# **ORGANISATIONAL AND OPERATIONAL MANAGEMENT RECOMMENDATIONS**

## ORGANISATIONAL AND OPERATIONAL MANAGEMENT RECOMMENDATIONS

### **OBJECTIVE OM-1**

**TO REVIEW THE MANAGEMENT AND ADVISORY STRUCTURES TO ENSURE THAT THERE ARE DEFINED RESPONSIBILITIES AND EFFECTIVE LINES OF COMMUNICATION.**

Leckhampton Hill and Charlton Kings Common is a complex site with an inherent range of complex issues and challenges. As a result the implementation of the management plan, a complex document in itself, requires robust and effective management, advisory and consultative structures to be in place. The site is very different from the urban and parks and open spaces that are managed by the Borough Council and as such different management mechanisms are required.

A range of organisations currently undertake valuable work on the Hill. They include

- Cheltenham Borough Council Park Ranger Service
- FOLK voluntary working parties
- BTCV work parties
- Community Service Volunteers
- The Cotswold Way Warden (“lengthsman”)
- Voluntary work parties from interest groups, such as the Gloucestershire Society for Industrial Archaeology
- Contractors

The current mechanism for co-ordination is through monthly meetings between Cheltenham Borough Council and the Executive Committee of the Friends of Leckhampton Hill and Charlton Kings Common.

It is recommended, as the most appropriate mechanism, that this process continues. However, in order to facilitate effective communication it is essential that the respective roles and responsibilities of Cheltenham Borough Council and FOLK are clarified.

- Cheltenham Borough Council (CBC) is the site owner and as such is responsible for all aspects of the use and management of the Hill and has

specific occupiers liabilities and responsibility for the health and safety of visitors and people working on site. They ultimately define appropriate and inappropriate activities and the nature and timing of management work. They need to balance the way the site is managed with Borough wide issues relating to recreation, leisure and conservation. Other sites within the borough compete for their time and funding.

- The Friends of Leckhampton Hill and Charlton Kings Common (FOLK) is an advisory group and representative body, made up of a range of interest groups and individuals who use and care about the Hill. As such it provides the primary mechanism for public consultation. It plays an essential role in helping CBC define the way that the site is managed and is a significant source of voluntary labour for site management. However, it has no power of veto over the decisions that CBC makes, but any work for which FOLK has concerns needs to be carefully considered prior a decision being made for its implementation.

A true sense of working together in partnership is essential for the approved management plan to be implemented successfully.

It is recommended that the following points should inform future work planning:

- Outline annual work plans, informed by the agreed site management plan, should be developed jointly, the detail of which should be developed through appropriate consultation prior to implementation. This does not preclude additional tasks from being undertaken as required, but they should not commence without prior approval by CBC and FOLK.
- Decisions should be informed by quality information.
- Sufficient time should be allowed to debate proposals.
- Expert organisations and individuals should be consulted where additional specialist knowledge is required eg English Nature, English Heritage and Gloucestershire County Council Archaeology Service.
- CBC and FOLK should be prepared to compromise, for example in the light of CBC's corporate responsibilities to the community or FOLK's expert knowledge of local conditions.

Although potentially problematic, the jointly agreed draft work programme should be made available for public scrutiny. An annual public consultation meeting hosted by FOLK where proposed management decisions can be explained is the recommended course of action. Following consultation the agreed work programme should be jointly published.

**OBJECTIVE OM-2**

**TO APPOINT A PROJECT OFFICER, SUPPORTED BY APPROPRIATE RANGER SERVICES, TO ENSURE THAT THE PLAN IS IMPLEMENTED AND THE DAY-TO-DAY MANAGEMENT OF THE HILL IS EFFECTIVELY CO-ORDINATED.**

Due to the complexity of the site, the need for close liaison with FOLK, hill users and statutory agencies, to translate the management plan into detailed annual work plans and also to improve the day-to-day management of the Hill it is strongly recommended that a project officer is appointed to co-ordinate the implementation of the plan. The approved management plan and subsequently developed detailed work programmes should guide the project officer's work, enabling site management to proceed with only major works needing to be referred back to the council.

Initially, consideration had been given to the appointment of a Hill Keeper or ranger, but as the plan has developed, the need for Cheltenham Borough Council to employ a multi-skilled project officer on an initial 3 year contract has been identified.

Specific skills required include:

Essential Criteria:

- A background in integrated countryside management
- Site management experience
- Securing external funding, including the submission of funding bids
- Partnership development
- Working with voluntary groups
- Excellent communication skills
- Excellent organisational skills
- Practical aptitude
- Tact and diplomacy

#### Desirable Criteria

- Ideally the project officer should also have a working understanding of limestone grassland management and the ecological processes involved.

This is an important appointment and needs to attract the right candidates. An attractive salary (minimum Local Authority Scale 7) is essential. Funding (3 years) for such a post is available on a discretionary basis via the New Opportunities Fund Wildspace Scheme. As the plan is for a 5 year period, consideration needs to be given to a contract extension following the cessation of external funding to ensure that the initial phase of the management work is seen to a conclusion.

Although a CBC appointment, the selection of the post holder should involve FOLK.

A steering group, based on the steering group for the development of the management plan, should be established to monitor the implementation of the plan.

A key challenge for the project officer will be to establish appropriate ranger services for the Hill. One or a combination of the following is recommended, the selection of which is dependant upon funding:

- Increasing the on-site presence of the CBC rangers
- Appointment of paid part-time rangers
- Establishment of a voluntary ranger service

#### **OBJECTIVE OM-3**

**TO DEVELOP AND SEEK APPROVAL OF BYLAWS, INCLUDING DOG FOULING BYLAWS, TO ENSURE THAT THE USE OF SITE CAN BE EFFECTIVELY REGULATED AS REQUIRED.**

A ranger presence on the Hill serves many purposes, from practical management to educational work. An important role is to ensure that conflicts between various user groups, vandalism and damage to important environmental assets caused by inappropriate use are minimised. The project officer and rangers should seek to reduce problems through active management, education and persuasion. However, the back up of site bylaws is a useful tool that defines inappropriate uses and can be used, as a last resort, to discourage persistent offenders.

Cheltenham Borough Council already has bylaws for the parks and open spaces that it manages and it may be possible to modify them for use on site. However, local authority bylaws, once drafted, require Home Office (Secretary of State) confirmation. This can be a lengthy process.

Model Byelaws Set Number Two: Pleasure Grounds, Public Walks And Open Spaces can be found at:

<http://www.local-regions.odpm.gov.uk/byelaws/byelaw2/download/model2.doc>

Arrangements for Confirmation of Local Authority Byelaws can be found at:

<http://www.homeoffice.gov.uk/circulars/1996/hoc9625a.htm>

Fouling by dogs is addressed by the Dogs (Fouling of Land) Act 1996. However, Section 1 (3) (c) states that “the Act does not apply to common land to which the public are entitled or permitted to have access otherwise than by virtue of section 193(1) of the Law of Property Act 1925 (right of access to urban common land).”

The public are *not entitled* to access over any of the Registered Common Land on Leckhampton Hill and Charlton Kings Common, although, access *is* permitted. Therefore it appears that dog-fouling bylaws can not be applied to any of the common land. However, fouling bylaws *can* be applied to public rights of way, therefore, as all rights of way are excluded from the Commons Register, the Dogs (Fouling of Land) Act could be applied. Furthermore, the Act could also be applied to Daisybank Fields, as they are not included on the Commons Register.

Legal opinion will need to be sought on the imposition of local authority bylaws (as their imposition on common land may also be restricted) and the implementation of Dog (Fouling of Land) Act. If it is not possible, then a voluntary code of conduct should be developed and implemented. The only difference between this and formal bylaws is that they can not be enforced by a fine.

**OBJECTIVE OM-4**

**TO ENSURE THAT REASONABLE CARE IS TAKEN FOR THE HEALTH AND SAFETY OF VISITORS AND PEOPLE WORKING ON SITE.**

The health and safety of people visiting or working on the site should be given the highest priority.

It will not be possible to eliminate all the inherent risks, particularly those associated with the quarries. However, it must be demonstrated that reasonable care for peoples' health and safety is being taken at all times.

All potential risks should be addressed through a process of formal Risk Assessment. See Appendix 14 for a summary of the requirements of a risk assessment.

Risk Assessments have been produced for various activities that take place on site. However, this is the first phase of risk management and must be followed by implementation of 'risk control' measures.

It is recommended that the full range of potential risks are identified, assessed and risk control measures are implemented.

The main area of immediate concern is the safety fencing erected at the tops of the quarries on western end of Leckhampton Hill. This fencing is in a very poor state of repair and requires immediate replacement. Although consent for fencing may be required as the site is, in the main, Registered Common Land, the grant of consent may be over-riden by the Mine and Quarries Act, where fencing is a requirement.

**OBJECTIVE OM-5**

**TO PROVIDE INFORMATION, INTERPRETATIVE AND EDUCATIONAL MATERIAL TO IMPROVE APPRECIATION, UNDERSTANDING AND ENJOYMENT OF THE SITE.**

**Interpretation**

The provision of information, interpretation and educational material increases the public's enjoyment of the site. It also increases understanding and enables people to understand why particular management decisions have been made.

Recommendations for the provision of access information are detailed in the Access and Recreation Section. This section deals with the provision of educational and interpretative material.

To interpret is defined as “to explain the meaning of, to translate into intelligible or familiar terms”.

The basic interpretation strategy for Leckhampton Hill and Charlton Kings Common - the reasons for providing interpretation - should be to

- Highlight the nationally important environmental assets
  - Limestone Grassland
  - Geological Exposures
  - Scheduled Ancient Monument
- Help people identify them on the ground
- Explain why they are important
- Explain how they are being managed for the benefit of future generations

It is recommended that a detailed Interpretative Strategy is developed in consultation with specialist agencies and interest groups.

Three forms of interpretation are recommended:-

- **Site Guide** (also see Access and Recreation Recommendations)  
The guide should have a dual function, the provision of access information as well as achieving the key elements of the interpretation strategy.
- **Information Panels** (also see Access and Recreation Recommendations)  
Existing information boards should be replaced with new panels of a consistent style and design. New panels should be located in the car parks and at main access points to deliver the key interpretative messages on all aspects of the site. These also double as access information points and should be based around a site map.

- **On-site Interpretation Panels**

Focussing on specific aspects of the site, these should be more thorough in the interpretative information that they provide. The intention for the site is to keep signs and panels to a minimum. Therefore only the key sites will be interpreted, where it is essential that the national significance of a feature or the reasons for the management of an area require explanation. The panels should be of a consistent style and design and could be linked together to form an interpretative trail, the route of which should be highlighted in the Site Guide and on the car park information panels.

Suggested locations and subject matter for panels are:

- Leckhampton Camp - hillfort, barrow and limestone grassland.
- Devil's Chimney and Dead Man's Quarry - geological exposures.
- Lower Limekilns Quarry - geological exposure, limekilns and inclines.
- Edge of Charlton Kings Common - limestone grassland and management.

The specific positions of panels should be agreed on site, taking obtrusiveness, obstruction, environmental considerations and ground conditions into account.

The design of the panel should be informed by the BT Countryside for All Standards and Guidelines, published by British Telecom and the Fieldfare Trust.

## **Education**

The site is an excellent educational resource as it offers a huge range of options for study - ecology, geology and geomorphology, archaeology, recreational patterns etc.

The reasons for wanting to provide educational opportunities need to be carefully considered. The benefits of increasing appreciation for the site need to be balanced against the time taken to prepare and conduct guided visits and other educational material. The target age groups also need to be considered. Guided site visits, particularly those that are linked to the National Curriculum, require substantial preparation and take time away from other tasks. High quality educational experiences generate increased demand. On similar sites, where education is heavily promoted, educational work can take up to 50% of staff time during term time.

As the conservation and restoration of the environmental assets is the key priority for the site, educational work should be targeted at local schools where the site will benefit from increased local appreciation and understanding.

In order to extend the educational use of the site beyond local schools it is recommended that an Education Pack is produce to enable self guided visits.

**OBJECTIVE OM-6  
TO MAXIMISE THE OPPORTUNITIES TO ATTRACT EXTERNAL FUNDING FOR  
SITE MANAGEMENT.**

The current management structure, coupled with the various environmental designations, make the site particularly attractive to external funding.

Many funding streams are very specific about the type of organisation that is eligible to receive funding. Consequently FOLK, as a voluntary community organisation, are able to apply for funding that Cheltenham Borough Council, as a local authority, is not. The reverse also applies, an example of which is the National Lottery funded Wildspace Scheme, which is available to local authorities for the acquisition and management of Local Nature Reserves.

In order to extend opportunities to attract external funding the following are recommended

- Develop formal partnerships with other organisations (eg National Star Centre to improve access for people with disabilities).
- FOLK to investigate charitable status.
- CBC, in consultation with English Nature, to declare the whole site, including Daisybank Fields, as a Local Nature Reserve.

Potential partners and funding streams are identified where relevant against the specific recommendations in subsequent sections.

**Summary of Organisational and Operational Management Recommendations  
(ROM-01 - ROM-20)**

- ROM-01 Maintain current management co-ordination mechanism.
- ROM-02 Clarify roles of responsibilities (CBC and FOLK).
- ROM-03 Allow sufficient time for the development of work programme.
- ROM-04 Explain annual work programmes to the public.
- ROM-05 Publish agreed annual work plans.
- ROM-06 Appoint project officer to co-ordinate implementation of the plan.
- ROM-07 Involve FOLK in selection and steering of project officer.
- ROM-08 Establish management plan steering group.
- ROM-09 Establish ranger services on site.
- ROM-10 Seek legal opinion on the establishment of local authority bylaws.
- ROM-11 Seek legal opinion on the implementation of the Dogs (Fouling of Land) Act.
- ROM-12 Consider a voluntary code of conduct for the use of the site.
- ROM-13 Identify and assess health and safety risks.
- ROM-14 Implement risk control measures.
- ROM-15 Develop an Interpretative Strategy.
- ROM-16 Target educational work on local schools.
- ROM-17 Produce Education Pack to enable self guided visits.
- ROM-18 Develop partnerships with specialist organisations.
- ROM-19 Declare the whole site a Local Nature Reserve.
- ROM-20 FOLK to investigate charitable status.

# **LANDSCAPE RECOMMENDATIONS**

## LANDSCAPE RECOMMENDATIONS

The site lies on the edge of the Cotswolds Area of Outstanding Natural Beauty (AONB), one of the finest landscapes in England, and the Plan seeks to ensure that the future management of Leckhampton Hill and Charlton Kings Common contributes to the achievement of the Cotswolds AONB Management Strategy. The Cotswolds AONB is a statutory designation with the primary aim of conserving and enhancing the “rich natural heritage, the cultural legacy and the unique sense of physical harmony”. Cheltenham Borough Council, as a public body, has a duty under the CROW Act to have regard to the purposes of the designation.

Regular visitors enjoy the open, semi-natural character of the site, describing it as “wild” or “wilderness”. The feeling of wilderness is influenced by the rugged terrain, the range of semi-natural habitats, the presence of relatively few signs and fences, the lack of buildings and little or no regulation of how they can use the Hill.

The Plan seeks to maintain the open, semi-natural character of the site, within the constraints of other objectives, in particular the need to conserve nationally significant environmental assets, such as the limestone grassland, the geological exposures and the protected archaeology. It also seeks to improve opportunities to enjoy the site and the opportunity it provides for enjoying the wider landscape.

The maintenance of the open, semi-natural character of the site and the maintenance of views of the surrounding landscape will not, in the main, require specific landscape and visual character related actions. These will be achieved through the sensitive implementation of the biodiversity, geodiversity, historic environment and recreation related management recommendations outlined subsequently in the plan.

### **OBJECTIVE LV-1**

#### **TO OPEN UP VIEWS OF KEY FEATURES ON THE SITE.**

Careful consideration needs to be given to the benefits of opening up distant and intimate views of key features on the site, as such actions could conflict with other objectives for the site, exacerbate existing problems and create new problems, such as health and safety, access and erosion.

The following are considered to be the key features that require attention

- Devil's Chimney
- Geological Exposures
- Inclines and Tramroads
- Buildings associated with former quarrying operations
- Hillfort ramparts

Opening up views essentially involves the removal of scrub and occasional trees and will in most cases this will benefit other objectives for the site, particularly the limestone grassland restoration.

Specific recommendations prescribed to achieve biodiversity, geological and the historic environment objectives, but will also improve the views of key features, are included in the subsequent sections. However improving the views of the Devil's Chimney warrants specific attention.

The Devil's Chimney is the most prominent feature on the site. Restoration of the grassland on Leckhampton Hill will improve views from below. Although the view from above is not obscured, the current state of the safety fence detracts from its setting. The safety fence should be replaced with an attractive wooden post and rail fence as a priority. An interpretation panel could be incorporated in to the design of the fencing.

**OBJECTIVE LV-2**

**TO MAINTAIN THE OVERALL APPEARANCE OF THE SITE WHEN VIEWED FROM CHELTENHAM, LECKHAMPTON AND THE WIDER COUNTRYSIDE.**

The appearance of the Hill, when viewed from medium to long distances, is influenced by the extent and form of the habitats described above, coupled with that of the geological exposures. The extent of the woodland and grassland are the major influences.

The recommended management in subsequent sections prescribes the removal of large areas of scrub on the grassland, limited scrub removal in the vicinity of selected geological exposures, but does not prescribe major work in the woodland

area. These actions will result in the maintenance of the overall appearance of the site.

Removal of scrub on the grassland and in the vicinity of the geological exposures should not leave regular sided blocks, which will create unnatural straight lines in the landscape. The key to the maintenance of a naturalistic appearance is the retention of small areas of light scrub and individual trees on the margins of scrub/ woodland blocks will soften transition from one habitat to the next.

**OBJECTIVE LV-3  
TO CONSERVE AND ENHANCE FEATURES THAT CONTRIBUTE TO THE  
CHARACTER OF THE SITE.**

In addition to the semi-natural habitats, geomorphology and the topography, the character of the site is also influenced by man-made features of ancient and more recent origin, in particular the earthworks and dry stone walls.

Recommendations to conserve and enhance these features are included in the Historic Environment Section.

**Summary of Landscape Recommendations (RLV-01 - RLV-02)**

The main recommendations appear in the sections on Biodiversity, Geodiversity and the Historic Environment Recommendations.

- |        |   |
|--------|---|
| RLV-01 | Improve the setting of the Devil's Chimney through the replacement of the safety fence. |
| RLV-02 | Ensure that scrub clearance leaves a naturalistic transition between habitats.          |

# **BIODIVERSITY RECOMMENDATIONS**

## **BIODIVERSITY RECOMMENDATIONS**

Leckhampton Hill and Charlton Kings Common are designated as a Site of Special Scientific Interest principally on account of the unimproved limestone grassland and for the presence of nationally scarce plants and invertebrates.

Daisybank Fields lies outside the SSSI, but provides a valuable habitat for breeding birds.

A considerable amount of biological information exists for the SSSI, but much of the recording has not been systematic. Therefore although a huge variety of species are known to occur (or have previously occurred) on the site, it has been difficult to pinpoint many to specific locations.

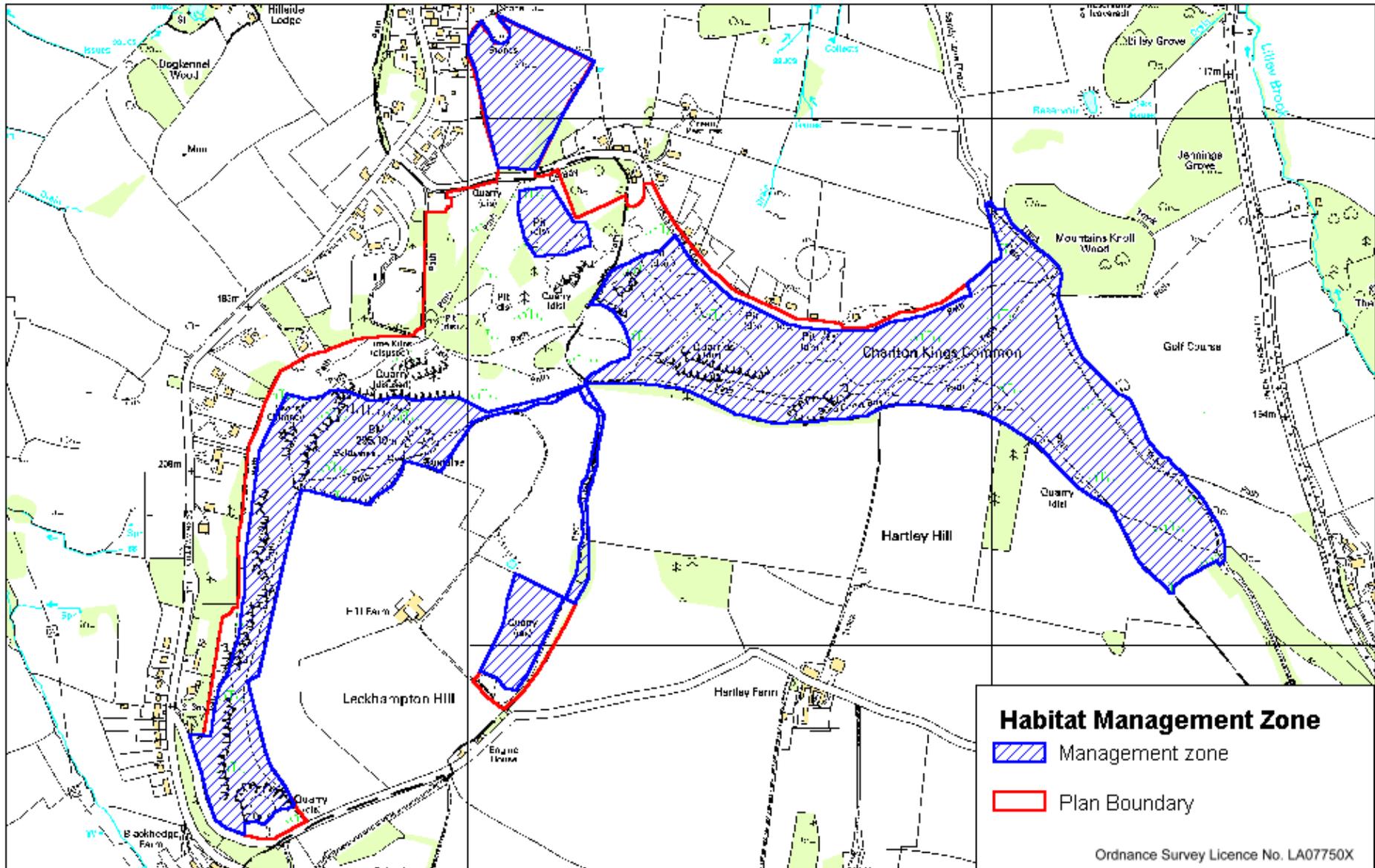
The main habitats are limestone grassland, woodland and scrub. Consideration has been given to the relative priority for action to conserve or restore each habitat.

Prioritisation has been based on:

- The relative importance of the habitat, particularly in a national context.
- Fragility - how susceptible the habitat is to change (deterioration) in the short term.
- Condition - whether or not the habitat is currently in favourable condition.
- Potential for Restoration - the likelihood of successful restoration of the habitat to favourable condition, given the human and financial resource constraints.
- The timescale for the plan.

As this a 5 year rolling plan, it is recommended that only the most significant, fragile and threatened habitats are tackled. This will enable site managers to concentrate on the immediate priorities.

The priority is the major task of conserving and restoring the unimproved limestone grassland and associated scrub habitats. Blocks of mature woodland are excluded from immediate action due to their robustness. The map below shows the extent of site that should be the subject of active habitat management over the next 5 years - the Habitat Management Zone. Management of the quarries as proposed in the Geodiversity Recommendations section and clearing of selected inclines,



proposed in the Historic Environment Recommendations, which take place outside the habitat management zone, will also have nature conservation benefits. Detailed habitat management prescriptions are not identified for these areas, however full account of the biodiversity of these areas must be taken.

### **Management and Restoration of Limestone Grassland**

#### **OBJECTIVE B-1: LIMESTONE GRASSLAND**

**B-1.1 TO MAINTAIN THE UNIMPROVED LIMESTONE GRASSLAND CURRENTLY IN FAVOURABLE CONDITION AND PREVENT FURTHER DETERIORATION.**

**B-1.2 TO RESTORE AREAS OF LIMESTONE GRASSLAND IN UNFAVOURABLE CONDITION THROUGH APPROPRIATE MANAGEMENT, INCLUDING SCRUB CLEARANCE.**

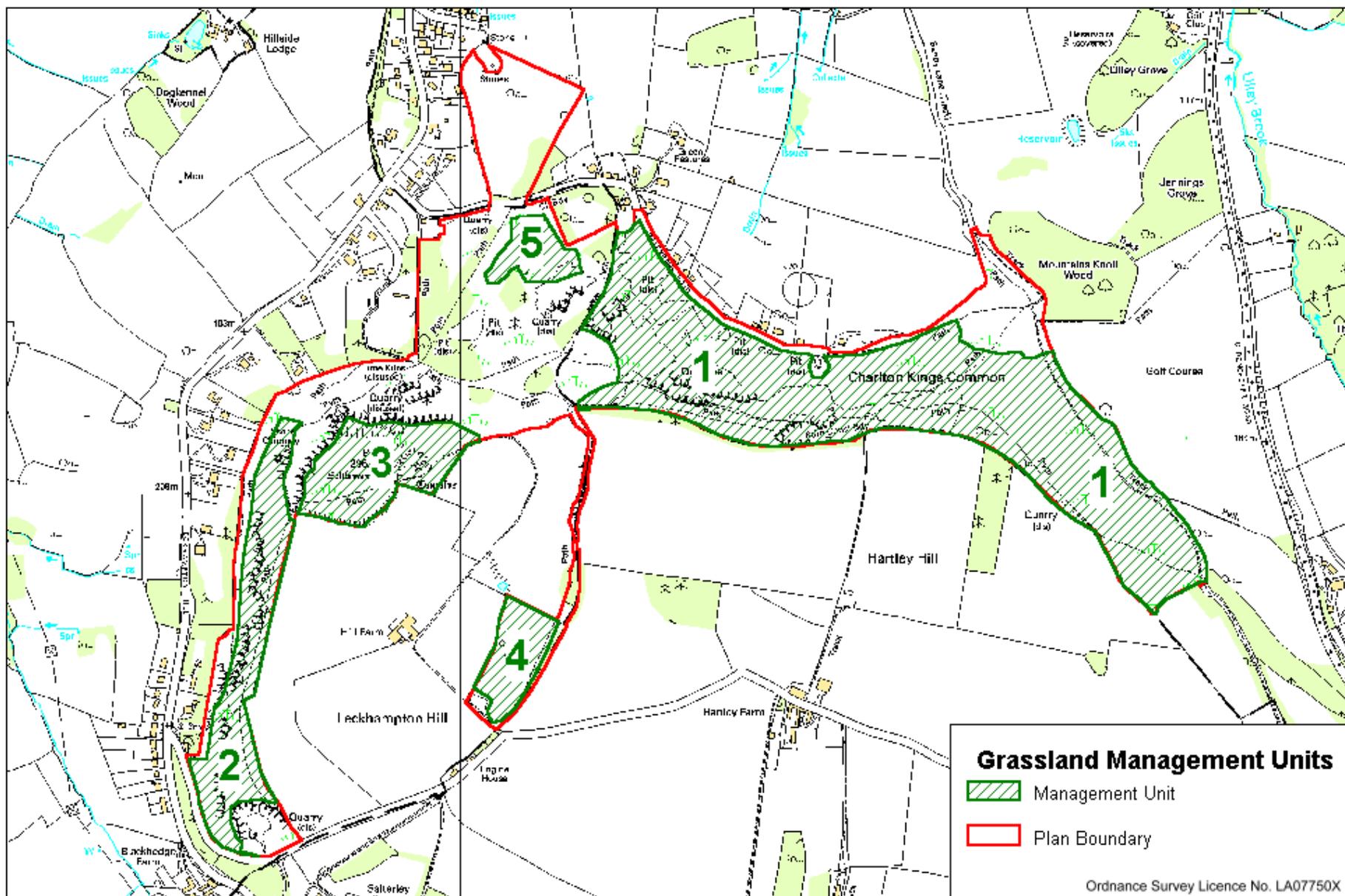
The key areas for grassland management and restoration are as follows

- The west of Leckhampton Hill
- Leckhampton Camp
- Charlton Kings Common
- Brownstone Quarry
- The area of grassland lying within the main area of woodland

The 5 grassland management units are outlined on the map below.

A hierarchical management approach is recommended

1. To maintain the existing extent of limestone grassland, currently in favourable condition, and prevent further encroachment of scrub.
2. To restore areas of limestone grassland where there is light scrub encroachment and create links to encourage species dispersal.
3. To undertake a limited experimental programme of management in an area that is heavily scrubbed to determine the potential for the restoration of the limestone grassland to favourable condition.



The main form of active grassland management carried out at present is mowing, which takes place on the Leckhampton Hill plateau, and, recently, on the western end of the Charlton Kings Common plateau. Smaller areas are strimmed. Where mowing takes place on Leckhampton Hill the grassland is in favourable condition. However, mowing, as opposed to grazing, can lead to a change in the plant communities in the long term and would not suit some of the typical Cotswold grassland fauna. Therefore it would not be appropriate for the whole of the site even if it were possible. Scrub is becoming increasingly dominant on the uncut areas. The recently mown area on Charlton Kings Common demonstrates that scrub removal can immediately benefit the limestone grassland, but bramble is already returning.

It is recommended that the current management regime remains in place during year one of the implementation of this Plan. However, if the current regime remains in place for longer then scrub encroachment elsewhere on the site will lead to a gradual reduction in the overall extent of limestone grassland. Therefore, to achieve the objective, a more extensive and sustainable management regime must be established.

Potential management options include

- Burning
- Mowing
- Grazing
- A combination of the above techniques

The main costs and benefits of each management method are outlined below.

<b>Mowing/Hay Cropping</b>	
<b>Benefits</b>	Does not conflict with other uses of the site
	Does not require fencing
	Results in attractive 'flowery' sward until cut
<b>Costs</b>	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 eg 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

<b>Burning</b>	
<b>Benefits</b>	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
<b>Costs</b>	Can only be undertaken in small areas
	Needs to 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

<b>Grazing</b>	
<b>Benefits</b>	Traditional form of management for Cotswold grassland management
	Not dependant 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
<b>Costs</b>	Suitable stock can be difficult to source
	Requires fencing
	Stock require the provision of drinking water
	The health of stock needs to continuously monitored
	Potential conflict with other users, particularly dogs

The selection of an appropriate long-term management regime is complicated by public access and the fact that much of the site is Registered Common Land (for which DEFRA should be consulted over the need for consent for the erection of temporary fencing). Despite this, as the primary objective is “to conserve and

enhance areas of national significance (SSSI, SAM) ... the protection of designated national assets taking precedence over all other management objectives”, a grazing management regime offers the greatest opportunity for the management and restoration of the limestone grassland in the long term.

Although the long-term solution is grazing, it is recommended that a limited grazing regime should be initially introduced with the remainder of the site being managed basically as it is at present, but with an increased emphasis on the removal of scrub. In areas identified for the introduction of grazing it may still be necessary to undertake cutting in order to control regenerating scrub. It is important to note that an application for consent to erect fencing can take a long time to process (up to 2 years), therefore introduction of grazing is only a realistic option for implementation in year two of the plan at the earliest.

The table summarises the recommended short-term management regime (subject to consent being obtained for fencing).

<b>Summary of Recommended Short Term Management Regime</b>	
<b>Area</b>	<b>Recommended Management</b>
1. Charlton Kings Common	A combination of grazing and cutting
2. Western end of Leckhampton Hill	Mowing and removal of arisings
3. Leckhampton Camp	Mowing and removal of arisings
4. Brownstone Quarry	Limited mowing (strimming) and removal of arisings as required
5. Area within woodland	Mowing and removal of arisings

### **Implementation of grazing management**

It is recommended that grazing is introduced on Charlton Kings Common. The indicative area for the implementation of grazing, covering around 22 hectares of land, is outlined on the map below. However, there are four important issues that need to be resolved prior to the introduction of grazing

- Public concern/perception
- The selection of appropriate stock
- The availability of appropriate stock
- The need to fence



### **Public concern/perception**

The introduction of grazing and the need to fence is likely to meet some public opposition, particularly because people will regard fencing as detracting from the naturalistic character of the site and a barrier to access and because dogs are often required to be under very close control when stock are present. In practice on similar sites, such as Crickley Hill, fencing has not become a visual intrusion (temporary fencing can be sensitively located to minimise visual impact and to avoid conflicts with rights of way and other paths) and the presence of stock has made no difference to the way people exercise their dogs (the cattle are generally unaffected by the dogs' presence).

The introduction of a grazing regime needs to be carefully planned in terms of awareness raising, pointing out the importance of the limestone grassland, the need for its management and how the grazing regime will actually work. This can be carried out as part of the consultation involved in obtaining consent to fence.

### **Stock selection and availability**

Several types of grazing animals are used for conservation management - sheep, cattle, goats, and ponies. The appropriate selection needs to consider the terrain, possible conflicts with people and how long the stock will remain on site.

Cattle grazing is the recommended option, using breeds such as the Dexter, Welsh Black or Belted Galloway. These breeds are suited to the terrain and mix well with people and dogs. Cattle are already being used by English Nature and the National Trust for the management of similar commons in the Cotswolds, including Rodborough Common, Crickley Hill, Barrow Wake, Cranham Common and Sheepscombe Common.

The Cotswolds AONB team have recently been awarded funding from the Heritage Lottery Fund for the conservation of limestone grassland in the Cotswolds (See Appendix 15 for indicative costings for the introduction of grazing on the Leckhampton Hill and Charlton Kings Common) This includes provision for the appointment of a Grasslands Officer and the establishment of a 'flying herd' of suitable cattle. The use of the flying herd is not the only solution, which could involve a partnership with a local farmer who can provide suitable stock and alternative off-site grazing at times when conditions on the Hill are

unsuitable. The AONB team has indicated that Leckhampton and Hill and Charlton Kings Common lie within its target area for grazing trials. Therefore it is recommended that a detailed prescription (including the number of cattle and the timing of grazing) is developed in consultation with the AONB Grasslands Officer and that opportunities for a partnership with a local farmer/farmers are investigated.

### **Fencing**

Stock will need to be contained on the site. No permanent fencing is recommended, instead temporary electric fencing should be used to enable grazing to be concentrated in small, defined areas and prevent access conflicts. Temporary fencing can be moved around the site as required, indeed it will enable more than one area to be managed at one time.

### **Consent for fencing**

The erection of fencing or carrying out of other works on common land is regulated by Section 194 of the Law of Property Act 1925 (the 1925 Act). Under this provision the consent of the Department for Environment, Food and Rural Affairs (DEFRA) must be obtained for fencing (including temporary fencing) or works which would prevent or impede access to common land. It is recommended that DEFRA be consulted at an early stage to determine the requirements for fencing consent.

There are a number of public rights of way crossing the site. Those lying within Tewkesbury District are managed by the Rights of Way Team (the Highways Authority) at Gloucestershire County Council, and those within Cheltenham are managed by the Borough Council under an agency agreement (although the extent of the agency agreement within parishes that lie within Cheltenham Borough is unclear). Initially Gloucestershire County Council should be consulted over proposals to erect temporary fencing and associated stiles and gates, although as there are no proposals to cross rights of way the County Council are unlikely to have a view.

### **Future Extension of the Grazing Management Regime**

Grazing management is considered to be the most effective method of achieving the conservation and restoration of the unimproved limestone grassland across the site and the regime should be extended across the site at the earliest possible

opportunity, subject to the success of the trials. Priority areas are outlined in the Biodiversity Work Programme later in this section of the plan.

### **Scrub Management**

The introduction of a grazing regime should check the further encroachment of scrub on Charlton Kings Common. However, where scrub is already established or where further encroachment occurs, it will be necessary for it to be managed. Due to the extent of scrub on Charlton Kings Common substantial reduction could take many years, therefore grazing should be introduced as a priority followed by an ongoing programme of scrub removal.

The selection of areas of scrub for removal should follow the hierarchical approach outlined at the beginning of this section, namely

1. To restore areas of limestone grassland where there is light scrub encroachment.
2. To reduce and diversify the margins of heavily scrubbed blocks.
3. To undertake a limited experimental programme of management in an area that has been heavily scrubbed to determine the potential for the restoration of the limestone grassland.

More detailed recommendations are included in the Biodiversity Work Programme at the end of this section.

The management of heavily scrubbed areas should be undertaken during the winter months to avoid disturbance to breeding birds, with the cut stumps being treated with a suitable herbicide to prevent regrowth. In the short term, and where possible, regular mowing and removal of cut material should be undertaken to deal with light scrub generation (eg the recently cleared bramble area at the western end of Charlton Kings Common). In some areas it will also be possible to pull young scrub, with minimal ground disturbance.

#### **OBJECTIVE B-2**

**TO MANAGE SCRUB AS A HABITAT IN ITS OWN RIGHT FOR THE BENEFIT OF BREEDING BIRDS AND INVERTEBRATES.**

It should be noted that scrub is valuable in its own right, providing a habitat for a variety of invertebrates (notably Duke of Burgundy which requires a light scrub grassland matrix) and birds (notably tree pipit and grasshopper warbler). It is recommended that some areas of heavy scrub, light scrub and some individual trees and bushes should be retained.

Different birds have different habitat requirements, particularly if breeding is to be successful. Some require relatively heavy scrub and others a much lighter scrub cover. A matrix of scrub habitats should be created, varying from 25 - 75% canopy cover and involving edge scalloping and the creation of rides and glades within the blocks.

Linked scrub blocks should be retained to enable mobile species to move through the landscape and to provide shelter, nesting and roosting places. It is important that individual bushes are retained as song posts for tree pipits on the steep slope of Charlton Kings Common.

### **OBJECTIVE B-3**

#### **TO IMPROVE THE STRUCTURE OF THE WOODLAND INCLUDING THE CREATION OF GLADES AND "RIDES".**

Management of the main woodland block has not been identified as a priority during the 5 year plan period, to enable site managers to concentrate their efforts on the restoration of the limestone grassland. However, improvements to the woodland will be achieved through path management and work to uncover the tramroads and inclines, recommended elsewhere in the Plan.

Recommended management for the grassland in the large woodland glade is included in the Biodiversity Work Programme at the end of this section.

The key section of woodland is at the foot of Charlton Kings Common, effectively an extension to Mountains Knoll Wood. This area is home to a number of shade loving species and the glades provide important habits for butterflies. It is recommended that the glades are maintained as open grassland through a regular programme of scrub removal and coppicing as required.

**OBJECTIVE B-4 MONITORING:**

**B4.1 TO IDENTIFY INDICATOR SPECIES AND ESTABLISH AN ONGOING RECORDING AND MAPPING PROGRAMME TO MONITOR THE EFFECTIVENESS OF HABITAT MANAGEMENT.**

**B4.2 TO IDENTIFY NATIONALLY SCARCE SPECIES THAT DO NOT RESPOND TO TYPICAL MANAGEMENT PRESCRIPTIONS AND DEVELOP MANAGEMENT STRATEGIES FOR THEIR CONSERVATION.**

**B4.3 TO ESTABLISH AN ONGOING RECORDING PROGRAMME FOR KEY HABITATS INCLUDING A FIXED POINT PHOTOGRAPHIC RECORD AND HABITAT MAPPING.**

Monitoring is a vital part of the management process. It enables site managers to determine the success of past actions and identifies areas where management prescriptions should be altered to rectify undesirable changes in the state of the habitats and species populations.

A number of species have been identified as being of particularly importance

- Birds - Tree pipit, grasshopper warbler
- Butterflies - Duke of Burgundy, chalk-hill blue, small blue
- Plants - musk orchid, greater butterfly orchid, fly orchid

It is recommended they are used as the initial suite of species indicators to monitor the effectiveness of management. It should be noted that species populations are affected by a range of conditions in addition to the state of the habitat, in particular seasonal variations and the complex life cycles of some species. Therefore, long-term trends, rather than annual fluctuations in a particular population, are the key test of management effectiveness.

The intention for this 5 year plan is to manage broad habitats rather than for particular species. No individual species have been identified as requiring a management regime that differs from that prescribed for extensive habitat management, which is designed to create a mosaic of grassland, scrub and woodland habitats which will suit a range of species. In the longer term (beyond the plan period), it may be appropriate to consider management for one or more individual species. It is recommended that only those species that have a significant

population on the site, compared to other similar sites in the area, should be selected.

This does not mean that important species, with very specific habitat requirements, are not present. Therefore it is essential that ongoing biological recording is undertaken and that records are collated in a systematic way.

It is recommended that all records are sent to the relevant county recorder and the Gloucestershire Environmental Data Unit (see Appendix 2 Useful Addresses) using the standard recording forms. It is important to define the exact location of the record, particularly if it is of a rare or scarce species. It would also be useful for site managers to develop a local recording system specific to the site.

The extent of broad habitats should also be monitored. English Nature has devised a methodology for determining the condition of calcareous grassland (See Appendix 16). A condition assessment should be undertaken at the end of the plan period to determine the effectiveness of management and restoration.

Fixed point photography, the taking of photographs from the same point season by season and year after year, will provide an invaluable record of management and allow gradual habitat changes, such as scrub encroachment, to be monitored over time.

**OBJECTIVE B-5  
TO IMPROVE WILDLIFE AND HABITAT INFORMATION AND  
INTERPRETATION.**

Recommendations for the provision of information and interpretation of wildlife and wildlife habitats are included in the 'Operational and Organisational Management Recommendations' section (Objective OM-5).

## **BIODIVERSITY WORK PROGRAMME**

### **NOTE**

- 1. Specific recommendations, including timing, stocking rates and locations of individual grazing enclosures, are not included in this section and should be developed in consultation with the AONB Grassland Officer.**
- 2. Timing of work (season/ year) to be outlined in the detailed action plan to be produced following approval of this plan.**

This section outlines the habitat management activities and outcomes over the period 2003 to 2007, the 5 year period of the plan.

The Habitat Management Units map (below) defines the areas which should be actively managed with conservation and enhancement of biodiversity as primary objective. The broad habitats map (below) identifies the locations of the numbered areas.

### **Management Unit A - Leckhampton Hill West**

(Comprising Areas 2, 3, 4, 5, 6, 7, 9, 10 and 11)

This area should be managed as a single unit, with the primary objective of conserving and restoring limestone grassland. The scarp slope (Area 3 & 9) and the scrub/coarse grassland blocks (within Area 4) on the plateau are the Priority One areas for the extension of the grazing regime, following grazing trials on Charlton Kings Common.

#### **Prescription**

Area 2 - Reduce scrub by 80% (scrub block to be retained to the south of Salterley Car Park).

Area 3 - Reduce scrub by 100%.

Area 4 - Reduce scrub blocks by 50%.

Area 5 and 6 - Reduce gorse scrub by 60%, leaving small scrub blocks for breeding birds.

Area 7 - No management required

Area 9 - Reduce scrub by 60-80% (retaining isolated scrub blocks where it is at its most dense). Scrub removal at the northern end of area 9 will open up views of the Devil's Chimney from below.

Area 10 - No management required.

### **Management Unit B - Trye's/Dead Man's Quarry**

(Comprising Area 11)

This area should ideally be regarded as an extension to Management Unit A. It has been included as a separate unit due to heavy use by mountain bikes and could be identified as a recreation priority area.

#### **Prescription**

Area 11. -Reduce scrub around Trye's Quarry by 80%. Retain scrub in Dead Man's Quarry.

### **Management Unit C - Leckhampton Camp**

(Comprising areas 12, 13 and 14)

This area should be managed as single unit with a hay cut (mowing and removal of arisings) in late summer/autumn, with the primary objective of conserving and restoring limestone grassland.

#### **Prescription**

Area 12 - Reduce scrub on southern rampart by 100% (see Historic Environment Objective HE-4). Initially retain scrub blocks in the centre of the Camp, but consult on their future removal (The Gloucestershire County Council Archaeology Service has recommended that they are removed).

Area 13 - Establish and maintain close grass, scrub free sward over the area of the barrow (this area can not be managed as part of the hay crop so should be managed strimming to reduce coarse grass and weed growth).

Area 14 - This area should be treated as an experimental plot as heavy scrub has recently been removed from this area. Monitor progress of grassland regeneration. Pull young saplings and treat older cut stumps with a suitable herbicide.

### **Management Unit D - Charlton Kings Common**

(Comprising Areas 18, 19, 20, 21, 22, 23, 24, 25, 26, 28, 30 and 32)

This area should be managed predominantly as a grazing unit (see 'Implementation of Grazing Management' section above), with the primary objective of conserving and restoring limestone grassland. Blocks of managed scrub/woodland to be retained for breeding birds, invertebrates and shade-loving plants. Regular mowing of the western areas of the plateau will suppress the regrowth of scrub in the initial stage of restoration.

### **Prescription**

Area 18 - Reduce scrub by 100%.

Area 19 - Recently cleared area. Mow at least once a year to suppress the regrowth of bramble.

Area 20 - Retain regenerating ash woodland.

Area 21 - Reduce scrub by 100%.

Area 22 - Reduce scrub by 80%, retaining small scrub blocks.

Area 23 - No scrub management required, retain scrub fringe. Grassland maintained by late summer mowing and removal of arisings.

Area 24 - retain scrub/ trees.

Area 25 - The main slope of Charlton Kings Common - gorse scrub becomes increasingly dominant from west to east. Reduce scrub by 90% retaining small, established blocks and occasional individual trees/shrubs. Scrub blocks to be primarily retained at the bottom of the slope. This is priority area for grazing.

Area 26 - Reduce extent of scrub by 50% and thin by 50%, leaving linked blocks of scrub with a 25 -75% canopy.

Area 28 - This area is suffering from heavy gorse encroachment. Introduce grazing in this area to prevent further scrub encroachment. Undertake a grassland restoration trial in a 0.5 hectare plot where scrub is heaviest, comprising the removal of 80% of the scrub leaving small isolated blocks and individual trees followed by grazing, and monitor success.

Area 30 - Reduce gorse component by 100%, other scrub woodland to be retained.

Area 32 - This area is suffering from heavy gorse encroachment. Introduce grazing in this area to prevent further scrub encroachment.

### **Management Unit E - Brownstone Quarry**

Comprising Area 35

This area should be maintained as open grassland and bare ground with scrub and trees on the margins.

### **Prescription**

Area 35 - Reduce scrub on the majority of quarry floor by 100%. Maintain the current extent of scrub blocks at southern end of quarry, but prevent further encroachment through grass cutting. Maintain a tree/ scrub fringe. This area

would benefit from the introduction of a limited period of light grazing following the initial grazing trial.

### **Management Unit F - Grassland area within woodland**

Comprising Areas 16 and 16a

These areas should be maintained as open grassland (with scrub blocks in area 16).

#### **Prescription**

Area 16 - Further scrub removal is not a priority, however the re-establishment of scrub should be avoided. An annual late summer regime of mowing and removal of arisings is recommended as an alternative.

Consideration should be given to the introduction of grazing to this glade following the grazing trial, but this may prove difficult as it could result in unacceptable access restrictions.

Area 16a. Maintain as open grassland (no immediate management required).

### **Management Unit G - Woodland/scrub/ grassland fringe on eastern boundary**

(Comprising Areas 27,29 and 31)

Scrub areas and glades to be managed as mixed grassland and scrub habitat particularly for the benefit of butterflies including Duke of Burgundy. More densely scrubbed/wooded areas to be managed for shade loving plants.

#### **Prescription**

Area 27 and 29. No specific management required.

Area 31 - Existing glades to be linked through the removal of scrub to create inter-linked grassland areas. Light grazing to be introduced to maintain open grassland habitat.

### **Management Unit H - Daisybank Fields**

**(Comprising Area 37)**

This area should be managed as a matrix of scrub and grassland.

#### **Prescription**

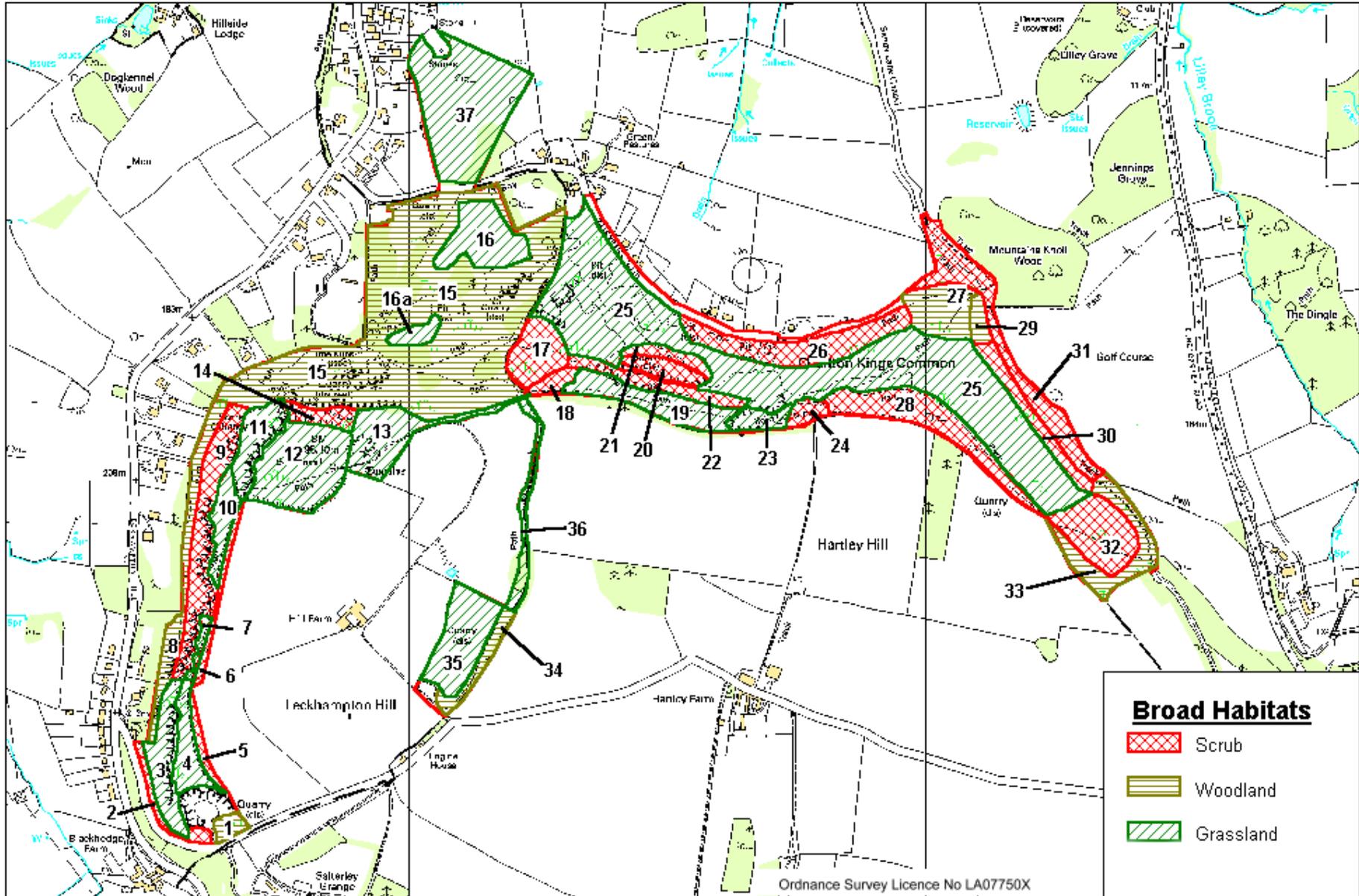
Area 37 - maintain current extent of grassland and scrub. The grassland should be cut in late summer and the arisings removed. Some areas of

grassland on the fringes and around selected scrub blocks should not be cut to provide habitat for small mammals and invertebrates.

**Summary of Biodiversity Recommendations (RB-14 - RB-14)**

- RB-01 Follow a hierarchical approach to grassland management to ensure the effective use of time and effort to maximise the area of grassland in favourable condition.
- RB-02 Cattle grazing is the favoured option to achieve long-term sustainable limestone grassland management.
- RB-03 Implement a cattle grazing regime on Charlton Kings Common.
- RB-04 Undertake public awareness raising campaign prior to implementation of grazing.
- RB-05 Continue mowing on the plateau to suppress the re-growth of scrub.
- RB-06 Exclude grazing animals from the woodland.
- RB-07 Consult DEFRA on the need for fencing consent on the Common Land.
- RB-08 Consult Gloucestershire County Council over fencing proposals.
- RB-09 Prevent further scrub encroachment.
- RB-10 Retain some blocks of scrub and individual trees for birds and invertebrates.
- RB-11 Maintain glades in woodland areas.
- RB-12 Monitor key species.
- RB-13 Undertake periodic grassland condition assessment.
- RB-14 Develop a fixed-point photographic record.





# **GEOCONSERVATION RECOMMENDATIONS**

## **GEOCONSERVATION RECOMMENDATIONS**

Leckhampton Hill has been designated as a Site of Special Scientific Interest, in part because the geology and geomorphology is of national significance.

Two reports on the geology of the site were prepared by the specialist geological consultants, Geode, in November 2001.

The first, 'The Geodiversity Aspects of Leckhampton Hill SSSI', described and evaluated the complex geology of Leckhampton Hill, concentrating on the exposures and the second, The Geoconservation Programme for Leckhampton Hill SSSI, put forward a prioritised programme for geological conservation work.

Implementation of the Programme commenced in March 2002, with works taking place in the lower Limekilns Quarry and in Dead Man's Quarry. Despite the valuable nature of the works, the operations rapidly became the subject of local opposition and debate, most notably in a series of features and letters in the local press. Although the impact on botanical and ornithological interests were first checked by English Nature and protected species by Cheltenham Borough Council, lessons need to be learned from the first phase of implementation, particularly in respect of methods of working and consultation with local people and other interest groups.

Both reports were written predominantly from the geologists' point of view point (which was the consultants brief). However, to ensure that the nationally important exposures are conserved and made available for educational purposes the objectives for geology and geomorphology must be evaluated against other key aspects.

Development of revised objectives has involved the consideration of the:

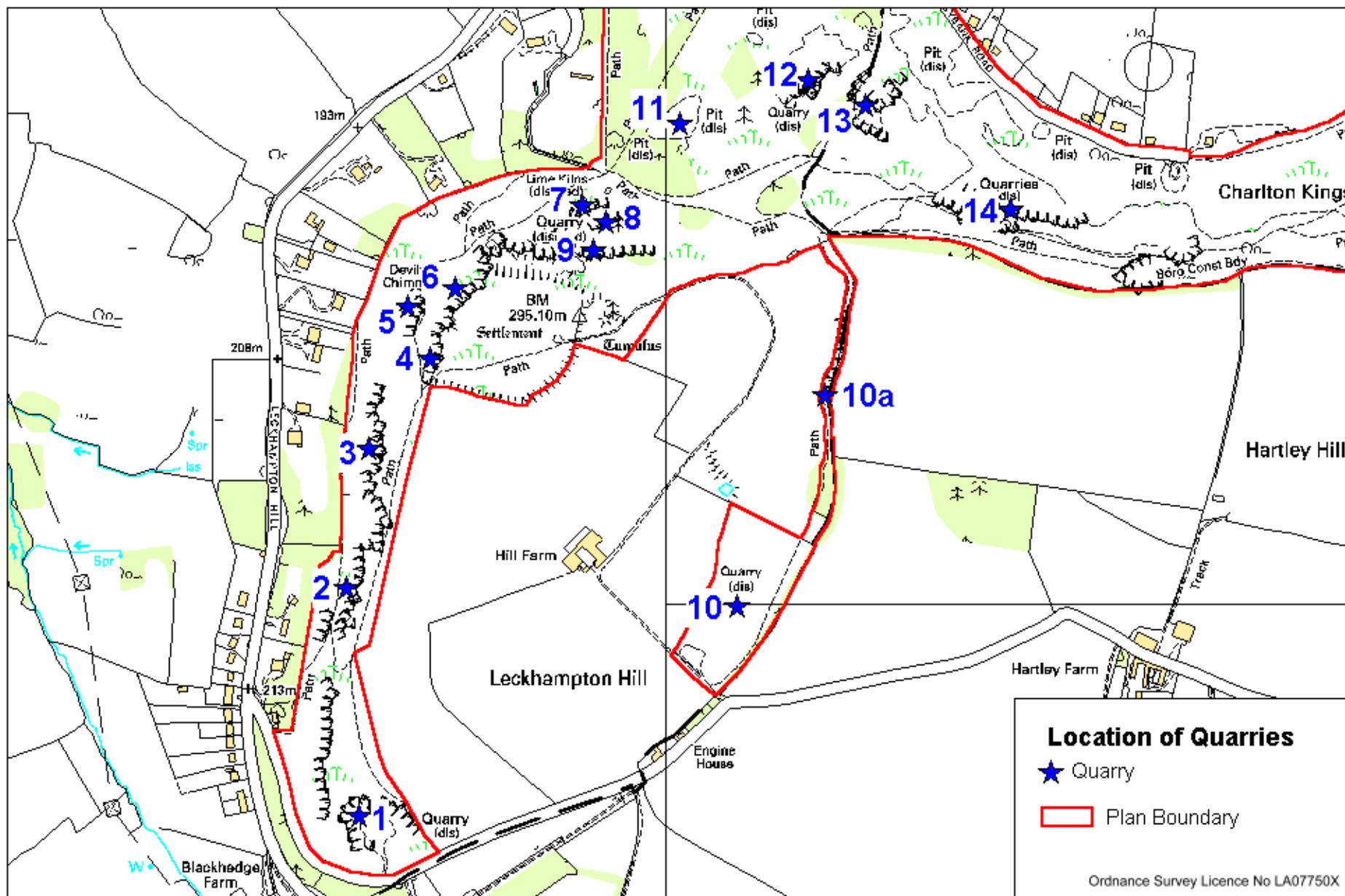
- National significance of the geological exposures
- Biological interest of the quarries
- Public sensitivity to major works on the Hill
- Lack of information available to the public to enable the formation of informed opinion
- The potential scale of the work
- Health and safety considerations

Geode defined the following priorities, based on a balance of the geological importance and the condition of each exposure. They proposed that work on Priority One and Two exposures should be completed by the end of 2003, with work on Priority Three sites taking place from 2004 onwards.

<b>Priority One</b>	Dead Man's Quarry (6)
	Lower Limekilns Quarry (named Limekilns Quarry in the Geoconservation Reports) (7)
<b>Priority Two</b>	Salterley Quarry (named Wagon Quarry in the Geoconservation Reports) (1)
	Trye's Quarry (Devil's Chimney Quarry) (4)
	Middle and Upper Limekilns Quarries (8 & 9)
	Brownstone Quarry (10)
<b>Priority Three</b>	Incline Quarry (11)
	Daisybank Quarry (12)
	Charlton Kings Crags (14)
	Charlton Kings Quarry (13)
	Firsbrake and Ferncliff Quarries (2 & 3)
<b>The numbers in brackets denote the locations of the quarries on the Map below</b>	

**Priorities for Geoconservation work as proposed by Geode**

These proposals were developed purely from a geological standpoint and were based on the condition of the quarries in 2001. However, in developing an integrated solution (which fully considers the biological, historical, recreational and aesthetic aspects of the Hill) the proposals have been revised in terms of the extent, nature, timing and method of working.



**OBJECTIVE GC-1**

**TO MAINTAIN AND ENHANCE THE GEOLOGICAL CONSERVATION REVIEW FEATURES IN FAVOURABLE CONDITION AND RESTORE OTHER GEOLOGICAL FEATURES WHERE THIS IS CONSISTENT WITH OTHER CONSTRAINTS, IN ORDER TO**

**A. OBTAIN A CLEAR SET OF EXPOSURES THROUGHOUT THE SEQUENCE OF ROCKS.**

**B. RESTORE VIEWS OF KEY OUTCROPS AND QUARRIES.**

**Exposures**

Due to the national, regional and local importance of the site's geology and geomorphology it is recommended that the priority level attached to each exposure, as defined by Geode is adopted. However, it is recommended that the nature and timing of work is revised. The initial phase of geoconservation work was undertaken using heavy plant to 'refresh' key exposures and for the construction of inspection ramps. It is recommended that no further work using heavy plant is undertaken until year 3 of the plan (2005) with the exception of any agreed remedial work required from the first phase of work. This will allow time for the initial phase of works to 'weather-in' and for further consultation and awareness-raising to take place. Specific revisions are recommended in the Geoconservation Work Programme below.

**Views of Outcrops and Quarries**

Some of the exposures are obscured by the growth of trees and scrub). Therefore the removal of developing scrub is required in defined locations to restore views. However, a balance must be struck between the wildlife value of the existing vegetation, landscape considerations and the need to view exposures. Widespread scrub removal will benefit the restoration of limestone grassland, but may deprive woodland species of suitable habitat. Furthermore, it may change the character of the site. The extent of scrub removal will also be determined by the relative importance of an individual exposure.

It is recommended that further scrub removal during the 5 year plan period should only be considered on the Priority Two geological exposures (Priority One and some other exposures were cleared in March/April 2002). The extent of scrub removal for each quarry is identified in the Geoconservation Work Programme below, taking

account of the recent (July 2002) survey of 'Botanical Survey of Selected Quarries' undertaken by English Nature contractors (See Appendix 10).

Comment has been made that the retention of scrub will assist with the stabilisation of the scarp slope and in particular areas of scree. This is true of young scrub, but older scrub is more likely to suffer from wind-throw, which can result in further destabilisation. The most effective way of stabilising the slopes is to establish continuous grass cover.

In areas where scrub removal is recommended, efforts should be made to prevent re-growth. This can be achieved in two ways:

- Removal of stumps
- Chemical treatment of stumps

It is recommended that the latter option is used, as the removal of stumps may result in destabilisation of faces and slopes.

Despite treatment of stumps, scrub will continue to develop from seed. Where this occurs shrubs should be coppiced on a 5 year rotation followed by stump treatment. Note, because of the steep terrain specialist climbing skills may be required to undertake this work.

**OBJECTIVE GC-2**

**TO PROVIDE ACCESS FOR GEOLOGIST AND PALAEOLOGISTS FOR THE CLOSE EXAMINATION OF EXPOSURES AND TO MAINTAIN SCREE FOR SPECIMEN COLLECTION IN LINE WITH JOINT NATURE CONSERVANCY COUNCIL GOOD PRACTICE GUIDANCE.**

Access is required by geologists and palaeontologists to enable close examination of the exposures and the collection of geological and fossil specimens. Natural scree provides access to the faces and this can be (and has been in the initial phase of geoconservation work) shaped to provide ramps to the higher parts of the exposures. In the construction of scree ramps attention needs to be given to their overall appearance, stability and health and safety implications (danger of rock fall

and subsidence) for geologists and casual visitors using ramps as obvious access routes up and down the Hill.

It is recommended that casual visitors are warned of the possible dangers of using access ramps constructed specifically for inspection the rock faces.

The location, form and construction of ramps should be determined as part of a detailed consultation process carried out prior to geoconservation work being undertaken on a quarry-by-quarry basis. Recommendations for individual quarries are detailed in the Geoconservation Work Programme below.

The collection of specimens from scree piles is considered appropriate. However, consideration should be given to the appropriateness of specimen collection direct from the rock faces. The Joint Nature Conservancy Council has produced guidelines on mineral and fossil collection (see Appendix 17) which could be modified to make them specific to Leckhampton Hill and Charlton Kings Common.

**OBJECTIVE GC-3**

**TO SEEK TO ACHIEVE CONSENSUS ON THE EXTENT, NATURE AND TIMING OF GEOCONSERVATION WORK AND TO ENSURE THAT THE REASONS FOR UNDERTAKING WORK ARE WIDELY UNDERSTOOD PRIOR TO WORK TAKING PLACE.**

Recommendations for consultation and the provision of information are included in the 'Organisational and Operational Management Recommendations' section (Objectives OM-1 and OM-5). However, due to the problems generated by the first phase of geoconservation work, additional specific recommendations are proposed.

Information in advance of geological conservation work, explaining the nature of the work and the reasons why it is being undertaken, should be provided. A carefully thought out awareness raising strategy will be required as the "cold" publication of proposed works is likely to lead to local opposition, similar to that which followed the implementation of the initial phase of work.

The Strategy should involve:

- The provision of on-site interpretation as part of a comprehensive interpretative strategy for the site.
- Features in the local media (TV, radio and press).
- Guided walks taking in key exposures.
- Consultation and site meetings with interest groups and statutory agencies in particular English Nature and Gloucestershire County Council Archaeology Service.
- Publication of approved plans, including full details of the works and the outcomes.

Furthermore, it is essential to ensure that the proposed works do not conflict with other important environmental considerations, such as disturbance to industrial archaeological features or significant/protected species and habitats. So, in addition to consultation with specialist environmental interest groups and statutory agencies, decision-making should be informed by comprehensive survey work. Surveys should be conducted by suitably qualified personnel.

**OBJECTIVE GC-4**

**TO MONITOR THE CONDITION OF THE GEOLOGICAL EXPOSURES TO ENSURE THAT GEOCONSERVATION OBJECTIVES CONTINUE TO BE MET.**

The geological exposures are part of a dynamic environment. Even if the greatest possible care is taken to ensure the stability of the exposures they will continue to erode through the action of the elements, particularly the action of water and ice, resulting in minor rock falls and the gradual accretion of scree. Over time scree will build up against the faces and on the ramps, obscuring views and preventing access to parts of the exposures. Scrub, as previously identified will also continue to develop.

Fixed photographic points should be established and an annual record should be made. Examination of the photographs will reveal how the "current state" compares to the "desired state" of management and remedial management should be undertaken as required.

## **GEOCONSERVATION WORK PROGRAMME**

**NOTE. AS THE QUARRIES LIE WITHIN A SITE OF SPECIAL SCIENTIFIC INTEREST THE CONSENT OF ENGLISH NATURE NEEDS TO BE SOUGHT PRIOR TO ANY WORKS BEING UNDERTAKEN**

The work programme proposed by Geode in the 'The Geoconservation Programme for Leckhampton Hill SSSI' is included below in italics. A recommended revised programme, specific to each quarry, follows each section. As mentioned previously, a programme of geoconservation commenced in March 2002 and the major work on the Priority One sites has been completed.

### **General Considerations**

- Geoconservation work must take place under the supervision of suitably qualified and experienced geologist.
- The implications for proposed work must be fully considered in consultation with FOLK, English Nature, Gloucestershire County Council Archaeology Service, Gloucestershire Geoconservation and other appropriate consultees.
- Prior to work taking place, exposures should be the subject of a biological survey to ensure that works do not cause unacceptable disturbance to projected species.

The work programme proposed by Geode in the 'The Geoconservation Programme for Leckhampton Hill SSSI' is included below in italics. A recommended revised programme, specific to each quarry, follows each section.

### **Priority One sites**

Lower Limekilns, Quarry

*Geode states*

*"This section is in the worst condition on the SSSI. Due to the industrial archaeological remains here, sympathetic restoration is needed. It is important that ALL trees/scrub are removed from around this site to provide views of the immediate*

*quarry and to the upper sections above. Dig back extensive scree build up behind the old kilns and expose and leave safe the basal limestone/top Lias section. Some of the scree will need to be removed from the site, either to repair old tracks or to be repositioned elsewhere on the SSSI”.*

The management proposed by Geode was completed, with English Nature funding, in April 2002, and it is reported to have gone beyond that agreed. From a geological point of view the work has achieved its objectives. However, it has resulted in scree build up behind the limekilns and the newly constructed ramp is encouraging use by ill-equipped casual visitors.

Detailed remedial action should be determined in consultation with English Nature, Gloucestershire County Council Archaeology Service and FOLK (as the representative body of Hill users). Immediate health and safety considerations should be resolved as soon as possible. However, additional works should only be implemented following publication of the agreed solution to ensure that the public is aware of the need for the work and the proposed outcome.

The stumps of trees and shrubs cut down to facilitate the geoconservation work should be treated with an appropriate herbicide to prevent coppice re-growth.

#### Dead Man's Quarry

*Geode states*

*“This is one of the most important sections on the SSSI. All the scrub/Ash needs clearing from the quarry and the adjacent banks. This will involve digging out the roots of larger timber. The screes in the quarry need repositioning to form clear vertical faces in parts and inclined access screes giving ramps to inspect the higher parts of the face elsewhere. At the southern end of the quarry some work is needed to improve the track and to provide cleaner faces through the oolite marl section towards the top of the cliff. There will also need to be some clearance work on the old tramroad access north eastwards towards middle Limekilns quarry”.*

The management proposed by Geode was undertaken, with English Nature funding, in April 2002. From a geological point of view the work has achieved its objectives.

This work was undertaken with more thorough consultation, but has still left some cosmetic and health and safety considerations to be resolved, in particular public use of the ramp.

A detailed remedial solution should be determined and publicised as for Lower Limekilns Quarry.

The stumps of trees and shrubs cut down to facilitate the geoconservation work should be treated with an appropriate herbicide to prevent coppice regrowth.

### **Priority Two Sites**

Work on priority two sites has not yet been undertaken. It is recommended that the proposals are reviewed collectively in consultation with English Nature, Gloucestershire Geoconservation, Gloucestershire County Council Archaeology Service and FOLK to formulate a timed plan to be implemented by the end of the plan period following public awareness raising. The recommended management below is intended to inform the planning process.

Salterley Quarry (also known as Wagon Quarry)

*Geode states*

*“This site is in fairly good condition. Some work is need to clear vegetation from the north- eastern side of the quarry and also to clear screes that have built up. Some digging is needed to re-expose the fault and reported Pea grit horizon in the north west part of the quarry. There is also a site on the side of the road that leads to the quarry that needs tree clearance where the base of the Scissum beds/Upper Lias can be exposed (GR 9449,1775). This work would add significantly to the site area”.*

These proposals are considered to be appropriate. Removal of selected scrub and trees should be undertaken initially, with further consideration given to the nature of works required to re-expose the fault and reported Pea Grit horizon.

Trye’s Quarry /Devils Chimney Quarry

*Geode states*

*“This set of banks and bluffs that are screed-over quarries need some scrub clearance from near the faces and scree removal. The sections are important to the*

*history of quarrying on the hill but of secondary importance to the geology of the site. The sections near the Devil's Chimney need sympathetic treatment in reference to the social and historical associations. However the scrub needs clearing and some attention to the screes”.*

Although Geode states that the geology is of secondary importance, scrub removal would benefit the limestone grassland. Scrub removal in the vicinity of the Devil's Chimney is proposed elsewhere in the plan as part of the grassland management recommendations and to improve views of the Chimney itself. Scree removal is not a priority and should not be undertaken until year 3 of the plan at the earliest following further detailed consideration of the method of working.

### Middle and Upper Limekilns Quarries

*Geode states*

*“These sections are again badly affected by tree/scrub encroachment over the last 40 years. The access to these sites is also bad and for the future maintenance of the site it is imperative that tracks are cut in the scree to allow vehicles to get to these sites. Careful marking of select trees that can be left will be needed but at least 75% of the tree growth on these sections will need to be removed. The mature Beech can be left but all the Ash and Birch will need removal. The issue of scree removal for improving tracks or dumping will have to be resolved. A key section that needs creating is a cutting through the Pea Grit, just above Lower Limekilns at the base of the section. This will also help create a safe access route to the east end of Lower Limekilns”.*

The Geode proposals require detailed consideration by key consultees.

Views of this exposure are almost totally obscured, consequently the viewpoint and the exposure itself requires some clearance work. However, the proposal to remove at least 75% of the tree growth is considered to be excessive. It is recommended that a 'slice' be cut through the encroaching trees and scrub to reveal a cross-section through the sequence. The location of the slice should be determined on the advice of Gloucestershire Geoconservation. Selective scrub removal on the boundary of the 'slice' should be undertaken to soften the appearance of the cleared area.

The creation of a cutting through the Pea Grit requires further consideration and, as it will require the use of heavy plant, it should not be undertaken until year 3 at the earliest for the reasons given in Objective GC-1. The creation of direct access to these exposures is not recommended.

### Brownstone Quarry

*Geode states*

*“This quarry and the cutting along the side of the field to the north are in a poor state. There has been considerable weed/grass build up on the field edge sections and scrub invasion in the main quarry. Only some sections need improvement since it is not essential that 100% of the exposure is maintained, either along the field edge or in the quarry”*

The neighbouring tenant farmer has recently cleaned up key sections of the exposure along the field edge. The removal of scrub in Brownstone Quarry is proposed as part of the limestone grassland management recommendations and will improve views of the exposure.

### Priority Three Sites

It is recommended that no geoconservation work takes place on any of the Priority Three sites during the plan period (up to the end of 2007) unless it is required to achieve an alternative management objective eg the restoration of limestone grassland on Charlton Kings Common.

All sites should be monitored through fixed-point photography throughout the plan period. Geoconservation work should be undertaken only if the quality of a particular exposure deteriorates substantially. Geode's recommendations for priority three sites are included for information

### Incline Quarry

*Geode states*

*“This quarry will probably need about a day of scrub clearance and half a day with a digger. The condition is moderate and has suffered from scrub encroachment”.*

## Daisybank Quarry

*Geode states*

*“The site has suffered from the trees around growing and scrub build up. The screes need some clearing from the faces”.*

## Charlton Kings Crag

*Geode states*

*“These scars or crags have suffered less from scrub than other areas. The rock faces need some clearance in a few select places but done sympathetically to fit in with this popular walking area. It may be however that adjacent scrub clearing will be needed for biodiversity reasons”.*

## Charlton Kings Quarry

*Geode states*

*“This quarry is fairly difficult for access but has again been affected by scrub development. Some work can be done to improve the access to the faces by scree repositioning and improving site access and safety”.*

## Firsbrake and Ferncliff Quarries

*Geode states*

*“Little work is needed at these sections. They may benefit from some scrub clearance near the faces and the regrading of some of the scree. Otherwise they are in reasonable condition”.*

### **Summary of Geoconservation Recommendations (RGC-01 - RGC-10)**

- RGC-01 The proposals in Geode's 'Geoconservation Programme' should be revised.
- RGC-02 Remedial work following the initial phase of work on priority one sites should be undertaken immediately to resolve health and safety issues and conflicts with historic environment features.
- RGC-03 Apply a 2 year moratorium on the use of heavy plant for geoconservation work.
- RGC-04 Further work on priority one sites should involve additional consultation.
- RGC-05 Work proposed for priority two should be subject to further consultation.
- RGC-06 No work should be undertaken on priority three sites, unless it meets other management objectives or the quality of the exposure has undergone significant deterioration.
- RGC-07 Casual visitors should be warned of the dangers of close approach to the quarries.
- RGC-08 An awareness raising campaign to highlight the importance of the quarries should be undertaken.
- RGC-09 A code of practice, specific to the site, should be developed for the collection of geological specimens and fossils.
- RGC-10 The condition of the exposures should be monitored through fixed-point photography.

# **HISTORIC ENVIRONMENT RECOMMENDATIONS**

## **HISTORIC ENVIRONMENT RECOMMENDATIONS**

Leckhampton Hill and Charlton Kings Common has been influenced by humans for thousands of years and, as such, has been shaped and altered to suit particular needs. It was a burial place and settlement site in pre-history, a sheep run in the medieval period, quarried for the natural resources in the 18th and 19th centuries and, in the middle of the 20th century, a site for the defence of Britain.

This section is informed by the comments of the Gloucestershire County Council Archaeology Service (GCCAS) including information supplied from the Gloucestershire Sites and Monuments Record.

The historic features of the site are relatively well documented and a number of threats to the conservation of the historic environment resource have been identified. This section outlines the immediate requirements, however, it is important that a more detailed archaeological survey is undertaken to further inform conservation and interpretation, in addition to providing an adequate record of the site in its present form, prior to the implementation of more major conservation work.

### **OBJECTIVE HE-1**

**TO ESTABLISH AN ONGOING PROGRAMME FOR THE RECORDING AND MONITORING OF HISTORIC FEATURES, INCLUDING A FIXED POINT PHOTOGRAPHIC RECORD.**

Any proposed work, either to conserve historic features or work that may impact on the historic environment resource, must be informed by quality information.

It is recommended that a fixed-point photographic record is established to monitor the condition of historic environment features. This should form part of a baseline archaeological survey which should be commissioned prior to the implementation of major works which may impact on standing and buried archaeology. A programme of archaeological investigation and geophysical surveying has been identified as having particularly good potential to provide information for the purposes of enhancing and informing public enjoyment of the area.

**OBJECTIVE HE-2**

**TO PROVIDE INFORMATION AND INTERPRETATION ON THE HISTORIC ASPECTS OF THE SITE.**

Recommendations for the interpretation of the Historic Environment are included in the 'Operational and Organisational Management Recommendations' section (Objective OM-5).

**OBJECTIVE HE-3**

**TO ENSURE THAT THOROUGH CONSULTATION WITH ALL RELEVANT AGENCIES AND INTEREST GROUPS IS UNDERTAKEN TO AGREE THE EXTENT AND NATURE OF WORK WHICH MAY IMPACT UPON STANDING OR BURIED ARCHAEOLOGY PRIOR TO IMPLEMENTATION.**

Recommendations for consultation are included in the 'Organisational and Operational Management Recommendations' section (Objective OM-1). However, due to the impact on the Limekilns caused by the first phase of geoconservation work, it is considered necessary to reinforce the need to consult English Heritage and Gloucestershire County Council Archaeology Service in advance of works which may impact on standing or buried archaeology.

**NOTE. SCHEDULED ANCIENT MONUMENT CONSENT SHOULD BE SOUGHT FROM ENGLISH HERITAGE PRIOR TO MANAGEMENT WORK TAKING PLACE WITHIN THE BOUNDARY OF THE SCHEDULED ANCIENT MONUMENT.**

The following sections define immediate priorities to conserve and enhance key Historic Environment features.

**Leckhampton Camp (Hillfort)**

Leckhampton Camp warrants particular attention because of its national historic importance (Scheduled Ancient Monument). The management recommendations address the following issues:

- Earthwork erosion, particularly around the Ordnance Survey datum pillar
- Scrub encroachment
- Future grassland management
- Treatment of the dry stone wall

**OBJECTIVE HE-4****TO MAINTAIN CONTINUOUS GRASS COVER OVER THE ROUND BARROW.**

Scrub was cleared from the Round Barrow over the winter of 2001/02. The soils on the Barrow are deeper and more fertile than on the remainder of the site and are recolonising with coarse grass and weed species. Much of the ground is still bare, offering ideal conditions for recolonisation by scrub and colonisation by rabbits.

It is essential that permanent grass cover is established as soon as possible. Grass cover should be achieved by natural colonisation (although seed gathered locally on site could be used to speed the restoration process). This area should be mown/strimmed regularly (monthly) during the growing season to discourage the growth of coarse weeds and scrub, Woody species should be spot-treated with an appropriate herbicide, applied by a suitably qualified operative. Regular mowing should cease when a continuous grass sward, comprising fine grasses and herb species, has been established.

The rabbit population should be monitored and suitable control measures implemented should the rabbit damage rise to an unacceptable level (as defined by Gloucestershire County Council Archaeology Service/English Heritage).

In the medium term the grass cover should be maintained through the grazing regime recommended for the management of limestone grassland.

**OBJECTIVE HE-5****TO RESTORE THE HILLFORT RAMPARTS, PAYING PARTICULAR ATTENTION TO THE AREA AROUND THE ORDNANCE SURVEY DATUM POINT AND THE ENCROACHMENT OF SCRUB.****Earthwork Erosion**

There are three main areas of erosion, all located on the eastern rampart and comprising the northern and southern entrances and the OS datum pillar. It is recommended that these areas are repaired, using English Heritage best practice guidance, to provide a durable, protective surface, which will restore the former profile of the ramparts and halt further erosion. This surface should be of grass,

where there is not expected to be heavy traffic, and of a suitable granular paving material where well-used routes exist, such as around the OS datum pillar.

### **Scrub Management**

Trees and scrub are a particular problem on archaeological sites for three main reasons:

- Root damage - roots cause serious damage to the stratigraphy, the system used by archaeologists to provide relative dating, of archaeological remains
- Wind throw - the roots of trees on archaeological sites, particularly earthworks, often remove large sections when they are blown over
- Cover for burrowing animals, in this case rabbits - the cover provided by trees and invasive scrub provides an attractive habitat, relatively safe from aerial predators, for burrowing animals. Leckhampton Camp has a particularly severe rabbit problem on the southern rampart.

Scrub occurs in defined blocks in the centre of the Camp and on the earthworks, with a particular concentration on the southern ramparts. A balance needs to be established between maintaining scrub as a wildlife habitat and minimising the adverse effects it has on the archaeology.

It is recommended that scrub is removed from the ramparts, but that the blocks in the centre of the Camp are initially retained (Gloucestershire County Council Archaeology Service has recommended that the central blocks of scrub are removed and this should be given further consideration in consultation with relevant statutory, advisory and interest groups).

Scrub removal should commence on the southern ramparts where the rabbit problems and the danger of wind throw are greatest. Scrub should be cut flush with ground and treated with an appropriate herbicide, applied by a suitably qualified operative. Continuous grass cover should be established over the ramparts. This should initially be attempted through natural colonisation as prescribed for the Round Barrow. However, the ramparts, once cleared, may prove attractive to walkers, as is the case in the vicinity of the datum pillar, and it may be necessary to prevent access using temporary fencing to enable grass to re-establish.

### **Grassland Management**

Much of the grassland within the Camp is of considerable biological importance and is managed by the removal of an annual hay crop. Cutting is suitable on the flat areas, but is not possible on the ramparts and the Round Barrow. Without active management, scrub encroachment will continue to be a problem. One solution is to periodically coppice the scrub and to treat the stumps. However, a more sustainable solution, appropriate for the conservation of the limestone grassland habitat and the archaeological resource, is to implement a grazing regime. This is the recommended course of action and is more fully explained in the Biodiversity Recommendations.

### **Dry Stone Wall**

A dry stone wall, now in a state of partial collapse, has been built on the southern rampart. Consideration was given to its removal to restore the integrity of the ramparts, but following advice from the Gloucestershire County Council. Archaeology Service it is recommended that the wall is retained and restored. Recommendations for the restoration of dry stone walls elsewhere on the site are outlined later in the Historic Environment Recommendations (Objective HE-4).

It is recommended that a detailed restoration scheme for the whole of the Scheduled Ancient Monument (to active Objectives HE-4 and HE-5) should be developed in consultation with English Heritage.

### **Industrial Archaeology**

The quarrying of limestone, particularly in the late 19th and early 20th Centuries, has shaped much of escarpment. Evidence of the quarrying operations is widespread and includes the remains of the limekilns and a complex network of former tramroads and inclines which were used to transport stone off the site. The following recommendations are informed by the comments of the Gloucestershire Society for Industrial Archaeology (GSIA).

See the map below for the locations of works suggested by GSIA. The reference to 'Points' in the text relates to reference points on the map.



**OBJECTIVE HE-6**

**TO MAINTAIN THE LIMEKILNS AND FORMER ELECTRICAL PLANT HOUSE IN THEIR CURRENT STATE AND PREVENT FURTHER DETERIORATION.**

The limekilns have suffered some deterioration as a result of recent geoconservation work and vandals are slowly dismantling the nearby former Electrical Plant House. It is essential that further deterioration of the structures is prevented, if these significant features are to be retained.

GSIA suggests

The scree build up behind the limekilns (Point 7) should be removed and the concrete bases of the limekilns (Point 8) require basic consolidation.

It is recommended that Cheltenham Borough Council's structural engineers are asked to undertake a survey of the structures and make recommendations to prevent further deterioration. The suggestions of GSIA should be reviewed in the light of the recommendations and it may be possible to enlist the assistance of their suitably qualified volunteers to undertake some of the work.

**OBJECTIVE HE-7**

**TO OPEN UP SELECTED TRAMROADS AND INCLINES TO AID THE UNDERSTANDING OF THE FORMER COMPLEX RAILWAY NETWORK AND ENSURE THAT THE SURFACES ARE REPAIRED AND MAINTAINED.**

The following have been identified by GSIA as immediate conservation priorities and achievable with relatively limited resources following their re-evaluation of the remains of the former tramroads and inclines in the first half of 2002.

It is recommended that the following are identified for further research and consultation. In particular the practicalities of the proposed excavation and exposure of the sleeper blocks needs to be considered. The benefits of exposing the blocks should be set against potential 'costs' such as erosion caused by visitors and water run-off, health and safety (potential for trips and falls) and vandalism.

## **Line of Tramroad to Brownstone Quarry**

GSIA suggests

*Remove small trees and scrub from the line of the tramroad where it runs from the top of the Top Incline (Point 1 to Point 2) and where the tramroad turns south-east to enter the former Brownstone Quarry. This is a distance of approximately 80 metres in an easterly direction. Extend the scrub clearance eastwards from Point 2 to Point 3 for a distance of about 70 metres to reveal the branch line and sidings shown on the 1880 O.S. map. The cuttings for these sidings are clearly visible at point 3.*

*Stone sleeper blocks are known to exist on this stretch of tramroad from the GSIA excavation carried out in 1973. However, the blocks are now fully covered by soil and turf. This is considered one of the key areas where the double line of blocks should be re-exposed for the benefit of the public. It is proposed that the tops of sleeper blocks should simply be exposed such that the tops of the blocks lie flush with the surrounding ground.*

## **Middle Incline**

GSIA suggests

*Remove of trees and scrub growing on the line of Middle Incline from its foot at Tramway Cottage (Point 4) to the top at the Focal Point of the Railways (Point 5). This is a distance of approximately 260 metres.*

*A resistivity survey could then be carried out to determine if any of the sleeper blocks remain in-situ on Middle Incline. If blocks were found then it would be desirable to excavate back the soil to expose the tops of the blocks.*

## **Focal Point of the Railways**

GSIA suggests

*Remove the small number of trees that lie at the very foot of the Top Incline which are exactly in line with the incline (Point 6). This will allow walkers on the hill to look directly up to see the 1 in 2.1 incline. At present these trees block the view up the incline.*

## **Daisybank Road**

GSIA suggests

*Carry out an investigation to determine whether any of the stone sleeper blocks remain in-situ in the shallow cutting along the south side of Daisybank Road between the corner of the tramroad at Tramway cottage (Point 4) and the main road, the B4070: Leckhampton Hill (Point 9). This is a distance of about 100 metres.*

*If it can be established that there are still stone sleeper blocks in-situ then a length of blocks should be have their tops exposed so that the tops of the sleeper blocks lie flush with the surrounding ground. This should create a useful point of interest as this is the entry point to the hill for many visitors.*

#### **POLICY HE-8**

#### **TO RESTORE DRYSTONE WALL BOUNDARY FEATURES.**

Research was undertaken in to the condition of the site boundary during the information-gathering phase of management plan preparation. Dry stone walls occur on many of the boundaries in the form of upstanding walls and 'ha-ha' features. It is not clear whether the ha-has were specifically constructed, or whether they have developed through the build up of rock and soil slippage and the accretion of leaf litter, nonetheless they are in fair condition. This is not the case with the upstanding walls, all of which are in a poor state of repair and have been back-fenced with post and wire fencing. Many of the boundary walls are also obscured by the development of scrub.

It would be desirable to restore all the boundary walls to good condition, however this would be an extremely costly undertaking. The principal benefits of repair would be the restoration of local landscape character and stock control (although the boundaries are, in the main stock proof, by virtue of the back-fencing). Consequently, the relative priority of dry stone wall restoration, when set against other management (and funding) priorities, dictates that the costs would outweigh the immediate benefits.

It is recommended that restoration of the boundary walls is not undertaken in the plan period, except in the area of the Leckhampton Camp where it follows part of the southern rampart, unless substantial external funding becomes available. Should this be the case, it is recommended that the condition of the wall along the southern boundary of the site from Salterley Quarry to the end of Charlton Kings Common is reassessed with a view to the identification of most suitable areas for restoration. These are likely to be in the areas where scrub has been removed and a grazing regime has been established, making the wall a more visible feature.

The wall along the ramparts could be used for training in the 'art' of dry stone walling, offering a cost effective, if slow, mechanism for restoration.

**Summary of Historic Environment Recommendations (RHE-01 - RHE-12)**

- |        |   |
|--------|---|
| RHE-01 | Establish a fixed-point photographic record.  |
| RHE-02 | Commission a base-line archaeological survey.   |
| RHE-03 | The commissioning of geophysical survey of Leckhampton Camp would enhance the archaeological record and provide interpretative opportunities. |
| RHE-04 | Provide interpretation of key historic environment features.  |
| RHE-05 | Consult archaeological specialists prior to undertaking major works.  |
| RHE-06 | Obtain Scheduled Monument Consent from English Heritage prior to undertaking work in the area of Leckhampton Camp.                            |
| RHE-07 | Implement a programme of scrub management on the hillfort.  |
| RHE-08 | Initially retain scrub in the centre of the Camp, but give consideration to its future removal.   |
| RHE-09 | Establish continuous grass cover on the rampart and barrow.   |
| RHE-10 | Restore of the ramparts around the OS datum point.  |
| RHE-11 | Commission a structural survey of the Limekilns and the former Electrical Plant House.  |
| RHE-12 | Research and consult on GSIA proposals for conservation work on the tramroads and inclines.   |

# **ACCESS AND RECREATION RECOMMENDATIONS**

## **ACCESS AND RECREATION RECOMMENDATIONS**

A wide range of access and recreational activities take place on Leckhampton Hill and Charlton Kings Common. Few of the current activities are undesirable. However, with so many activities taking place in a limited area, conflicts can arise between different recreational uses. The following objectives are intended to improve the quality of access opportunities, rationalise access anomalies and to reduce conflicts between activities.

### **OBJECTIVE AR-1**

**TO ENCOURAGE AND ENABLE THE CURRENT RANGE OF PERMITTED RECREATIONAL ACTIVITIES TO TAKE PLACE IN A WAY THAT MINIMISES CONFLICTS BETWEEN DIFFERENT USER GROUPS AND PROTECTS NATIONALLY IMPORTANT ENVIRONMENTAL ASSETS.**

In general terms the majority of activities that take place on the Hill do not compromise the conservation of nationally important environmental assets - the limestone grassland, the geological exposures and the scheduled ancient monument. The exception to this is the erosion of the limestone grassland and the ramparts of the hillfort by walkers and other users.

The full range of recreational activities that take place on the site have been considered and following are considered to be the main acceptable recreational uses which can be undertaken without prior permission

- Walking
- Dog walking
- Horse riding
- Hang gliding, paragliding and the flying of non-motorised model aircraft
- Cycling and Mountain biking
- Picnicking
- Tobogganing, skiing and snowboarding
- Collection of geological/ fossil specimens

Some of these activities are having a detrimental effect on the grassland and historic feature. Recommendations to minimise their impact of these activities and

for remedial works are outlined in the sections dealing specifically with biodiversity, geodiversity and the historic environment.

Other activities that may be undertaken with prior permission are considered to be

- Barbecues
- Rock climbing and Abseiling

These should be permissible in defined locations, using approved equipment, and in the case of rock climbing/abseiling proof of competence. Permission to undertake these activities should be sought from the Community Park Ranger team of Cheltenham Borough Council

#### **OBJECTIVE AR-2**

**TO PROHIBIT UNDESIRABLE RECREATIONAL ACTIVITIES DUE THEIR EFFECT ON NATIONALLY IMPORTANT ENVIRONMENTAL ASSETS AND HEALTH AND SAFETY CONSIDERATIONS.**

Currently the only prohibited activities are

- The use of 4-wheel drive vehicles
- Off-road motorcycling

These activities are undertaken infrequently and are not considered to be detrimental to site management at present. However, increased popularity may lead to problems, including erosion of tracks, damage to grassland and historic features (particularly earthworks) and health and safety considerations in the future.

It may be possible for an interest group to prove a right of access for 4-wheel drive vehicles and motorcycles along Sandy Lane/ The Gallops track (Old Turnpike Road) and Daisybank Road, although the surface is not suitable for persistent use. This issue should be addressed as part of the proposed modifications to the rights of way network, although such use is considered to be unsuitable.

Site byelaws should prohibit access by 4x4s and motorcycles, although the imposition of local authority bylaws may not be possible on this site.

As the current problem is minor it is recommended that barriers to prevent 4x4 and motorcycle access, but allow the passage of horses, bicycles, wheelchairs and

pushchairs, should **not** be installed. However, the situation should be closely monitored and should the problem increase and it prove impossible to limit undesirable access through persuasion and byelaws, only then should barriers be installed.

### **OBJECTIVE AR-3**

#### **TO PROVIDE SAFE, WELL-MAINTAINED ACCESS POINTS AND CAR PARKS.**

Access points, as the visitor's first impression of the site, often determine how the visitor treats the site. Badly maintained, pot-holed car parks, full of litter with shabby signs and out of date notices, convey a feeling that the site is not cared for. The opposite situation - a car park fit for purpose, free of litter, with attractive signage and timely, current information - encourages the visitor to respect the site.

It is important that all the car parks and access points give the latter impression and generally this is the current situation.

It is also important to consider visitor safety where pedestrian, horse or cycle accesses meet busy roads. Suitable signs should make people aware of potential hazards and access restrictors can be used to reduce the speed of certain users, such as cyclists, giving them extra time to prepare. Access restrictors also serve to prevent prohibited users, such as motorcycles, from accessing the site.

Signs at access points should also detail the nature of acceptable and prohibited uses.

### **OBJECTIVE AR-4**

#### **TO IMPROVE ACCESS INFORMATION.**

##### **Welcome Signs**

Prominent 'welcome' signs should be erected at the entrances to each of the car parks giving the car park name as follows:

- Salterley Car park
- Brownstone Car Park
- Daisybank Car Park

The location of alternative car parks should be indicated on the orientation panels which are to be located in each car park (see below).

### **On-site Orientation**

The site is crossed by a complex network of rights of way and other tracks. Although it is difficult to get lost on the site, there are numerous features that people wish to visit, many of which are difficult to locate. The provision of access information, or orientation, is considered essential to improve visitor enjoyment. These recommendations do not include provision for interpretation, which is covered in the recommendations for Organisational and Operational Management and should be the subject of an holistic interpretative strategy.

Three types of orientation media are recommended

#### **Site guide**

This should be developed as part of the interpretative strategy and should include, as well as interpretative information on biodiversity, geodiversity and the historic environment, a plan of the site including public rights of way, other tracks and the locations of key features, such as the Devil's Chimney. Many people have difficulties reading maps, so thought should be given to a user-friendly format, perhaps using an oblique pictorial representation of the Hill.

The site guide could be obtained for a small charge, available from local tourist information centres, libraries, local shops and other local information points. Alternatively, it could be a free publication, available from all the above outlets. Free guides dispensed on site could exacerbate litter problems, so dispensers would need to be regularly stocked with a small number of guides. The guide could also be made available as a downloadable pdf file from an appropriate website/s (FOLK/ CBC).

#### **Orientation panels in the car parks and major access points**

Orientation panels, enabling visitors who are unfamiliar with the site to choose where they want to go and what they want to see, should be located in all the car parks. These should be in the oblique pictorial style suggested

for the site guide and orientated in the direction which visitors will access the site: Orientation panels should also incorporate interpretative material.

Additional panels should be located at other major access points, such as Daisybank Fields, Sandy Lane, the southern end of The Gallops and where the bridleway accesses the site in the vicinity of the Limekilns.

### **Finger-post and waymarking**

A general feeling, both from the steering group and public consultation event, is that the site should not be 'cluttered' with signs and take on the appearance and feel of a country park. However, it was also apparent that new visitors to the site have difficulty in locating key features.

To enable easier route-finding, whilst maintaining the character of the Hill, finger posts should be installed at the car parks and other major access points. These would point the way to the most important features, in particular the Devil's Chimney, Hillfort and key viewpoints. Recommended routes should be reinforced by the provision of a limited number of wooden waymarker posts, sufficient to enable easy route finding.

### **OBJECTIVE AR-5**

#### **TO MAINTAIN AND IMPROVE VIEWPOINTS FROM THE HILL OVER LECKHAMPTON, CHELTENHAM AND THE WIDER COUNTRYSIDE.**

One of the main reasons for visiting the Hill is to enjoy the magnificent views over Cheltenham, the Severn Vale and beyond to the Malvern Hills and the Brecon Beacons.

The toposcope, lying within the boundary of the Scheduled Ancient Monument at the top of Leckhampton Hill, which points out topographical features in the landscape, is a particular point of interest. Erosion around the toposcope should be addressed as part of a comprehensive scheme for erosion control on the hillfort rampart and the Ordnance Survey Datum Point (see Historic Environment Recommendations).

There are numerous viewpoints along the edge of the escarpment defined by the location of seating. Some of the seating is in a poor state of repair and some of the views are obscured by encroaching scrub, particularly on Charlton King's Common. The removal of scrub, through the implementation of the limestone grassland restoration recommendations, will re-open many viewpoints. However, it is recommended that a comprehensive scheme for the refurbishment and provision of defined viewpoints/seating is undertaken. This should involve:

- The repair or removal of broken seats, as appropriate (special attention should be given to the treatment of memorial benches which have sentimental value).
- Retention of sound seating in locations that afford good views and are not suffering from local erosion.
- Relocation of sound seating from locations with obscured views (that will not be cleared during scrub removal/grassland restoration).
- Relocation of sound seating from locations that are suffering from erosion.
- Installation of supplementary seating. The Fieldfare Trust, a charity that promotes access to the countryside for people with disabilities, has published accessibility standards that should be used to redefine the location and design of resting places.

Note consent will be required from English Nature and English Heritage for new seating to be located within the SSSI and the Scheduled Ancient Monument.

**OBJECTIVE AR-6**

**TO IMPROVE ACCESS FOR ALL, INCLUDING PEOPLE WITH DISABILITIES WHERE PRACTICABLE, THROUGH THE PROVISION OF A NETWORK OF WELL-MAINTAINED PATHS WITH MINIMAL WAYMARKING.**

Numerous paths cross the site, following long-established desire lines and the former tramroads and inclines. Some are designated public rights of way.

On the top of Leckhampton Hill and Charlton Kings Common a thin layer of soil, just a few centimetres deep, overlies the limestone bedrock. Constant pedestrian, cycle and horse traffic over many years, has removed the topsoil in a number of locations, creating eroded tracks through the important limestone grassland. Soils are eroded down to the limestone bedrock, forming a relatively smooth, hard surface which dries out quickly following rain. In areas where scrub has not developed the grass

paths are very wide, however where scrub has developed the paths are very narrow.

The paths on the top of the Hill and Common are generally fit for purpose, but require the removal of scrub at pinch points to spread the visitor load and allow two horses or cycles to pass. Surfacing should not be undertaken as the nature of the machinery required to achieve the works, in an effective rather than piecemeal fashion, would have a detrimental effect on the fragile limestone grassland flora. Removal of scrub, particularly on Charlton Kings Common as part of the grassland restoration works will achieve the required path widening.

Within the woodland the tracks tend to be very steep, in many cases following the lines of the old tramroads and inclines created by quarrying operations for the transportation of limestone. Many of these tracks are suffering from erosion particularly caused by cycle traffic and exacerbated by rainwater run-off. In places the tracks are very deeply rutted, most notably on the standard gauge incline from Daisybank Road to the Limekilns and beyond to Dead Man's Quarry. The bridleway from Sandy Lane to the top of Charlton Kings Common is also badly eroded.

All paths where people can reasonably be expected to walk need to be maintained to a safe standard, fit for the purpose for which they are intended. This requires them to have a reasonably even surface and be free from overhanging obstructions. It is recommended that all paths receive regular attention. However, in the initial phase of management a hierarchy should be established to define those tracks that require immediate attention, either because of their designation or because of their state of repair, and those that require attention later in the plan period. At the end of the 5 year plan period all paths should be in their desired state.

The recommended indicative priority is as follows:

- Priority One - those paths that require immediate attention (Year 1). These include the Cotswold Way National Trail and all definitive rights of way where they pass through woodland and areas of heavy scrub. They also include the steep paths outside the woodland areas where water erosion is a problem, in particular the bridleway from Sandy Lane to the top of Charlton Kings Common.

- Priority Two - definitive rights of way outside the woodland and areas of heavy scrub (years 2 and 3).
- Priority Three - all other tracks. These should be monitored and any remedial action specified during annual reviews of the plan.

The priority list above is for guidance only and a detailed condition assessment of all paths should be undertaken, in conjunction with Gloucestershire County Council's Rights of Way Team, as a priority and a detailed work programme developed.

### **Path Management Techniques**

It is not possible to prescribe specific operations for particular sections of path. However the following general guidelines should be applied. Note on sections of path where erosion is particularly bad, a civil engineering solution may be required, such as on the standard gauge incline and the Charlton Kings Common bridleway. The BTCV publication 'Footpaths - A Practical handbook (revised edition)' by Elizabeth Agate is an invaluable source of reference.

#### **Vegetation management.**

Vegetation, such as overhanging branches and scrub, should be cut back on all sections of paths to the following working minimum clearances depending upon the designation of the track:

- Footpath - 2 metres wide, by 2 metres high
- Bridleway/cyclepath - 3 metres wide, by 3 metres high

Paths cut back to these minimum clearances can reasonably be expected to stay open for one season. However, a path cut back to 3 metres will stay open for twice as long as a 2 metre path, it will also receive more direct sunlight and dry more quickly after a period of rain. Therefore, it would be desirable, where possible, to cut back paths to a greater width in the interest of efficiency.

#### **Management of surface water run-off**

This is a requirement on steeply sloping paths, for example the standard gauge incline, and should be carried concurrently with repairs to the surface. Where run-off is a problem cut-offs will need to be installed. Their location and construction will need to be carefully planned to maximise their

effectiveness and minimise potential for trips and falls by pedestrians, cyclists and horses. Poorly constructed or maintained cut off channels, which cause injury, could result in a claim for compensation. Furthermore, Gloucestershire County Council Archaeology Service should be consulted on the proposals for the inclines to ensure that their integrity is maintained.

### **Access for people with disabilities**

Every opportunity should be given to make the site as accessible as possible given the constraints of the terrain. The scarp slope is unsuitable for wheelchair access, however the surfaced track from Brownstone Car Park, via Hill Farm, to the hillfort provides an ideal access to the highest point of the Hill and the viewpoint beyond, although there are potential health and safety issues relating to the use of the track by farm machinery and lorries. If this track was to be used for wheelchair access then some attention to the surface would be required.

Although surfacing beyond the current extent of this track is inappropriate, in dry conditions the surface is still suitable for all but the most infirm to access the viewpoint. There are further opportunities for people in electric powered 'buggies' to venture further afield, particularly to the west and then south over Leckhampton Hill along the route of the Cotswold Way.

An alternative route could be provided from Brownstone car park to the edge of Charlton Kings Common, via public footpath ASH47, but access to the hillfort area would be more difficult along this route. Both routes are controlled by Hill Farm, so in order for either to be used the consent of the tenant farmer would be required.

The Cotswold Way Team is keen to explore the possibility of providing a wheelchair accessible path from the Salterley Car Park to create a circuit passing through the Brownstone Car Park. This is particularly important due the proximity of the National Star Centre College of Further Education at nearby Ullenwood.

The National Star Centre exists "to enable young people with physical disabilities to prepare for the best that adult life can offer through innovative programmes of education, training and independence". There are excellent opportunities to work in partnership with the college to develop solutions and improve access for people with a range of disabilities to Leckhampton Hill and Charlton Kings Common.

**OBJECTIVE AR-7 RIGHTS OF WAY AND ACCESS:**

- AR-7.1 TO IMPLEMENT LIMITED RIGHTS OF WAY MODIFICATIONS WITHIN THE SITE TO CREATE INTER-CONNECTING ROUTES.**
- AR-7.2 TO SEEK MODIFICATION OF THE PUBLIC RIGHTS OF WAY NETWORK TO IMPROVE ACCESS TO THE SITE FOR CYCLISTS AND HORSE-RIDERS IN APPROPRIATE LOCATIONS.**
- AR-7.3 TO ALLOW PERMISSIVE ACCESS TO DEFINED PATHS FOR ALL USERS, IN ASSOCIATION WITH A CODE OF CONDUCT FOR MOUNTAIN BIKERS AND HORSERIDERS.**

There are numerous public access points to the site, some are from public roads where all users have a legal right of access, whilst other accesses are restricted to walkers ie public footpaths which cross adjacent land. Numerous public rights of way and other tracks cross the site. However, there is only one public bridleway (where horseriding and cycling are permitted). The fact that much of the area is Registered Common Land does not confer a general right of access. The Countryside and Rights of Way Act will, by 2005, ensure that walkers have open access to all the Registered Common Land, but this right will not extend to horseriders or cyclists.

Cheltenham Borough Council, as the owners of the site could allow permissive access for horseriders and cyclists, with the opportunity to withdraw access permission if problems, such as safety or erosion, arose in the future. However as the bridleway, which terminates at a public footpath, does not permit access through the site it is recommended that a more permanent solution is put in place.

The local branch of the British Horse Society and the Cheltenham and County Cycling Club have submitted proposals for revisions to the rights of way network. Although submitted independently, broadly, they suggest that the same public footpaths are upgraded to public bridleways. Clearly they are proposing what they consider to be their ideal scenario which would upgrade a large number of footpaths to bridleways and greatly extend their access opportunities.

A compromise is recommended which involves the upgrading of a limited number of footpaths to bridleways and the granting of permissive access over other tracks. Note that footpath ZCK58 does not follow the old turnpike road exactly, so a path creation order may need to be sought to create the bridleway as suggested below. This would enable horseriders and cyclists formal access to a vastly improved network of paths. The remainder of the tracks should be available to cyclists and horseriders on a permissive basis, which will allow Cheltenham Borough Council the opportunity to periodically review the effects of access, particularly on areas of biological and archaeological interest, and to revise access opportunities as required. Permissive access should be accompanied by codes of conduct for horseriders and cyclists with the aim of minimising conflicts between different users, preventing damage to ecological and archaeological assets and improving visitor/user safety.

Specimen codes of conduct are included in Appendices 18 and 19. These should be modified in consultation with local cyclists and horseriders to achieve codes of conduct that suit the specific conditions of Leckhampton Hill and Charlton Kings Common.

Modification of the rights of way network will require the consent of the Highways Authority, through the Rights of Way Section at Gloucestershire County Council. This will incur a charge and will need to be put out to public consultation. If there are significant objections to the proposals a local inquiry may be required.

Recommended modifications to the rights of way network are indicated on the map below. In addition consideration should be given to the negotiation of access for horses from the Cirencester Road (in the vicinity of 'Black Barn') to Sandy Lane. This is not included on the map as it will involve a right of way modification or creation over land that is owned, but not controlled, by Cheltenham Borough Council.



**OBJECTIVE AR-8****TO DEFINE A SUITABLE MOUNTAIN BIKE SLALOM COURSE WHERE MOUNTAIN BIKES HAVE PRIORITY.**

Careful consideration has been given to the potential conflicts that could result from the widespread use of mountain bikes, in particular health and safety concerns caused by excessive speed and damage to sensitive environmental assets. It is essential that mountain bikers use the site in harmony with other users, but the nature of the sport is likely to give rise to more conflicts than any other user group.

Permissive access along all tracks, in conjunction with the adoption of a code of conduct for mountain bikers, has been recommended earlier. Such a code of conduct is likely to prevent cyclists, in particular down-hillers, from enjoying their sport. Therefore it is recommended that a downhill slalom course, where mountain bikers have priority, be established in the woodland. This plan does not recommend a particular route as the line would need to be determined in consultation with the mountain bikers and other users. However, the following would need to be fully considered.

- Locating the route where it did not cross paths used by other visitors.
- The environmental sensitivity of the route.
- The need to provide warning signs.
- The need to clear vegetation to allow reasonably safe passage of mountain bikes.
- The need to define the severity of the route.
- Legal implications arising from a fall whilst using the route or collision with another user.

### **Summary of Access and Recreation Recommendations (RAR-01 - RAR-15)**

- |        |  |
|--------|--|
| RAR-01 | Prohibit access by 4x4s and motorcycles.   |
| RAR-02 | Provide well maintained car parks and access points.   |
| RAR-03 | Provide a site guide.  |
| RAR-04 | Provide orientation panels in car parks.   |
| RAR-05 | Install finger-posts and limited waymarking to enable easy route-finding.                                    |
| RAR-06 | Resolve erosion around toposcope.  |
| RAR-07 | Undertake a comprehensive scheme of seating and viewpoint refurbishment.                                     |
| RAR-08 | Provide wheelchair access from Brownstone Car Park.  |
| RAR-09 | Implement a hierarchical prioritisation for path maintenance.  |
| RAR-10 | Seek a civil engineering solution to repair very badly eroded tracks.  |
| RAR-11 | Work in partnership with Cotswold Way Team to provide disabled access in the vicinity of Salterley Car Park. |
| RAR-12 | Work in partnership with the National Star Centre to develop access for all solutions.                       |
| RAR-13 | Seek modifications to the rights of way network to improve access for horses and cycles.                     |
| RAR-14 | Allow permissive access to the whole network of paths for horses and cycles, but monitor the impact of use.  |
| RAR-15 | Define a mountain bike slalom course in consultation with users.   |

# **PART FOUR.**

# **APPENDICES**

## **APPENDIX 1.**

### **BIBLIOGRAPHY**

#### **Landscape**

A Future Challenge - Cotwolds AONB Management Strategy (CAONBJAC, 1996)

#### **Biodiversity**

Leckhampton Hill SSSI Site Management Plan 1992-1996, Gloucestershire Wildlife Management Ltd

National Vegetation Survey, Phase One Survey Map - Leckhampton Hill and Charlton Kings Common SSSI, Cheltenham Borough Council, 2000

Site Management Statement - Leckhampton Hill and Charlton Kings Common SSSI, English Nature Feb 1998, Feb 1999 and Dec 1999

Gloucestershire Biodiversity Action Plan

#### **Geology**

The Geodiversity Conservation Aspects of Leckhampton Hill SSSI, Geode Consulting Nov 2001

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**History**

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Ancient Ridge and Furrow at Daisybank, FOLK Newsletter. (Terry Scott-Moore)

**Access**

Footpaths - A Practical Handbook (revised edition), Elizabeth Agate (BTCV Website)

BT Countryside for All Standards and Guidelines, British Telecom and the Fieldfare Trust

## **APPENDIX 2.**

### **USEFUL ADDRESSES**

#### **ACCESS AND RECREATION**

##### **British Horse Society**

William Reddaway, County Access and Bridleways Officer, BHS, 46  
Prestbury Rd, Cheltenham GL52 2DA (Tel. 01452 522550)

##### **Cheltenham and County Cycling Club**

James Rockhill, Coordinator Mountain Biking, Flat 3, 37 Selkirk Street,  
Cheltenham GL52 2HJ (Tel. 01242 252039)

##### **Countryside Agency**

The Countryside Agency, Bridge House, Sion Place, Clifton Down, Bristol  
BS8 4AS (Tel. 0117 973 9966)

##### **Gloucestershire Soaring Association**

Barrie Shayler, 9 Warden Hill Rd, Cheltenham, Glos GC51 5AU

##### **Malvern Hang Gliding Club (Hang-gliding and Paragliding)**

Dr Robert Davis, 5 Lansdown Parade, Cheltenham GL50 2LH (Tel. 01242  
254935)

or

John Bevan, 1 Highland Drive, Bewdley DY12 2EZ

##### **Ramblers Association**

John Newbury, Footpath Secretary, Local Group of Ramblers' Association,  
42 Broad Oak Way, Cheltenham GL51 5LG (Tel. 01242 705484)

#### **ARCHAEOLOGY**

##### **County Archaeology Service**

Nick Russell, Gloucestershire County Council Archaeology Service, Shire  
Hall, Westgate Street, Gloucester GL1 2TH (Tel. 01452 425688)

**Sites and Monuments Record**

Tim Grubb, SMR Officer, Gloucestershire County Council Archaeology Service, Environment Dept, Shire Hall, Gloucester GL1 2TH (Tel. 01452 425705)

**English Heritage**

Richard Massey, English Heritage, 29/30 Queen Square, Bristol BS1 4ND (Tel. 0117 975 0700)

**Gloucestershire Society for Industrial Archaeology**

Dr Ray Wilson, Hon Sec GSIA, Oak House, Hamshill, Coaley. Dursley, Glos. GL11 5EH (Tel. 01453 860595)

**Industrial Archaeology Consultant**

David Bick, Pound House, Newent, Glos GL18 1PS (Tel. 01531 820650)

**BIODIVERSITY****English Nature**

Somerset and Gloucestershire Team, Bronsil House, Eastnor, Ledbury, Herefordshire HR8 1EP (Tel. 01531 638500)

**Gloucestershire Environmental Data Unit**

Ian Carle, GEDU, Church House, Standish, Stonehouse, Glos GL10 3EU (Tel. 01453 822761)

**Gloucestershire Wildlife Trust**

Dulverton Building, Robinswood Hill Country Park, Reservoir Road, Gloucester GL4 6SX (Tel. 01452 383333)

**COUNTY RECORDERS** (Details Supplied by the Gloucestershire Environmental Data Unit)

**Birds:**

Gordon Avery, 12 Hemmingsdale Road, Hempsted, Gloucester GL2 5HN (Tel. 01452 305002)

- **Cheltenham Bird Club**  
Frances Meredith, (Secretary), 14 Greatfield Drive, Charlton Kings,  
Cheltenham GL53 9BU (Tel. 01242 516393)
- **British Trust for Ornithology Representative:** Mike Smart, 143  
Cheltenham Road, Gloucester GL2 0JH (Tel. 01452 42113)

#### **Mammals:**

Mervyn Greening, 42 Orchard Rise, Tibberton, Glos GL19 3AT (Tel. 01452 790492).

- **Gloucestershire Bat Group:** Sheila Nicholls, 2 Sandfield Road,  
Churchdown, Gloucester (Tel. 01452 712406).

#### **Reptiles & Amphibians:**

Colin Twissell, Arfonia, The Green, Churchdown, GL3 2LE (Tel. 01452 714413).

#### **Invertebrates:**

##### **Gloucestershire Invertebrate Group (GIG):**

Keith Alexander, 14 Partridge Way, Cirencester, Glos GL7 1BQ (Tel. 01285 651171)

- **Butterflies:** Guy Meredith, 23 Highland Road, Cheltenham, Glos  
GL53 9LU (Tel. 01242 524138).
- **Moths:** Roger Gaunt, Firtree Cottage, St.Briavels, Lydney, Glos  
GL15 6SB (Tel. 01594 530475).
- **Dragonflies:** Ingrid Twissell, Arfonia, The Green, Churchdown, GL3  
2LE (Tel. 01452 714413).
- **Hoverflies and Ladybirds:** David Iliff, Green Willows, Station Road,  
Woodmancote, Cheltenham, Glos GL52 9HN (Tel. 01242 674398)

- **Ants, Bees & Wasps:** Tony Taylor, 16 Brecon Close, Quedgeley, Gloucester GL2 4TS (01452 728734); e-mail: anthony.taylor@royagcol.ac.uk.
- **Grasshoppers, Bush-Crickets, Earwigs, & Cockroaches:** Alan Wake, 73 New Barn Lane, Cheltenham GL52 3LB (Tel. 01242 578144).
- **Spiders:** David Haigh, 27 St.Luke's Road, Cheltenham, Glos GL53 7JF (Tel. 01242 513544).
- **Woodlice, Centipedes, Millipedes, Harvestmen & Freshwater Invertebrates:** David Scott-Langley, 11 Overhill Road, Cirencester, Glos GL7 2LG (Tel. 01285 655442)
- **Bugs, Beetles (other than Ladybirds), Sawflies, Flies (other than Hoverflies), Bark Flies & False Scorpions:** Keith Alexander, see Invertebrates above.
- **Land & Freshwater Molluscs:** David Long, 20 Hall Road, Leckhampton, Cheltenham, Glos. GL53 0HE (Tel. 01242 527673)
- **Ectoparasites (Fleas, lice, louse-flies):** Robin Sellers, Crag House, Ellerslie Park, Gosforth, Cumbria. CA20 1BL (Tel. 01946 725453)

**Flowering Plants, Ferns & Stoneworts:**

Mark and Clare Kitchen, The Cottage, Bevington, Berkeley, Glos GL13 9RB (01453 810958).

**Mosses And Liverworts:**

Peter Martin, 60 West Street, Tetbury, Glos GL8 8DR.

**Fungi:**

Jack Marriott, St.Swithin's House, Oldcroft, Lydney, Glos. GL15 4NF  
(Tel.01594 510295)

**CHELTENHAM BOROUGH COUNCIL**

Green Environment, Central Depot, Swindon Road, Cheltenham. GL51 9JZ.  
(Tel. 01242 250019)

**COMMOM LAND**

**Local Information**

Jeanette Wilson, Register of Commons, Corporate Services Dept,  
Gloucestershire County Council (Tel 01452 425221)

**National Information**

DEFRA, Countryside Division, Common Land Branch, Zone 105, Temple  
Quay House, 2 The Square, Temple Quay, Bristol BS1 6EB.

**COTSWOLD WAY NATIONAL TRAIL**

Jo Ronald, Cotswold Way National Trail, Malt House, Standish, Stonehouse  
GL10 3DL (Tel. 01453 827004)

**COTSWOLDS AREA OF OUTSTANDING NATURAL BEAUTY PARTNERSHIP**

Cotswold AONB Partnership, Old Police Station, Cotswold Heritage Centre,  
Northleach, Gloucestershire GL54 3JH

**DEPARTMENT FOR ENVIRONMENT FOOD AND RURAL AFFAIRS (Grant  
Schemes)**

**Countryside Stewardship Scheme**

DEFRA (RDS), Block 3, Government Buildings, Burghill Road, Westbury-on-  
Trym, Bristol BS10 6NJ (Tel. 0117 959 1000)

### **Environmentally Sensitive Areas Scheme**

Cotswolds Hills ESA Project Officer, DEFRA, RDS, Block B, Government Buildings, Whittington Rd, Worcester, WR5 3LQ (Tel. 01905 768903)

### **FRIENDS OF LECKHAMPTON HILL AND CHARLTON KINGS COMMON**

#### **Chairman**

Julius Marstrand, The Elms, 74 Copt Elm Road, Charlton Kings, Cheltenham GL53 8AW (Tel. 01242 518846)

#### **Secretary**

Jack Shepherd, Rainbow Cottage, Leckhampton Hill, Cheltenham, GL53 9QJ (Tel.01242 515902)

### **GEOLOGY**

#### **English Nature:**

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#### **Gloucestershire Geoconservation Trust**

Geological Records Unit, The Tithe Barn Centre, Brockworth, Gloucester GL3 4QU .Tel: 01452 864438

### **PUBLIC RIGHTS OF WAY**

#### **Highway Records**

Gloucestershire County Council, Environment Dept., Shire Hall, Gloucester, GL1 2TH (Tel. 01452 426398)

#### **Public Rights of Way Operations Team**

Gloucestershire County Council, Environment Dept., Shire Hall, Gloucester, GL1 2TH

**APPENDIX 3.  
NUMBERED ACCESS POINTS**

<b>No</b>	<b>Access Point</b>	<b>RoW</b>	<b>Location</b>	<b>Official Designation</b>	<b>Use</b>
01	Middle Incline	ASH 34	Adjacent to Tramway Cottage	FP	FP
02	Beech Wood	-	From Daisybank Road Car Park	None	FP, Bikes & Horses
03	Steps	ASH 44	From Daisybank Road Car Park	FP	FP, Bikes & Horses
04	Parallel to Road	-	From Daisybank Road Car Park	None	FP, Bikes & Horses
05a	Bank up		From the Old Bridge on Daisybank Road [West]	None	FP, Bikes & Horses
05b	Standard Gauge Incline South [Stile]	ASH 43	From the Old Bridge on Daisybank Road	FP	FP, Bikes
05c	Stile	-	From the Old Bridge on Daisybank Road [East]	None	FP
05d	Bank up	-	From the Old Bridge on Daisybank Road [East]	None	FP, Bikes & Horses
06	Footpath	ASH 41	West of Underscar [opposite ZCH 83]	FP	FP
07	Footpath	ASH 39	East of Underscar	FP	FP
08	Daisybank Road	ZCK 56	From end of adopted road	RUPP	FP, Bikes, Horses & Cars
09a	Sandy Lane	-	Top of adopted section [tarmac surface] of Sandy Lane	Unclassified Road	FP, Bikes, Horses & Cars
09b	Sandy Lane	-	Old Turnpike Road	Unclassified Road	FP, Bikes, Horses & Cars
09c	Sandy Lane	ZCK 56	Off Old Turnpike Road	FP	FP & Bikes
10a	Lilley Brooke Golf Course	ZCK 59	From Cirencester Road [adjacent to Jennings Grove, opposite 'The Larches']	FP	FP
10b	Mountain Knoll Wood	ZCK 59	From Golf Course	FP	FP
11a	Cirencester Road	ZCK 58	From Cirencester Road [opposite 'Shepherds Fold']	FP	FP, Bikes & Horses
11b	Footpath	ZCK 58	From field to Old Turnpike Road [The Gallops]	FP	FP, Bikes & Horses
11c	Wall	-	From field to Old Turnpike Road [The Gallops]	None	FP, Bikes & Horses
12	Field Gate [connects to 11b & 11c]	-	From Cirencester Road [opposite 'Brecon House']	None	FP, Bikes & Horses
13a	Lower Field	ZCK 60	From Cirencester Road	FP	FP
13b	The Gallops	ZCK 60	From Lower Field, at junction with Cotswold Way	FP	FP
14	Hartley Lane	ACO 6	Old Turnpike Road, adjacent to Minatour Barn	FP	FP, Bikes, Horses & Cars

No	Access Point	RoW	Location	Official Designation	Use
15	The Gallops	ZCK 60	Old Turnpike Road, at junction with Cotswold Way	FP	FP, Bikes, Horses & Cars
16	Cotswold Way National Trail East	ZCK 65	Cowslip Field	FP	FP, Bikes & Horses
17a	Hartley Farm	ACO 1	Gate from Hartley Farm	FP	FP & Bikes
17b	Ruined Barn	ACO 1	Stile	FP	FP & Bikes
17c	Gate	ACO 1	Into Site	FP	FP & Bikes
18	New Access Gate	-	Into corner of Hartely Farm Field [adjacent to end of Pro-Flex Alley]	None	Maintenance Plant
19	Bridleway Gate	ASH 47	Gate from Pro-Flex Alley/The Motorway	Permissive BW	FP, Bikes, Horses & Disabled
20	New Access Gate	[ASH 40]	Off Headland in Hill Farm Field	FP	Maintenance Plant
20	Gate Adjacent to Brownstone Car Park	ASH 47	Entrance to 'Pro-Flex Alley/The Motorway'	Permissive BW	FP, Bikes, Horses & Disabled
21	Turning off Hartley Lane	ACO 8	Track to Hill Farm	FP	FP, Bikes, Horses & Cars
22a	Entrance to Brownstone Car Park	-	Off Track to Hill Farm	None	FP, Bikes, Horses & Cars
22b	Entrance to Brownstone Car Park	-	Off Track to Hill Farm	None	FP, Bikes, Horses & Cars
23	Over Bank from Brownstone Car Park	-	Shortcut through scrub	None	FP & Bikes
24	Hill Farm Track	ASH 40	Surfaced track through Hill Farm	FP	FP & Bikes
25	Proposed Gate on Hill Farm Track	ASH 40	Adjacent to muck heap	FP	FP, Bikes & Disabled
23	Kissing Gate	ASH 45 & 46	Off corner of Farm Track	FP	FP
24a	Weather Station Gate	-	Surfaced road to wartime weather station	None	FP & Bikes
24b	Kissing Gate	-	Adjacent to Weather Station Gate	?	FP & Bikes
25	Plant Access [from Hill Farm]	-	Adjacent to West Gate of Iron Age Fort	None	Maintenance Plant
26	Cotswold Way National Trail West	ASH 36	Off Hartley Lane adjacent to Salterley Quarry	FP	FP, Bikes & Horses
27	Salterley Car Park	-	Access to Cotswold Way from Salterley Quarry	None	FP
28	Salterley Car Park	-	Access to Hill from West side of Salterley Quarry	None	FP

No	Access Point	RoW	Location	Official Designation	Use
29a	Salterley Lane [to ASH 35]	-	Access from Salterley Lane opposite Firsbrake Field	None	FP, Bikes & Horses
29b	Salterley Lane	ASH 35	Access from Salterley Lane adjacent to last house	FP	FP, Bikes & Horses
30a	Bridleway from Leckhampton Road	ASH 33	Between 'Ashmead Cottage' & 'Gailadies'	BW	FP, Bikes, Horses & Cars
30b	Bridleway onto Site	ASH 33	Between 'Trees' & 'Ashmead House'	BW	FP, Bikes & Horses
31	Daisybank Road	-	Between 'Ashmead Lodge' & 'Cornerways'	Adopted	FP, Bikes, Horses & Cars
32	Proposed Gate into Daisybank Fields	-	Opposite Daisybank Road Car Park	None	Maintenance Plant
33	Daisybank Fields from Daisybank Road	-	Adjacent to Old Bridge, North of Daisybank Fields	None	FP, Bikes & Horses
34	Standard Gauge Incline North	ZCH 93	Adjacent to Old Bridge, North of Daisybank Fields	FP	FP, Bikes & Horses
33	Footpath	ZCH 83	Opposite ASH 41 [Between 'Daisybank House' & 'Fir Cottage' - Outside Site]	FP	FP
34a	Southfield Manor	TBA	From top of the tarmac section of Sandy Lane around South side of Manor	FP [Modification]	FP & Bikes
34b	Southfield Manor	TBA	Across Fields to South West of Southfield Manor to join Standard Gauge Incline	FP [Modification]	FP & Bikes
35a	Southfield Manor	ZCK 66	From top of the tarmac section of Sandy Lane through Southfield Manor	FP	FP & Bikes
35b	Highland Road	ZCK 66	Adjacent to old Winding Pit at end of Highland Road	FP	FP & Bikes
36	Highland Road	ZCH 84 & 93	Bottom of Standard Gauge Incline	FP	FP, Bikes & Horses
37	Milford Road	ZCH 83 & 94	Bottom [North] of Daisybank Fields	FP	FP, Bikes
38	Stile into Under cliff Avenue	ZCH 95	West of Daisybank Fields	FP	FP

**APPENDIX 4.  
ENGLISH NATURE CITATION. LECKHAMPTON HILL AND CHARLTON KINGS COMMON  
SITE OF SPECIAL SCIENTIFIC INTEREST**

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.

An element of both broad-leaved and coniferous woodland occurs, including stands of mature beech *Fagus sylvatica*, secondary ash woodland on scree slopes, hazel *Corylus avellana* coppice and conifer plantations. This adds a woodland component to the flora with local species such as ivy broomrape *Orobanche hederæ*, white helleborine *Cephalanthera damasonium*, and greater butterfly-orchid *Platanthera chlorantha* present.

The site supports a variety of insects with a total of 33 species of butterfly recorded including small blue *Cupido minimus*, chalkhill blue *Lysandra coridon* the uncommon duke of burgundy fritillary *Hamearis lucina* and pearl-bordered fritillary *Boloria euphrosyne*. One species of hoverfly that has been recorded, *Leptarthus brevirostris* is nationally scarce.

The site has a strong population of the adder *Vipera berus*.

### Geology

The Leckhampton quarries provide the thickest single cross-section through the Middle Jurassic, Inferior Oolite strata of the Cotswolds. Leckhampton has been the subject of innumerable published geological accounts in the last one hundred and fifty years and, in addition to its research interest, provides an educational locality of the first order. Strata totalling sixty metres in thickness are exposed, including elements of the Lower, Middle and Upper Inferior Oolite. These large outcrops are invaluable to the student of palaeontology or the sedimentology of limestones and for studies of ancient environments as a whole. These are nationally important exposures vital to Jurassic research and education.

**APPENDIX 5.  
LOCATION OF ON-SITE FEATURES, NEARBY FEATURES AND OFF-SITE  
CONTEXT**

No	Feature	Grid Reference	Location
<b>LECKHAMPTON HILL</b>			
<b>Car Parks</b>			
LP01	Daisybank Road	SO 9495 1885	Adjacent to Tramway Cottage
LP02	Old Bridge	SO 9513 1888	Adjacent to Old Bridge [q.v.]
LP03	Salterley Quarry	SO 9465 1765	Off Salterley Road
LP04	Brownstone Quarry	SO 9505 1790	Off track to Hill Farm
<b>Industrial Archaeology</b>			
<b>Buildings</b>			
LB01	Tramway Cottage	SO 9493 1885	Daisybank Road [Built 1897, destroyed by rioters 15.07.1902 & rebuilt by Good Friday 1906]
LB02	Former Electrical Plant House	SO 9491 1859	Limekilns Quarry
LB03	Limekilns 1-4	SO 9486 1855	Limekilns Quarry
LB04	Old Bridge	SO 9513 1888	Intersection of Standard Gauge Incline & Daisybank Road
LB05	Generating Station	SO 9563 1947	Southfield Manor
LB06	Site of Wartime Weather Station	SO 9484 1838	Inside East Gate of Iron Age Fort
LB07	Ordnance Survey Trig Point	SO 9490 1838	On rampart between site of Weather Station & Round Barrow
LB08	Toposcope	SO 9465 1840	In Iron Age Fort above Dead Man's Quarry
<b>Features</b>			
LF01	Devil's Chimney	SO 9464 1840	Below Dead Man's Quarry
LF02	Standing Stone	SO 9470 1847	On ASH 36 between Limekilns & Dead Man's Quarries
LF03	Memorial to George Price, Leckhampton Rioter	SO 9460 1794	In corner above Firsbank Quarries
LF04	Butterfly Valley	SO 9480 1847	Northern Rampart of Iron Age Fort
<b>Quarries</b>			
LQ01	Salterley (Wagon) Quarry	SO 9465 1765	Off Salterley Road
LQ02	Firsbrake Quarry	SO 9455 1800	South of Ferncliff Quarry
LQ03	Ferncliff Quarry	SO 9455 1825	South of Trye's Quarry
LQ04	Trye's (Devils Chimney) Quarry	SO 9465 1830	South of Dead Man's Quarry

LQ05	Devils Chimney	SO 9465 1830	
LQ06	Dead Man's Quarry	SO 9475 1843	South West of Limekilns Quarry
LQ07	Limekilns Quarry	SO 9488 1857	Top of Standard Gauge Incline
LQ08	Middle Limekilns Quarry	SO 9493 1852	Above Limekilns Quarry
LQ09	Upper Limekilns Quarry	SO 9493 1849	Above Middle Limekilns Quarry
LQ10	Brownstone Quarry	SO 9505 1790	Off track to Hill Farm
LQ11	Incline Quarry	SO 9505 1865	East of Standard Gauge Incline
LQ12	Daisybank Quarry	SO 9520 1885	East of Incline Quarry, adjacent to ASH 39 & 44
<b>Inclines</b>			
LI01	Incline N° 1	SO 9465 1837 (top)	Devil's Chimney Incline [Built c.1795; Used until c.1830] Gradient 1 in 2.7
LI02	Incline N° 2	SO 9488 1938 (bottom) to SO 9482 1913	Bottom Incline [circa 1810; Used until 1924] Gradient 1 in 5.1
LI03	Incline N° 3	SO 9492 1881 (bottom) to SO 9491 1859	Middle Incline, [Built c.1810; Used until 1924] Gradient 1 in 3.5
LI04	Incline N° 4	SO 9493 1857 (bottom) to SO 9500 1848	Top Incline, from Upper, to Lower Limekilns Quarry [Built c. 1830; Used until 1924] Gradient 1 in 2.1
LI05	Incline N° 5	c. SO 9479 1858 (bottom) to c. SO 9478 1853	Unnamed Incline [Built c.1830; Used until c.1850]
LI06	Incline N° 6	c. SO 9474 1854 (bottom) to c. SO 9472 1846	Dead Man's Incline [Built c.1904; Used until c.1920] Gradient 1 in 2.8
LI07	Incline N° 7	c. SO 9490 1856 (bottom) to c. SO 9481 1853	Unnamed Incline [Built c.1920; used until c.1922] Gradient 1 in 3.5
LI08	Standard Gauge Incline	SO 9491 1858 (top)	[Built circa 1924] Gradient 1 in 3.5
<b>Tramroads</b>			
LT01	To Brownstone Quarry	SO 9500 1848 to 39508 1848	Across top of hill
LT02	South from focal point of railways	c. SO 9491 1858 to 39561 1849	Contours around West face of hill
LT03	Daisybank Road	SO 9482 1913 to 39492 1881	Links Bottom and Middle Inclines
<b>Ancient Archaeology</b>			
LA01	Iron Age Fort	SO 9480 1838	Top of Leckhampton Hill
LA02	Iron Age Fort East Gate	SO 9490 1835	East end of Iron Age Fort, adjacent to Round Barrow
LA03	Iron Age Fort West Gate	SO 9470 1830	West end of Iron Age Fort
LA04	Round Barrow	SO 9492 1839	East of Iron Age Fort

<b>Places</b>			
LP01	Larch Plantation	SO 9520 1870	Between Incline & Daisybank Quarries
LP02	'Bomb Hole'	SO 9470 1830	Outside West Gate of Iron Age Fort
LP03	Slalom course	SO 9500 1858	Between ASH 33, ASH 37 & Incline Quarry
	Pro-Flex Alley	SO 9520 1820	Permissive Bridleway between Brownstone Quarry & Charlton Kings Common ASH 47
<b>CHARLTON KINGS COMMON</b>			
<b>Car Parking</b>			
CP01	Sandy Lane	SO 9580 1944	Bottom of unmade section
CP02	Lay-by on Hartley Lane	SO 9655 1775	West of Minatour Barn
<b>Quarries</b>			
CQ01 (13 on map)	Charlton Kings Quarry	SO 9540 1870	East of ASH 39
CQ02 (14 on map)	Charlton Kings Craggs	SO 9550 1850	East of Charlton Kings Quarry, high on scarp slope
CQ03	Pit Turning Circle	SO 9570 1860	Off Daisybank Road, North East of Charlton Kings Craggs
<b>Features</b>			
CF01	Five Ways	SO 9610 1870	Intersection of Daisybank Road RUPP, the Old Turnpike Road [Sandy Lane & The Gallops] & the Bridleway
CF02	Mountain Knoll Wood	SO 9620 1870	Adjacent to Five Ways
CF03	Sandy Lane	SO 9600 1885	Old Turnpike Road running North from Five Ways
CF04	The Gallops	SO 9620 1850	Old Turnpike Road running South East from Five Ways
CF05	Cowslip Field	SO 9650 1805	At South East end of Charlton Kings Common
CF06	Windass Hill	SO 9595 1855	Bridleway CK57 down Roman track from Charlton Kings Common to Five Ways
CF07	Goat Steps	SO 9605 1862	Bottom of Windass Hill
CF08	Horse Barriers	SO 9630 1815	On Cotswold Way at South East end of Charlton Kings Common
CF09	Old Schooling Ring	SO 9595 1850	On top of Charlton Kings

			Common
CF10	Jubilee Scots Pines	SO 9685 1850	Adjacent to Old Schooling Ring
CF11	Hang-gliding launch point	SO 9680 1850	Above Charlton Kings Crags
<b>DAISYBANK FIELDS</b>			
<b>Places</b>			
DF01	Standard Gauge Incline [North]	SO 9530 1915	Eastern side of Fields
DF02	Ridge & Furrow System	SO 9520 1920	Whole Area
DF03	Bike Jumps	SO 9510 1898	Adjacent to Standard Gauge Incline near top
<b>OFF-SITE CONTEXT</b>			
<b>Neighbouring &amp; other Significant Properties</b>			
ON01	Charlton Kings Railway Station	SO 9645 1970	Where stone used to be transferred to main line railway
ON02	Cheltenham Park Hotel	SO 9645 1960	Formerly ?
ON03	Lilley Brooke Golf Club	SO 9645 1935	
ON04	'The Larches' [with stables]	SO 9665 1885	Opposite ZCK 59
ON05	'Shepherds Fold'	SO 9670 1820	Opposite ZCK 58
ON06	'Brecon House'	SO 9670 1815	Opposite Field Gate
ON07	Bus Stops	SO 9665 1810	Adjacent to Field Gate [good for non-car access!]
ON08	Private Road to 'Brecon House [formerly 'Black Barn' Stables] & Vineyard Farm	SO 9670 1800	Opposite Field Gate
ON09	Seven Springs Junction	SO 9690 1710	
ON10	'Windmill Farm'	SO 9680 1740	
ON11	Stables	SO 9685 1750	
ON12	'Minatour Barn'	SO 9670 1780	On the corner of Hartley Lane adjacent to the old Turnpike Road
ON13	'Hartley Farm'	SO 9565 1790	South of Charlton Kings Common
ON14	Ruined Barn	SO 9570 1820	
ON15	Crickley Hill Walk	SO 9570 1820	
ON16	'Hill Farm'	SO 9490 1805	West of Brownstone Quarry
ON17	'Hartley House'	SO 9500 1780	
ON18	'Firsbrake'	SO 9440 1785	

ON19	'Beech Crest'	SO 9440 1790	
ON20	'Flight Farm'	SO 9940 1800	
ON21	Lay-by	SO 9440 1810	
ON22	'Ferncliff'	SO 9440 1825	
ON23	'Owls Barn'		
ON24	'Hunterston'		
ON25	'Highland House'		
ON26	Bus Stop		
ON27	'Criagside Cottage'		
ON28	'Rockholme'		
ON29	'Pen Cerrig'		
ON30	'Leckhampton Grange'		
ON31	'Springwood'	SO 9950 1850	
ON32	Lay-by	SO 9955 1860	
ON33	'Coney Gree'		
ON34	'Cotteswold Cottages'		
ON35	'Cotteswood'		
ON36	'Barn Mews'		
ON37	'Ashmead Cottage'	SO 9480 1880	
ON38	'Gailadies'	SO 9485 1885	
	Bridleway		ASH 33
ON39	'Ashmead House'	SO 9485 1875	
ON40	'Trees'	SO 9490 1870	
ON41	'Beech Cottage'	SO 9485 1890	
ON42	'Ashmead Lodge'	SO 9490 1890	RHS Daisybank Road
ON43	'Cornerways'	SO 9490 1895	LHS Daisybank Road
ON44	'Highlands'		LHS Daisybank Road
ON45	'Highfield'		LHS Daisybank Road
ON46	'High Elm'		LHS Daisybank Road
ON47	'Tramway Cottage'	SO 9495 1885	RHS Daisybank Road
ON48	Private Wood	SO 9525 1885	RHS Daisybank Road
ON49	'Daisybank House'	SO 9530 1895	LHS Daisybank Road
ON50	'Fir Cottage'	SO 9535 1895	LHS Daisybank Road
ON51	'The Stables'	SO 9540 1895	LHS Daisybank Road
ON52	Turning Space	SO 9545 1895	LHS Daisybank Road
ON53	'Larchlands'	SO 9540 1890	RHS Daisybank Road
ON54	'Underscar'	SO 9540 1885	RHS Daisybank Road
ON55	Private Road		LHS Daisybank Road
ON56	'Landscape'	SO 9545 1890	LHS Daisybank Road
ON57	Rear entrance to 'Landscape'		LHS Daisybank Road
ON58	Rear entrance to 'Underscar'		RHS Daisybank Road
ON59	'Holly Bush House'		LHS Daisybank Road
ON60	'Hereweare'		LHS Daisybank Road
ON61	Stowaway'		LHS Daisybank Road
ON62	Farm Sheds		LHS Daisybank Road
ON63	'Le Chalet'		LHS Daisybank Road
ON64	Turning Bay [by disused Pit]	SO 9560 1865	RHS Daisybank Road
ON65	'Mount Pleasant'		LHS Daisybank Road

ON66	'Casamia'		LHS Daisybank Road
ON67	'Windy Ridge'		LHS Daisybank Road
ON68	'The Spinney'		LHS Daisybank Road
ON69	Pit Turning Circle	SO 9575 1860	RHS Daisybank Road
ON70	'Shackleton'	SO 9575 1865	LHS Daisybank Road
ON71	Southfield Manor	SO 9560 1945	
<b>NEARBY OPEN AREAS</b>			
OO01	Cranham Common	SO 8970 1270	South West of Birdlip
OO02	Cranham Woods	SO 9070 1280	South West of Birdlip
	Buckholt Wood	SO 8970 1350	South West of Birdlip
	Witcombe Wood	SO 9150 1370	South West of Birdlip
OO03	Crickley Hill	SO 9290 1640	South West of Leckhampton Hill
OO04	Timbercombe Hill	SO 9710 1910	North East of Charlton Kings Common
OO05	Wistley Common & Ravensgate Hill	SO 9760 1860	East of Charlton Kings Common
OO06	Lineover Wood	SO 9860 1900	East of Wistley Hill
OO07	Dowdeswell Reservoir	SO 9900 1970	Proposed Country Park, North East of Lineover Wood
OO08	Cleeve Common	SO 9950 2590	North East of Dowdeswell Reservoir

## APPENDIX 6.

### COMMENTS FROM PUBLIC CONSULTATION MEETING

#### “THE HOPES AND FEARS FOR LECKHAMPTON HILL AND CHARLTON KINGS COMMON”

Everybody attending the Public Meeting at Leckhampton Primary School on Monday 18 March 2002 was asked to note their hopes and fears for the new management plan and how they wanted the Hill to be managed in the future. The views expressed have been used to shape the management plan and help define management objectives.

### HOPES

The following tables show all the comments from the ‘Hopes’ post-it-note session, divided in to appropriate categories. Additional comments from the Open Forum are shown in bold.

#### **General Comments**

Science and nature don't gel
Place where youngsters can be exposed to danger
Place kept clear of litter
Litter collection

#### **Maintain Character**

Keep the whole area as wild as possible
Minimum change only
Leave things very much as they are
No change
Like it was in the 60s wilder less intensively used
No change
No change
No change
Leave it as unspoilt as possible
Minimal change compatible with preserving SSSI
A little change please only conservation issues
No radical change
Minimal change
Minimal change to preserve present character
Hill should stay more or less the same
Tranquillity and peacefulness preserved
A place to breathe and enjoy wildness and nature
Wilderness to be preserved even in managed areas
Keep the Hill as a wild place

Conserve please don't manicure
Leave as a natural environment
Should we prevent change in the natural environment
Balance needed to cater for various issues needs
Preserve natural environment - most important
Tolerance
Walker/Cyclist/Horse-rider harmony
Clearer communication and understanding between interest groups
Long-term commitment to secure future management
Recreation for all interests
Reasonable access for walking within unspoilt environment
What about natural beauty
For free
Area retains its "wild nature"

### **The Plan**

Must be robust and pragmatic
All users to be treated as equals
Balance biodiversity and recreation
Use Hill in harmony with others
All users work harmoniously and enjoy
Respect for all interests
Mixture of wilderness and managed space
Enhance the Hill's natural features
A living Hill not a museum
All things to all men
A well, fairly-balanced plan
Don't kick this Plan in to touch
A mixture of open space and woodland
Area important for recreation and scientific interest
Realistic balancing of issues
Tolerance for all
No one groups opinion to take precedence
Fairness for all users

### **Access Improvements**

Upgrade tracks to bridleways
Sensitively improve Infrastructure
Open access at all times
Place some stony rubble on very muddy paths
Improvements to path surfaces
Better access to suit horses, walker and bikes
Need to improve footpaths and bridleways
Footpaths clear so you don't hit yourself in the face
Resting places with seats
Formal bridleway network over Hill, connecting to other areas
Maintain access for walkers
Stiles to restrict motorcycle access
Repair of Stiles and fences to keep bikes of Daisybank Field
Viewing Platform for Devil's Chimney

Tarmac Brownstone Car park
Footpaths maintained
Variety of marked paths for casual visitor
Better car parking on top area
Disperse visitors as widely as possible
Managed cycle activity
Paths kept clear
Continued access for children and their hobbies
Paths cleared and kept open
Improved footpaths and bridleways
Access for all at all times
Improved access for particular user groups
Maintenance of stiles and kissing gates
Better access to suit horses, walker and bikes
Reinstate footpaths on top of the Hill for disabled elderly
Maintain footpath access
Discretely signed routes across the Hill
Upgrade ROW under CROW
All weather paths for walkers, horses and cyclists
Better access for all
Equality of access for all users
Multiple access points for horses
Well maintained footpaths
Clarity of where we can and cannot cycle
Extensive bridleway network with circular routes
Access for bikes and motorcycles on clearly designated paths
Good access for all
Road open to cars and bikes
More access for horses
Open top of Charlton Kings Common
Continuation of Mountain Bike gateway to other areas
No 4x4s up Sandy Lane
Footpaths repaired (water erosion damage)
Encourage (rather than prohibit) horse use away from sensitive areas
Minimise erosion
Ban Motorbikes and cycles
Control erosion
Paths cleared for better access
Mountain bikes to be limited to areas that are not regularly walked
Don't want cycling on the grassland
Control cyclists

### **Woodland / Tree Management**

Trees are more important than rocks
Pollard some of the trees
Preserve oak and larch donated to the Hill
Beautiful trees (native) maintained and planted
Need to remove trees blocking best views from 'scarp
Dispose of trees after they are cleared
Leave important trees standing

## **Grassland and Scrub Management**

Some large areas cleared of trees and scrub to avoid town park appearance
Clear some scrub wood not all
Remove most of scrub and rubbishy trees
Too much scrub and trees
Will scrub clearance produce a habitat for barn owls
Enhance the SSSI by sensitive management
If scrub not controlled you get a jungle
No gorse
Management of grass by burning
Careful spring burning of last years grass (like they used to do)
Clear up cut scrub
Keep up re-establishment of grassland
Daisybank Fields to become a grass field not impenetrable scrub
Management for butterflies and limestone plants (grazed, burned, cut etc)
Clear scrub and reclaim ground for wildflowers
Cattle grazing
Go back 30 years when cows grazed the lower slopes (Cowslips were plentiful)
Any grazing to be temporary, preferably by cattle
Priority for conservation and restoration of limestone grassland
Grazing of grassland
Grassland managed without fencing and grazing
Management by grazing with agreed moveable temporary fencing
More wildflowers less trees
Improve grassland conservation
Attack the thistles and burn them.
Maintain scrub on Daisybank Fields
Clear more scrub

## **Species Conservation**

<b><i>There was almost unanimous agreement that "we want to see more orchids"</i></b>
Conservation of habitat for scarce breeding birds
Wild places full of birds
Abundance of butterflies and orchids
Conservation of habitat for birds
Cuckoos, larks, hares, woodpeckers
Protect and enhance rare plants and invertebrates
Wide diversity of wildlife
Well managed site for flora and fauna especially birds
Preservation of good blackberry sites
Look after the adders
Control scrub
Flora and fauna increases
Bird habitats must be preserved

## **Geology**

Preserve Chimney and protect from vandalism
Preservation of Devil's Chimney
Dinosaur footprints

## Information

**Information at car parks only is favoured (60-70% favoured this option)**

**No signs at all (10% favour this option)**

Signposting of special interests

Fingerpost to Devil's Chimney

Industrial Archaeology Information Boards

Interpret Industrial archaeology

Interpretation of industrial archaeology

Interpretation of earthworks based on geophysics

Better info about valuable features (wildlife, archaeology etc)

Discrete info boards (geology, history wildlife)

Interpretation of archaeology/industrial archaeology

More information in strategic places for educational visits

Info boards showing sites of interest

Interpretation boards for geological exposures

More info eg nature trails

Any chance of a birdwatching hide(s)

Better educational opportunities

Educational value realised in a low key way

## Archaeology

Recognition of archaeology

Tramway track bed to Southfield Farm is exposed

Reveal and conserve industrial archaeology

Archaeology to be preserved

Some restoration of limekilns to prevent further deterioration

Archaeology to be preserved

Industrial heritage to be traceable

More exposure of industrial archaeology sites

An old tram

Exposure of industrial archaeology, but minimal

Positive conservation of industrial archaeology

Spectacular Hill Fort

Clear hill fort area

Proper management of archaeology

Involvement of Archaeology Service/ English Heritage

## Management Structure

Self governing trust status

Continuation of voluntary groups for conservation as this contributes to community spirit and ownership

Commitment from CBC to funding for future management

More money from CBC to spend on all aspects of management

Resources to keep work in progress

£s to fulfil the new plan

## Warden

**There was almost unanimous agreement that the site should be wardened**

Warden control on a 7 day basis

Effective 7 day per week warden control
Use of wardens to help ensure safety
Needs a warden
Appointment of a Hill Warden/ Ranger
Warden to prevent bikes and horses
Full time Hill keeper
Warden to make the plan happen
A Hill Keeper
Hill Warden

**Safety**

Emergency telephone in Daisybank car park
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**Building**

No more residential houses
Keep at bay pressure to build close to the base of the Hill
Purchase rest of fields along Daisybank Rd to prevent house building

**Dogs**

No dog mess
Need more pooper scoopers
No dog pooh!
Dogs under control

**FEARS**

The following tables show all the comments from the 'Fears' post-it-note session, divided in to appropriate categories.

**General**

You will remove seasonal changes
Needs of the few are being put above the many
The original plan was perfect second a waste of money
The plan is already being instigated without public opinion being addressed
Too narrow a focus
Excessive damage to natural environment
People misinterpreting conservation management
Light pollution

**Over Development**

No country park
No visitor centre toilets
Commercial exploitation
Commercialisation

Don't want parkland
Don't want a manicured park
Commercialisation
Hill turned into Municipal park
Not a country park
Don't want too many visitors
Not commercialised
No not want managed country park with visitor centre
Not over organised
Does not develop too much
Not a Crickley Hill please
Our Hill is not over managed
Not to become a country park
Overuse - tourism
Not too much commercialisation
Not over managed
Fear country park
Too much urbanisation
Overuse
Over-popularised (Honey Pot)
Overuse
Urban creep, concrete paths
Loss of wild character
Don't want country park
You are turning in to a country park
No honey pot sites that encourage vandalism
You are taking away then natural beauty
Another Crickley Hill saga
Spoiling the natural beauty
Need to keep wild nature of the hill
Over management

### **Over Protection**

Not allowing new uses to be developed
---------------------------------------

### **Management Structure**

Failure to implement agreed man plan
Will the work be monitored and reviewed regularly?
Involvement of Archaeology Service and English Heritage
Why has work been done before decisions made?

### **Information**

No info about industrial/archaeological features
Too many notices
No signs everywhere
No signs everywhere

### **Tree and Scrub Management**

Too much shrubs taken away
Don't want cleared rubbish left
Felling too many trees to expose geological sites
Clear up after scrub removed
Will individually important trees be left standing
Paths overgrown
Paths overgrown
Preserve the Beech trees
Preserve the trees that were donated to the Hill (larch and oak)
Too much scrub
Do not remove too many trees
Don't want extensive removal of trees and scrub
Removal of trees on Sandy Lane could lead to abuse
Don't want removal of all beech trees
Cutting down of trees near golf course seems indiscriminate
Control the scrub
Remove brambles on Daisybank
Loss of grassland flowers
Blocked paths
Continued scrub encroachment of grassland
Scrub clearance is of great importance
Maintain scrub habitat for birds
Maintain habitat for bird life
Meadows overgrown with gorse and brambles
Not too much scrub clearance
Viewpoints obscured by trees
Scrub encroachment on grassland
Becoming overgrown with nettles and brambles
Loss of bird habitat
Fears extensive ash woodland
Trees blocking views of Devils Chimney
Save specimen Whitebeam near Sanverne

### **Grassland Management**

Fears loss of limestone grassland
Lack of resources to maintain cleared areas
No grazing
No grazing
No grazing

### **Fencing**

No fencing
No fencing
Fears increase in Barbed wire fencing
No fencing
No fencing
No fencing
No fencing

No fencing
No fencing and no stiles
No permanent fencing
No permanent fencing

**Wildlife Protection**

Destruction of foxes and badgers
No eradication of badgers
Save the snails
Rare animals disappearing
More access = more destruction of habitats
Protection for Wildlife
Loss of orchids

**Recreation - General**

Conflict of types of use
Will there be a code of conduct for users - will it work
One group shouldn't dictate to others
Conflict between different user groups
Limit certain activities detrimental to the grassland
Fears restriction on model aircraft (gliders)
Fears restriction on model aircraft (gliders)
Equality for all
Restrictions on access for existing activities
Keep access to the Hill open to all
Will any part of the Hill be closed to the general public?
Horses, cycles and dogs don't mix
Fears notices banning certain activities

**Archaeology**

Deterioration of Archaeological sites
Damage to the kilns
Importance not recognised
Why are trees being stacked against miners camp
Damage to the archaeological resource
Industrial Archaeology decay
Limekilns reinstate or demolish
Repair path to Devil's Chimney
Footpath from Highland Rd impassable after rain

**Access**

Closing part of the Hill to some users
Don't want restricted access
Fear access for vehicles to all areas
Restricted access
Lack of definitive ROW
Restricted access
Closure of shared access routes
Not too much easy access

Fears that there will be no disabled access
Restricted access
Appearance of Private Property notices (Old Bath Rd)
Fear footpath closures
Maintain access for walking and dogs
Lack of wheelchair access
Access fro the disabled
Don't degrade ancient rights (eg RUPPs)
Exclusion of access
CROW Act roadways
Better access from main roads
Loss of bridleway status for existing definitive ROW
Loss of bridleway status for definitive ROW not yet recorded
Keep formal bridleways
More suitable bridle paths
Bridleways not being given enough consideration
State of footpaths safe and clear
Formal Bridleways
90% of visitors are walkers
Fears change of use of tracks
The consultants do not a have a good knowledge of ROW
Lack of maintenance of paths and fences
Fences broken
Fear change of use of paths

### **Cars**

No further car access to Hill
No cars
No cars
No motor vehicles including along Sandy Lane
Traffic

### **Motor Cycles**

No motorbikes on Hill
No motorbikes on tracks leading to the Hill
No Motorbikes
No Motorbikes
Use of Motorcycles
No motorbikes
No motorbikes
Damage by motorbikes
Encountering Motorbikes without warning
No motorbikes
Motorbikes are churning up footpaths
Motorised vehicles on paths
Fears access to motor traffic
No motorbikes (noise)

## **Mountain Bikes**

No mountain bikes off tracks
Mountain Biking causing erosion
Damage from recreational use (eg Cycling)
Worried about damage to paths from bikes
Damage from cyclists
Control young mountain bikers
Overuse by certain activities eg bikes
Encountering bikes without warning
Cycles damaging paths
Mountain bikers making tracks through sensitive areas
Erosion from mountain bikes
Erosion from mountain bikes
Erosion of tracks by mountain banks
Damage to fencing by mountain bikers
Cycling on grassland
No bikes
Mountain Cyclists
Boring easy cycle tracks
Too much erosion by bikes

## **Horses**

No horse permits
No horses on footpaths
No Horse permits
Horse damage to path and wall at bottom path
Horse-riding curtailed
No Horse permits
No horse permits
Reopen Crippets Bridleway
No horse permits

## **Erosion**

Don't want an increase in erosion through overuse
Footpaths are starting to erode
Erosion/Overuse of paths
Erosion of paths
Rock falls

## **Parking**

Security
Pot holes

## **Rubbish**

Dumped cars in car parks
--------------------------

**Dogs**

Conflict of dogs and open grazing
Too many dogs
Dog fouling
Dog fouling
Dog fouling

**Safety**

Path above Salterley (Wagon) Quarry Car Park is unsafe
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**Building**

Encroachment of Building (Daisybank Road)
Fear Development (property)
Fear Building
No more building
Encroachment of buildings

## **APPENDIX 7. COUNTRYSIDE AND RIGHTS OF WAY ACT 2000: FACT SHEETS**

### **CROW ACT FACTSHEET 1: OVERVIEW**

The Countryside and Rights of Way Act 2000 will extend the public's ability to enjoy the countryside whilst also providing safeguards for landowners and occupiers. It will create a new statutory right of access and modernise the rights of way system as well as giving greater protection to Sites of Special Scientific Interest (SSSIs), providing better management arrangements for Areas of Outstanding Natural Beauty (AONBs) and strengthening wildlife enforcement legislation.

The Act is a balanced package of measures that will allow people to enjoy more of the countryside. It will help to conserve the rural environment, protect wildlife, and also ensure landowners can use the land to its best advantage.

What the Act does:

#### **Part I: Access**

The Act gives the public a new right of access to mountain, moor, heath, down and registered common land. It also recognises the needs of landowners and managers.

- the right will not extend to cycling, horseriding or driving a vehicle;
- landowners will be allowed to close land up to 28 days each year;
- there will not be access to gardens or parks or to cultivated land.

#### **Part II: Rights of Way**

The Act improves the rights of way legislation by encouraging the creation of new routes and clarifying uncertainties about what rights already exist.

- local authorities will be required to review and publish plans for improving rights of way in their areas, taking into account the needs of the public including disabled people;
- setting an end point, after 25 years, to the recording of certain rights of way on definitive maps;
- Roads used as Public Paths (RUPPs) will be redesignated as a new category of way known as a Restricted Byway having public rights of way for non-motorised users;

- a new right for landowners to apply to a council for orders diverting or extinguishing footpaths or bridleways and a right of appeal against refusals;
- occupiers of land to be given a right to make temporary diversions to footpaths and bridleways located on their land where this is necessary in order to carry out certain types of works (to be specified in regulations) in cases where such works are likely to endanger the users of the right of way in question;
- powers enabling diversion or closure of rights of way for crime prevention in designated areas, and for school security;
- powers enabling diversions of rights of way to protect SSSIs;
- individuals will be able to seek a court order requiring a local highway authority to remove an obstruction, and Magistrates' Courts will be able to require a person who has been convicted of wilfully obstructing a highway to remove the obstruction;
- the offence of driving a motor vehicle on a footpath or bridleway or elsewhere than on a road is extended so that it applies to vehicles which may not be covered at present. The offence is also applied to restricted byways. Ways shown on a definitive map as footpaths, bridleways or restricted byways will be presumed to be so unless proved to the contrary; and
- local authorities will be required to consider the needs of people with mobility problems when authorising the erection of new stiles and gates on footpaths or bridleways; and authorities will be able to enter into agreements with owners or occupiers of land to fund the replacement or adaptation of existing stiles and gates to make them safer or more convenient for people with mobility problems.

### **Vehicular Access Across Common Land**

- The Act contains provisions relating to the grant of statutory easements for vehicular access over land (including common land) on which it is an offence to drive a vehicle. The Act enables the creation of a statutory easement where a person has used an access to property across land on which it is an offence to drive a vehicle, provided certain qualifying criteria are met. Regulations will deal with issues such as the criteria to be met in order to apply for an easement; the compensation to be paid by the property owner to the land owner; how the application for the easement must be

made; the conditions to which the easement will be subject and dispute resolution procedures.

### **Part III: Nature Conservation and Wildlife Protection**

#### **Biological Diversity**

The Act provides a statutory basis for biodiversity conservation hitherto undertaken as a matter of policy.

- A new duty on Government Departments and the National Assembly to have regard to biodiversity conservation and maintain lists of species and habitats for which conservation steps should be taken or promoted.
- **Sites of Special Scientific Interest**
- Improves the procedures associated with the notification, protection and management of SSSIs.
- conservation agencies are given the power to refuse consent for damaging activities and to encourage positive management of the land;
- a statutory duty for public bodies to further the conservation and enhancement of SSSIs;
- increased penalties for damage to SSSIs by owners and occupiers and other parties.

#### **Wildlife Protection**

Will strengthen legal protection for threatened species and bring up to date Wildlife and Countryside Act 1981.

- Makes certain offences 'arrestable' - this also means that stronger search and seizure powers are available to the police;
- creates a new offence of reckless disturbance;
- gives increased powers to the police and wildlife inspectors - they will have the power to enter premises to check species sales controls and can require tissue samples to be taken from wildlife species for DNA analysis;
- enables Courts to impose heavier fines and prison sentences for virtually all wildlife offences.

### **Part IV: Areas of Outstanding Natural Beauty**

The Act will improve the management of Areas of Outstanding Natural Beauty (AONBs) by the introduction of two new measures.

- requiring local authorities in whose areas AONBs are contained to prepare and publish a management plan for each AONB.
- allowing conservation boards to be created, by order, for individual AONBs where there is local support. Conservation boards would take over responsibility for the management plan and other aspects of the management of the AONB from the local authorities. There would be a mixture of members appointed from the local authorities and parishes, and also by the Secretary of State to represent conservation, land management and countryside recreation interests.

#### **Part V Town and Village Greens.**

- The Act clarifies the definition of town and village green contained in the Commons Registration Act 1965. It introduces the concept of neighbourhood and also provides that use of the land for lawful sports and pastimes must be by a significant number of people from the locality or neighbourhood.

#### **Background Documents**

**Access** - Public consultation paper Access to the Open Countryside in England and Wales published in February 1998. A statement of the Government's access proposals was published in March 1999 Access to the Countryside in England & Wales: The Government's Framework for Action.

**Rights of Way Consultation document** - Improving Rights of Way in England and Wales July 1999.

**SSSIs** - a consultation paper was issued in September 1998 SSSIs: Better Protection and Management, following responses the Government's Framework for Action was published in August 1999.

**Wildlife** -The Partnership for Action Against Wildlife Crime's recommendations for changes to strengthen wildlife law enforcement were published for consultation in March 1997. Ministers announced their support in press notices July (PN 286) and October (PN395) 1997.Note. Consultation documents can be viewed at [www.defra.gov.uk](http://www.defra.gov.uk) .

**AONBs** - Countryside Commission document CCP 532 Protecting our Finest Countryside: Advice to Government, July 1998.

The Act received Royal Assent on 30 November 2000. Copies of the Act are on sale from The Stationery Office 0870 6005522 or can be found on the internet at [http://www. publications.parliament.uk](http://www.publications.parliament.uk)

## **CROW ACT FACTSHEET 2: ACCESS**

The Countryside and Rights of Way Act will fulfil the Government's manifesto commitment to give people greater freedom to explore open countryside.

### **Key elements**

- a new right of public access to mountain, moor, heath, down and registered common land;
- provision of effective safeguards to take account of the needs of landowners and managers and of other interests, including wildlife;
- the right will not apply to developed land, gardens or to cultivated land;
- the right will be subject to sensible restrictions to avoid activities which might cause harm or damage;
- the right will not extend to cycling, horseriding or driving a vehicle;
- landowners' liability as occupiers will be reduced to a minimum;
- provision for landowners to close access land or otherwise restrict access without needing permission for up to 28 days each year;
- provision for further closures or restrictions to take account of the needs of conservation, land management, defence and national security, and safety;
- provision for possible extension of the right of access to coastal land, but only after public consultation;
- a power for landowners voluntarily to dedicate their land for access.

### **Why is greater access needed?**

There is a long history of public and parliamentary campaigns to secure a right for people to walk freely across mountains, moors and other uncultivated countryside. Previous Governments have responded to demands for such freedom, most notably with the National Parks & Access to the Countryside Act 1949. But the Act proved complex, and large tracts of open countryside in England and Wales remain closed to the public.

Demand for greater access has been demonstrated through polls conducted by Gallup and NOP, on behalf of the Country Landowners' and Ramblers' Associations respectively. Around 80% of those surveyed wish to see more countryside opened up.

### **When will people be able to use the new right and how will they know?**

- The right will largely depend on maps produced by the Countryside Agency and the Countryside Council for Wales, but the Act allows for possibility of earlier access to registered commons and to land above 600 metres;
- DETR has a published Public Service Agreement target to open up public access to mountain, moor, heath and down, and registered common land, by no later than the end of 2005. Substantial areas of access land could be available within the next 2-3 years;
- the countryside agencies will prepare codes of practice for users, landowners and local authorities providing guidance on their respective rights and responsibilities;
- Countryside Agency is looking at ways of ensuring effective publicity and information about access opportunities.

### **Background**

A statement of the Government's access proposals was published in March 1999, entitled *Access to the Countryside in England & Wales: The Government's Framework for Action*. The framework was developed in the light of responses to the public consultation paper, *Access to the Open Countryside in England & Wales*, published in February 1998, and the results of a study of the economic, environmental and social benefits and costs of different approaches for improving access to open countryside.

These documents and other supporting information can be viewed on the Countryside Legislation website at -

[www.defra.gov.uk](http://www.defra.gov.uk) .

## **CROW ACT FACTSHEET 3: RIGHTS OF WAY**

Rights of way are minor highways that exist for the benefit of the community at large. Historically they were an integral part of the country's transport system, but have long since evolved into a recreational web which enables people to explore the countryside on foot, on horseback or on wheels. At the same time, some parts of the rights of way network, in both rural and urban areas, provide a convenient means of travelling from one place to another, particularly for short journeys.

### **What does the Act do?**

- improves the legislation governing the administration and management of rights of way;
- requires local highway authorities to review and publish plans for improving rights of way in their areas, taking into account the needs of the public including disabled people;
- sets a target date of 25 years for the recording on local authorities' definitive maps of certain rights of way created before 1949;
- enables landowners to apply to a council for an order to divert or extinguish a footpath or bridleway and appeal against its decision;
- gives occupiers of land the right to make temporary diversions to footpaths and bridleways located on their land in order to carry out certain types of works (to be specified in regulations) in cases where such works are likely to endanger users of the right of way;
- introduces powers for highway authorities, on application by the relevant conservation body (that is, English Nature or the Countryside Council for Wales), to divert rights of way in order to protect Sites of Special Scientific Interest;
- creates a new category of way - Restricted Byway - for all traffic except motor vehicles to replace the current category of Roads Used as Public Paths (RUPPs);
- gives the public a right of way over restricted byways on foot, horseback, cycle and for horse-drawn vehicles. Any as yet undiscovered vehicular rights would have to be proved on a case by case basis;
- provides powers to regulate traffic for conservation purposes;
- enables Magistrates' Courts to require a person who has been convicted of wilfully obstructing a highway to remove the obstruction. It also enables

individuals to seek a Magistrates' Court order requiring a local highway authority to secure the removal of certain obstructions;

- gives highway authorities the power to close or divert rights of way in order to prevent crime in designated areas and to protect children and staff on school grounds, including a right for school proprietors to apply for an order to close or divert a right of way;
- extends the offence of driving a motor vehicle on a footpath or bridleway or elsewhere than on a road so that it applies to vehicles which are not covered at present and applies the offence to restricted byways. Ways shown on a definitive map as footpaths, bridleways or restricted byways will be presumed to be so unless proved to the contrary
- requires local authorities to consider the needs of people with mobility problems when authorising the erection of new stiles and gates on footpaths or bridleways; enable authorities to enter into agreements with owners or occupiers of land to fund the replacement or adaptation of existing stiles and gates to make them safer or more convenient for people with mobility problems; and
- gives powers to the Secretary of State and the National Assembly for Wales to require local highway authorities to report on their rights of way functions.

### **Why is the legislation necessary?**

To modernise the rights of way system to better meet the needs of today's users and land managers and also to complement proposals on access to open countryside.

### **What will the changes mean for different groups?**

The Act will encourage a proactive approach to the provision of linear access to match it more closely to modern patterns of demand and land use whilst ensuring environmental concerns and the needs of disabled people are better reflected.

### **Background**

The rights of way provisions were the subject of wide consultation, including a series of discussions with the key organisations. Previous framework / consultation documents. The Government's intention to legislate on rights of way was announced on 8 March 1999 in Access to the Countryside in England and Wales: The Government's Framework for Action. The Government's consultation paper on

rights of way, Improving Rights of Way in England and Wales, was published in July 1999 following receipt of recommendations from the former Countryside Commission in Rights of Way in the 21st Century - Conclusions and Recommendations (CCP 550). The rights of way elements of the Bill were developed and finalised in the light of the responses to the consultation paper.

Note: Consultation documents can be viewed at -

[www.defra.gov.uk](http://www.defra.gov.uk) .

## **CROW ACT FACTSHEET 4: NATURE CONSERVATION**

### **Biodiversity Conservation**

The Government has signed the UN Convention on Biological Diversity and has worked with others to implement its provisions, in part through the UK Biodiversity Action Plan. Implementation by policy in the past has included the identification of species and habitat types which are priorities for conservation action.

### **What will the provisions for biodiversity conservation do?**

- Place a duty on Government Departments to have regard to the purpose of conserving biological diversity, in exercising their functions;
- Provide for the publication and maintenance of lists of the most important species and habitat types for conservation;
- Require the Secretary of state and the National Assembly to take steps to further the conservation of the listed habitat types and species and to promote such steps by others.

### **Why are the changes necessary?**

Statutory underpinning of biodiversity conservation demonstrates the Government's commitment to long-term implementation of action to conserve biodiversity wherever it occurs, in accordance with the UN Convention.

### **What will the changes mean to people affected by them?**

The conservation of biodiversity has been undertaken by Government as a matter of policy through implementation of the UK Biodiversity Action Plan. This has included the development of specific Action Plans for priority species and habitats and the integration of biodiversity considerations into public policies and programmes. The Government intends to continue with the direction and approach already adopted which involves working in partnership with a wide range of public and non-public bodies. The provisions will not make a direct impact on private individuals except in terms of general quality of life through the enhanced conservation of biodiversity.

### **How will the people affected be kept in touch?**

Action to conserve biodiversity often involves the raising of awareness and education of the public so that they can contribute to conservation efforts

voluntarily. The UK Biodiversity Action Plan puts an emphasis on maintaining contact with partner organisations in the UK Biodiversity Group (UKBG) through a wide variety of mechanisms. The UKBG website is currently being updated to provide more comprehensive information.

## **Background**

The Biodiversity Conservation provisions in the Act arose as a result of consideration which took place during its passage through Parliament. The Government wished to demonstrate its commitment to the conservation of biological diversity in general and to the existing approach of identifying the most important elements of biodiversity for conservation action. It was considered important to ensure that the provision was related to the Government's obligations under the UN Convention, that the current partnership approach was sustained and that there was sufficient flexibility to adjust priorities for the future.

## **Sites of Special Scientific Interest (SSSIs)**

SSSIs are notified under Section 28 of the Wildlife and Countryside Act 1981 as areas of special interest by reason of their flora, fauna, geological or physiographical features: they are the best examples of our natural heritage.

## **What do the provisions for Sites of Special Scientific Interest do?**

- improve the protection and management of SSSIs;
- introduce new and enhanced powers for the conservation agencies (English Nature and the Countryside Council for Wales);
- a more structured approach to management advice and a new power to refuse consent for damaging activities; development of management schemes to help combat neglect, and the introduction of management notices. This is balanced by new appeal procedures;
- to support these new powers the agencies have additional powers to enter land, and more flexible powers to purchase land compulsorily;
- public bodies are under a statutory duty to further the conservation and enhancement of SSSIs, both in carrying out their operations and exercising their decision-making functions;
- increased penalties for deliberate damage to SSSIs of up to £20,000 in the magistrate's court and unlimited fines in the crown court; and a new court

power to order restoration of the damaged special interest, where this is practicable;

- a new general offence to apply to damage by any person, and extended byelaw making powers for the agencies, so that they may be applied on any SSSI, where appropriate.

### **Why are the changes necessary?**

Only 56 % of sites are in favourable condition: the changes will give the conservation agencies tools to improve this, and will create conditions in which sites can be positively managed.

### **What will the changes mean to people affected by them?**

Owners and occupiers of SSSIs will benefit from clearer procedures. They will also have new rights of appeal against the action of the conservation agencies in refusing consent, or against a management notice. Management agreements may be made on an SSSI or on other land, where the management affects the SSSI, and payments will be directed at positive management of the special features.

### **How will the people affected be kept in touch?**

Full publicity has been given to the proposals, and we will be issuing a Code of Guidance to the conservation agencies on the conduct of the new procedures. The agencies will notify all owners and occupiers of SSSIs individually of the new legislation, and associated procedural changes.

### **Background**

The Government made a manifesto commitment in May 1997 to improve the protection of wildlife: ensuring the protection of almost 5000 SSSIs in England and Wales is central to this. A consultation paper was issued in September 1998, SSSIs: Better Protection and Management, which set out wide ranging proposals seeking to secure the sustainable management of these sites. Following the consideration of nearly 600 consultation responses, and extensive discussions with interested parties, the Government's Framework for Action was published in August 1999, setting out the basis for this legislation. Consultation documents can be viewed at [www.defra.gov.uk](http://www.defra.gov.uk) .

## **Wildlife Enforcement**

### **What will the provisions on wildlife enforcement do?**

- strengthen the species enforcement provisions of the Wildlife and Countryside Act 1981;
- make those offences which relate to species of conservation concern 'arrestable' as an exception to the provisions of section 24(1) of the Police and Criminal Evidence Act 1984. This will also bring stronger powers of search and seizure for the police;
- provide police officers and DETR Wildlife Inspectors with powers to require tissue samples to be taken from wildlife species for DNA analysis;
- Give the option of custodial sentences of up to six months for many wildlife offences. For offences involving the release of non-native species, a sentence of up to two years may be handed down. At present only fines can be imposed;
- increase the range of offences for which police officers can obtain search warrants;
- change the time limits for bringing prosecutions. Prosecutions must normally be brought within six months of an offence being committed. The changes will mean that prosecutions can be brought within six months of the date evidence of an offence becomes available, but within two years of an offence taking place;
- make it an offence to recklessly disturb a place of rest or shelter of a protected animal or a nest site. In the case of cetacea (whales, dolphins) and the basking shark, intentional or reckless disturbance anywhere will be an offence;
- extends the Department's Wildlife Inspectors' powers to enter premises to ascertain whether various offences have been or are being committed.

### **Why are the changes necessary?**

Wildlife legislation has no effect if it is not implemented and enforced. These measures will remedy weaknesses which were hampering the efforts of police officers to bring people to justice and will provide stronger penalties for people found guilty of committing offences. The changes to powers for Wildlife Inspectors will mean that they can play an even greater role in preventing and in some cases detecting crime.

**What will the changes mean to people affected by them?**

People who keep certain bird species in captivity are already subject to spot checks and routine inspections. People who trade in certain species will now also be subject to such checks, and in some instances both keepers and traders might be asked to make their specimens available for the taking of a tissue sample for DNA analysis.

**How will the people affected be kept in touch?**

Information about the changes will be sent via the Partnership for Action Against Wildlife Crime to all Police forces and to all members of PAW; information will be sent to all existing keepers of registered birds and to applicants for new registrations or sales licences; Inspectors will be given extra training and issued with advice notes, and information will be published on the Department's website.

**Background**

The Partnership for Action Against Wildlife Crime's recommendations for changes to strengthen wildlife law enforcement were published for consultation in March 1997. Ministers announced their support for the majority of the recommendations in July (PN 286) and October (PN 395) 1997, and these are now being taken forward in the Bill.

## **CROW ACT FACTSHEET 5: AREAS OF OUTSTANDING NATURAL BEAUTY**

### **Areas of Outstanding Natural Beauty (AONBs)**

Provision for designating Areas of Outstanding Natural Beauty (AONBs) was made in Section 87 of the National Parks and Access to the Countryside Act 1949 (the 1949 Act). AONBs are designated by the Countryside Agency in England or by the Countryside Council for Wales. To take effect the designation must be confirmed by the Secretary of State for the Environment, Transport and the Regions, in England, or by the National Assembly for Wales. The purpose of the designation is the conservation and enhancement of the natural beauty of the areas concerned.

### **What does the Act do?**

- requires local authorities in whose areas AONBs are contained to prepare and publish a management plan for each AONB.
- allows conservation boards to be created, by order, for individual AONBs where there is local support. Conservation boards would take over responsibility for the management plan and other aspects of the management of the AONB from the local authorities. (Further details below.)
- places a duty on public bodies, Ministers, statutory undertakers and those holding public office, when doing anything so as to affect land in an AONB, to have regard to the purpose of conserving and enhancing the natural beauty of the AONB.
- consolidates the AONBs legislation from the 1949 Act in this Act, bringing it all together and updating various references.

### **Why is the legislation necessary?**

To enable AONBs to be managed more effectively for conservation and enhancement of their natural beauty and increasing people's enjoyment of them. Although the 1949 Act gave extensive powers to local planning authorities to take action to conserve and enhance AONBs, it did not give any local bodies specific responsibilities for doing so.

### **How will it affect people who live or work in or visit an AONB?**

The introduction of statutory management plans will raise the profile of AONBs. There will be extensive local consultation on their preparation and review - all interested local groups will have an opportunity to contribute their views. It is hoped

that all those people who contribute in various ways to the management of the AONB will sign up to the objectives in the plan. The Countryside Agency is working with AONB managers to develop guidance on management plans, which will be issued next year. Management plans must be in place within three years of the legislation coming into effect.

Conservation boards are intended to allow more effective management of AONBs where a number of local authorities are involved. They will not be the right solution for every AONB. Local people will be consulted before a board is set up. At least 60% of the members of a board will be appointed locally.

The Act will not bring any changes to the development plan regime for AONBs, which is already protective. The Government confirmed earlier this year that AONBs are equal in their landscape quality to the National Parks, and equally stringent measures to protect the landscape should apply. However, all public bodies, Ministers, statutory undertakers and those holding public office will in future have a statutory duty, when performing any functions so as to affect land in an AONB, to have regard to the purpose of conserving and enhancing the natural beauty of the AONB. This is in line with the duty such bodies already have towards National Park purposes, and further demonstrates the importance the Government places on effective protection for AONBs.

### **Conservation boards**

The Countryside Agency and AONB managers have for some time sought the possibility of setting up statutory conservation boards for particular AONBs where they would benefit from such a management mechanism and there is local support. Most AONBs are likely to remain cared for by their local authorities; conservation boards will generally be most suited to some of the larger AONBs which cross a number of local authority boundaries.

The principal purpose of conservation boards will be to conserve and enhance the natural beauty of the AONB. They will also have responsibility for increasing the understanding and enjoyment of the special qualities of the AONB by the public, and will be required to seek to foster the economic and social well-being of local communities, particularly through working with other bodies such as local authorities and the RDAs which have the major responsibilities for economic and social development. Conservation boards' detailed functions will be set out in their individual establishment orders. Local authority functions relating to the

management of the AONB may be transferred to a board or shared with it, but development planning and development control powers will remain with the local authorities.

The membership of AONB conservation boards will be made up of local authority members (at least 40%), parish members (at least 20% in England), and members appointed by the Secretary of State to represent interests such as conservation, land management and countryside recreation.

### **Background**

The Countryside Commission (now Countryside Agency) published *Protecting our Finest Countryside: Advice to Government* (CCP 532) in July 1998, seeking improved management arrangements for AONBs including the introduction of statutory management plans and conservation boards. The Government expressed support for its major provisions. Measures subsequently appeared in a private peer's Bill introduced in the House of Lords by Lord Renton of Mount Harry in April 1999, but the Bill failed to become law. Amendments to the Countryside and Rights of Way Bill on similar lines, tabled by Gordon Prentice MP, gained all-party support earlier this year and the Government undertook to bring forward suitable amendments as an addition to the Bill in the House of Lords.

## APPENDIX 8 GLOUCESTERSHIRE UNIMPROVED LIMESTONE GRASSLAND ACTION PLAN (EXTRACT FROM GLOUCESTERSHIRE BIODIVERSITY ACTION PLAN)

### UNIMPROVED LIMESTONE GRASSLAND HABITAT ACTION PLAN

#### 1 CURRENT STATUS

- 1.1 Species rich grasslands occurring on shallow lime rich soils on limestone rock and often co-existing with variable amounts of scrub. The UK Habitat Action Plan uses the term lowland calcareous grassland which in Gloucestershire is interchangeable with the term unimproved limestone grassland.
- 1.2 Unimproved limestone grasslands are now typically found on escarpments, dry valley slopes and landscapes strongly influenced by the underlying geology. This type of grassland is typically managed as a component of mixed farming systems, supporting sheep, cattle and sometimes horses. In Gloucestershire around one third of these limestone grasslands are registered commons.
- 1.3 Unimproved limestone grasslands include a range of plant communities in which lime tolerant plants are characteristic. The particular community which is characteristic of the Cotswolds is the upright brome and tor grass community (CG5). The tor grass community (CG3) is also of importance and is more frequent in southern Gloucestershire.
- 1.4 Gloucestershire holds a significant proportion of the national unimproved limestone grassland resource. The Cotswolds support 3000 hectares of unimproved limestone grassland of which 1600 hectares occur in the Gloucestershire section of this Natural Area. This grassland type also occurs in small pockets on carboniferous limestone in the Forest of Dean and Wye Valley Natural Area.
- 1.5 The upright brome/tor grass community (CG5) which dominates the Cotswolds represents over half the national resource of this unique type of limestone grassland habitat.
- 1.6 Nationally, the cover of calcareous grassland has suffered a sharp decline over the last 50 years. Such grasslands are highly susceptible to changes in, or cessation of, management. It is estimated that before 1935, unimproved limestone grassland covered over 40 percent of the Cotswolds, this has sharply declined to around 1.5 percent today. This loss has been driven predominantly by changes in agricultural policy, leading to conversion of grasslands to arable crops, artificial improvement of grasslands and reseeded (improved leys).
- 1.7 Unimproved limestone grasslands support a very rich flora and many nationally rare and scarce species such as early gentian (*Gentianella anglica*) and pasque flower (*Pulsatilla vulgaris*). They are extremely important for specialist invertebrates. The Cotswolds hold nationally important populations of species such as heath snail (*Helicella itala*) and the western limestone bug (*Macroplox pressleri*) which has only six sites in the UK, of which Rodborough common is by far the largest. Many butterflies including the Duke of Burgundy fritillary (*Hamearis lucina*) and the marsh fritillary (*Eurodryas aurinia*) are dependent on limestone grasslands.
- 1.8 Scrub is frequently associated with unimproved limestone grassland. Although scrub encroachment can be a significant problem, where managed appropriately, scrub can provide important habitats for a variety of species. Scrub-edge conditions are required by species such as the Duke of Burgundy butterfly, lesser whitethroat, fly orchid, many species of moths and providing shelter for many more invertebrates (e.g. *Cryptocephalus* beetles). Juniper is a priority species which occurs in this habitat and has suffered serious declines over recent years (juniper has its own Species Action Plan within this document).
- 1.9 Many sites such as Rodborough Common, Minchinhampton Common, Cleeve Common and Barnsley Warren are notified as SSSIs. Rodborough Common is a candidate Special Area of Conservation (cSAC). Many other sites are included in the Key Wildlife Sites register.
- 1.10 Although there are more than 300 unimproved limestone grasslands, very few sites are over 20 hectares, the vast majority of sites are much smaller and isolated and surrounded by intensively farmed land. Many plants and animals cannot move between these isolated sites making them

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prone to local extinction. This fragmentation also leads to a general decline in habitat quality and makes sites agriculturally unviable and therefore prone to neglect.

- 1.11 Many areas of limestone grassland, having been undisturbed for centuries, are also rich in archaeology, such as barrows and earthworks. Managing grasslands can also provide the best opportunity to improve the management and protection of these archaeological sites.

1.12 **Habitat Biodiversity - links with other habitats and species.**

Unimproved limestone grassland supports a very wide range of species. Characteristic species include Duke of Burgundy butterfly, bastard toadflax, purple milk-vetch, chalk hill blue butterfly, small blue butterfly, bee orchid, pasque flower, musk orchid, burnt orchid. The various UK Priority species dependent on this habitat are listed below.

This Habitat should be considered in conjunction with the Habitat Action Plans for:

- **Woodpasture, parkland and veteran trees** (old pastures often contain ancient pollard ash trees)
- **Unimproved neutral grassland** (can occur in a mosaic with this grassland type)
- **Woodlands** (often in close proximity, especially along the Cotswold scarp)

Links between Unimproved limestone grassland and Priority Species		
Species		Other habitat associations
<b>Primary association</b>		
hornet robber fly	<i>Asilus crabroniformis</i>	AG
a leaf beetle	<i>Cryptocephalus primarius</i>	-
marsh fritillary butterfly	<i>Eurodryas aurinia</i>	-
early gentian	<i>Gentianella anglica ssp. anglica</i>	-
bordered gothic moth	<i>Heliophobus reticulata</i>	NG
narrow-bordered bee hawk-moth	<i>Hemaris tityus</i>	-
pink meadow cap	<i>Hygrocybe calyptraeformis</i>	-
Juniper	<i>Juniperus communis</i>	-
adonis blue butterfly	<i>Lysandra bellargus</i>	-
lunar yellow underwing moth	<i>Noctua orbora</i>	WO
pale shining brown moth	<i>Polia bombycina</i>	NG
chalk carpet moth	<i>Scotopteryx bipunctaria</i>	-
barred toothed-striped moth	<i>Trichopteryx polycommata</i>	WO/NG
<b>Secondary association</b>		
Skylark	<i>Alauda arvensis</i>	mosaic
Bumblebees	<i>Bombus spp.</i>	mosaic
dotted bee fly	<i>Bombylius discolor</i>	WO/AH
striped lychnis moth	<i>Cucullia lychnitis</i>	NG
red hemp-nettle	<i>Galeopsis angustifolia</i>	FM
Linnet	<i>Miliaria calandra</i>	mosaic
a moss	<i>Seligeria paucifolia</i>	WO
Cotswold pennycress	<i>Thlaspi perfoliatum</i>	(quarries in LG)
great crested newt	<i>Triturus cristatus</i>	mosaic
song thrush	<i>Turdus philomelos</i>	mosaic
a moss	<i>Weissia sterilis</i>	-

\* For key to abbreviations see Habitat Action Plan Index (at the start of this section)

## 2 FACTORS AFFECTING UNIMPROVED LIMESTONE GRASSLAND

The factors currently affecting unimproved limestone grassland reduce the quality and the quantity of the habitat and its fragmentation brings increased risk of species extinction in the small remnant areas. More specifically these include:

- 2.1 Agricultural intensification, through the use of fertilisers, herbicides and other pesticides, together with reseeded and ploughing for arable crops.
- 2.2 Farm specialisation towards arable cropping has reduced the availability of livestock in many lowland areas. The result is neglect through lack of grazing, the increasing dominance of coarse grasses and the invasion of scrub and woodland, leading to losses of unimproved limestone grassland flora and fauna.
- 2.3 Inappropriate grazing intensity (either too high or too low). Changes in stock type, using the less appropriate breeds not suited to grazing this habitat may also be a factor (evidence is currently being collated through the grazing animals project).
- 2.4 Localised forestry and other tree planting.
- 2.5 Lack of financial viability of sites for livestock farming leads to loss and fragmentation.
- 2.6 Economic downturn of extensive grazing systems through, for example, the BSE crisis.
- 2.7 Recreational pressure and inappropriate recreational use bringing about soil compaction, erosion, and floristic changes.
- 2.8 Invasion by non-native plants can smother native vegetation at some sites. Problem species include *Cotoneaster*, holm oak and turkey oak. Smaller sites are more prone to invasion by these species since they have more 'edge'. Ragwort, a native species, can also be a problem.
- 2.9 The legal complexities of Registered Commons make the reintroduction of sympathetic management for wildlife more difficult.
- 2.10 Gaps in information to guide management for species, sites and the whole resource.
- 2.11 Lack of understanding between compatibility of use and the complex conservation value and management needs.
- 2.12 Lack of co-ordination between different conservation objectives, strategies and organisations. For example botanical management may benefit plant communities but not necessarily invertebrates.
- 2.13 Development activities such as mineral and rock extraction, road building, golf courses housing and associated services (such as utilities) and landfill which can destroy or fragment and isolate remaining sites.
- 2.14 Atmospheric pollution and climate change.

## 3 CURRENT ACTION

<i>Protection of unimproved limestone grassland sites</i>	
<i>Designation</i>	<i>Examples*</i>
cSAC	Rodborough Common ( <i>the only grassland cSAC</i> )
SSSI	Daneway Banks, Barnsley Warren, Hornsleasow Roughs
Key Wildlife Sites	Cirencester Golf Course, Withington Banks
Local Nature Reserves	Coopers Hill
Registered Commons	Selsley Common, Edge Common, Minchinhampton Common

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*\*Many of the above categories overlap, for example, Rodborough Common is a cSAC, a SSSI, a Key Wildlife Site and a Registered Common.*

### **3.1 Policy and Legislation**

- 3.1.1 Agri-environment schemes currently provide incentives for appropriate grazing, habitat restoration and scrub management. This includes the Cotswold Hills ESA and Countryside Stewardship Scheme. Landowners are being encouraged to enter into these schemes.
- 3.1.2 The most important unimproved limestone grassland sites are notified as SSSIs. Site management statements are being developed by EN in conjunction with owners/occupiers of SSSIs.
- 3.1.3 Rodborough Common has been designated a candidate SAC site (cSAC).
- 3.1.4 The unimproved limestone grassland species early gentian *Gentianella anglica*, marsh fritillary butterfly *Eurodryas aurinia* and large blue butterfly *Maculinea arion* are listed on Annex II of the EC Habitats Directive which gives them special legal protection.

### **3.2 Site Safeguard and Management**

- 3.2.1 The Cotswold Grassland Management Group (CGMC) addresses the conservation needs of unimproved limestone grassland within the Cotswolds AONB.
- 3.2.2 A number of significant sites have been acquired by conservation organisations (eg Gloucestershire Wildlife Trust, National Trust) and are managed primarily for their biodiversity. Gloucestershire Wildlife Trust owns and/or manages 15 unimproved limestone grassland nature reserves.
- 3.2.3 Sites over 0.5 ha may be considered for addition to Gloucestershire Wildlife Trust's Key Wildlife Sites register.
- 3.2.4 Sites owned by the National Trust (Rodborough and Minchinhampton Commons, Crickley Hill and Haresfield Beacon) are *inalienable*, under the National Trusts Act and therefore, afforded a high level of protection.

### **3.3 Advisory**

- 3.3.1 Several groups and individuals including the Cotswolds AONB, GWT, EN, BTCV, NT promote and assist in the management of important sites.
- 3.3.2 The owners of Key Wildlife Sites are being targeted to promote understanding of the importance of this habitat type.

### **3.4 Research and monitoring**

- 3.4.1 English Nature has a limestone grassland inventory for Gloucestershire, which identifies extent and condition of the resource (this is however, not yet complete).

### **3.5 Communications and Publicity**

- 3.5.1 Promotional material on Cotswold grasslands, directed at the local community, have been produced by EN and the Cotswolds AONB.
- 3.5.2 Regular guided walks and open days are organised over the summer by various organisations.
- 3.5.3 Other events, such as international exchange visits and machinery demonstration days, occur periodically.

#### 4 OBJECTIVES

**Summary of UK BAP Objectives for Unimproved Limestone Grassland**  
(from the Lowland Calcareous Grassland Habitat Action Plan)

- Arrest the depletion of unimproved lowland calcareous grassland throughout the UK.
- Within SSSIs initiate rehabilitation management for all significant stands of unimproved calcareous grassland in unfavourable conservation by 2005, with the aim of achieving favourable status by 2010.
- Outside SSSIs secure favourable condition for 30% of the resource by 2005 and as near to 100% as is practicable by 2015.
- Attempt to re-establish 1000ha of lowland calcareous grassland of wildlife value at carefully targeted sites by 2010.

#### GLOUCESTERSHIRE BIODIVERSITY OBJECTIVES AND TARGETS

**4.1 Maintain and protect the current resource of unimproved limestone grassland in Gloucestershire.**

Target: No further loss of unimproved limestone grasslands in extent or quality by 2000

*Gloucestershire supports a substantial component of the UK and European resource of this diverse habitat and further loss should be strongly resisted.*

**4.2 Improve the management of sites (ensuring that habitat management accommodates the varying needs of key species).**

Targets:

**SSSIs:** favourable management of all SSSIs initiated by 2005; all SSSIs under favourable conservation status by 2010.

**Other sites:** 30% of all non-SSSI grasslands under favourable condition by 2003; 100% of sites under favourable management by 2015.

*In the long term, inappropriate management of sites reduces the biodiversity of this habitat to the point where it loses its characteristic species and can no longer be considered unimproved limestone grassland.*

**4.3 Link, extend and buffer existing sites through habitat re-creation**

Target: Re-create 400ha of limestone grassland by 2010.

*Small sites are particularly vulnerable to species loss and a decline in habitat quality; restoration work should be targeted to areas close to existing sites.*

**4.4 Encourage people to appreciate the special biodiversity and landscape of unimproved limestone grasslands**

Target: ongoing

*Some unimproved limestone grasslands are a particularly appealing ecological and landscape asset and provide an insight into the general need for biodiversity conservation.*

5 ACTIONS

Action	Potential deliverers		Year for action to be complete or in place by						
	LEAD	Partners	2000	1	2	3	4	5	10
<b>5.1 Policy and Legislation</b>									
5.1.1 Ensure that the conservation requirements of unimproved limestone grassland are taken into account when developing and revising agri-environment schemes, which should target concentrations of this habitat: for example, the ESA review and targeting Countryside Stewardship.	MAFF/FRCA	CAONBP, GWT, RSPB, NT, EN	✓	✓	✓	✓	✓	✓	✓
5.1.2 Support regional/national initiatives which seek to make beneficial changes to the CAP.	GWT	FWAG, RSPB,	✓	✓	✓	✓	✓	✓	✓
5.1.3 Consider designating further sites as SSSIs.	EN	GWT	✓	✓	✓	✓	✓	✓	✓
5.1.4 Influence public utilities towards a sympathetic approach to limestone grasslands.	CGMG	utilities	✓	✓	✓	✓	✓	✓	✓
5.1.5 Seek the inclusion of policies within Structure Plans, Local Plans, Waste Local Plans and Minerals Plans that ensure new development does not have an adverse effect on the nature conservation value of unimproved limestone grassland.	Las	GWT, EN, CAONBP, NT	✓	✓	✓	✓	✓	✓	✓
5.1.6 Ensure that Local Plans identify sites of nature conservation importance with respect to unimproved limestone grassland.	Las	GWT, EN, CAONBP, NT	✓	✓	✓	✓	✓	✓	✓
5.1.7 Identify mechanisms and produce recommendations for the sympathetic management of registered common land.	CGMG	Local community, Las, RA	✓	✓					
<b>5.2 Site Safeguard and Management</b>									
5.2.1 Seek a major source of funding to establish appropriate and attractive incentives for the management of unimproved limestone grassland, to plug gaps and complement the existing ESA; for example, the Heritage Lottery Fund (HLF) could be used to provide a flying flock, and to run a marketing campaign for local beef & lamb.	CAONBP	CGMG	✓	✓	✓				
5.2.2 Maintain a partnership to protect, manage and promote unimproved limestone grasslands.	CGMG	CAONBP, MAFF/FRCA, GWT, EN	✓	✓	✓	✓	✓	✓	✓
5.2.3 Seek to secure the uptake of positive management with owners and occupiers of grassland sites, where necessary, to achieve favourable conservation conditions.	CGMG	MAFF/FRCA, EN, GWT, FWAG, CAONBP, Farmers and Land-owners	✓	✓	✓	✓	✓	✓	✓
5.2.4 Complete the Site Management Statements programme for SSSIs.	EN		✓	✓					
5.2.5 Where management agreements are inappropriate look for opportunities to acquire important sites (e.g. HLF bids planning gain).	ALL	ALL	✓	✓	✓	✓	✓	✓	✓
5.2.6 Develop a structured overview of sites, whereby management can be tailored for the needs of specific sites and/or species, to achieve a balance and a variety of conditions across the whole resource (to prevent homogenisation and maintain diversity).	CGMG	MAFF/FRCA, GNS, GWT, BC, Site owners/managers	✓	✓					

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5.2.7 Ensure that local development does not impact on unimproved limestone grassland.	LA s	GWT, EN	✓	✓	✓	✓	✓	✓	✓
5.2.8 Discourage all tree planting on unimproved limestone grassland.	FC, LA s		✓						
5.2.9 Contribute to the implementation of relevant species action plans for rare and declining species associated with unimproved limestone grassland.	BAP Steering group		✓	✓	✓	✓	✓	✓	✓
5.2.10 Support the work of the various volunteers who undertake practical work.	CAONBP, NT, GWT, BTCV, EN	Volunteers	✓	✓	✓	✓	✓	✓	✓
<b>5.3 Advisory</b>									
5.3.1 Audit existing information on Limestone grassland habitat and species management.	CGMG (facilitator)	EN, FWAG, GWT, CAONBP, MAFF/FRCA, BC	✓	✓	✓				
5.3.2 Contact all managers of limestone grassland sites to offer advice and to raise awareness, promoting agri-environment schemes and utilising existing and new publications.	CGMG (facilitator)	EN, FWAG, GWT, NT, CAONBP, MAFF/FRCA, BC, farmers and Land-owners	✓	✓	✓	✓	✓		
5.3.3 Feedback to managers of unimproved limestone grasslands on survey data information and information on specific sites, to facilitate management.	CGMG (facilitator)	EN, FWAG, GWT, CAONBP, MAFF/FRCA, BC			✓	✓	✓	✓	✓
5.3.4 Produce information sheets tailored for specific types of management regime.	CGMG (facilitator)	EN, FWAG, GWT, CAONBP, MAFF/FRCA, BC			✓	✓	✓	✓	✓
5.3.5 Organise a demonstration / training event every other year.	Various (CGMG to facilitate)	various	✓	✓	✓	✓	✓	✓	✓
5.3.6 Create a directory listing advisory contacts and contractors.	CAONBP	listed in directory	✓	✓	✓				
5.3.7 Identify a series of sites demonstrating good practice and different management regimes.	CGMG				✓	✓	✓	✓	✓
<b>5.4 Future Research and Monitoring</b>									
5.4.1 Develop a monitoring strategy including baseline information for limestone grasslands, to include biological monitoring of a sample of important sites.	EN	CAONBP, BSBI, GWT, GNS, college / unis.	✓	✓	✓				
5.4.2 Define areas which would benefit most from habitat recreation, and target restoration grants to these areas.	MAFF/FRCA	CGMG, EN, GEDU	✓	✓	✓				
5.4.3 Assess the extent of scrub on important unimproved limestone grassland sites.	EN, Glos Plant Group	GWT, GNS, Pains-wick Beacon Cons. Group, GEDU	✓	✓	✓				

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5.4.4 Devise a scrub management strategy which incorporates guidelines into individual site management.	CGMG		✓	✓	✓	✓				
5.4.5 Devise a juniper management strategy which incorporates guidelines into individual site management.	CGMG	Plant Group	✓	✓						
5.4.6 Identify sites outside the agricultural system and devise methods to encourage their appropriate management; e.g. unmanaged common land, recreational sites and golf courses.	CGMG		✓	✓	✓	✓	✓	✓	✓	✓
5.5 Communications and Publicity										
5.5.1 Establish and support programmes to raise awareness of the importance of unimproved limestone grassland and the need for management; e.g. on site interpretation boards, leaflets, guided walks, mini- exhibitions, and school information packs.	CAONBP	CGMG	✓	✓	✓	✓	✓	✓	✓	✓
5.5.2 Maintain appropriate access (for all) to unimproved limestone grassland on sites which are currently open to the public.	site managers	CAONBP	✓	✓	✓	✓	✓	✓	✓	✓
5.5.3 Create a Cotswolds website linked to and from other relevant websites.	CAONBP	Tourist board	✓	✓	✓					

6 KEY PARTNERS

*BC* Butterfly Conservation  
*BTCV* British Trust for Conservation Volunteers  
*CA* Countryside Agency  
*CAONBP* Cotswold AONB Partnership  
*CGMG* Cotswold Grassland Management Group  
*EA* Environment Agency  
*EN* English Nature  
*FC* Forestry Commission  
*FRCA* Farming and Rural Conservation Agency  
*FWAG* Farming and Wildlife Advisory Group  
*GNS* Gloucestershire Naturalists' Society  
*GWT* Gloucestershire Wildlife Trust  
*Highways Agency*  
*LAs* Local Authorities  
*Local Communities*  
*NT* National Trust  
*RA* Ramblers Association  
*Railtrack*  
*RSPB* Royal Society for the Protection of Birds  
*Site owners/managers*  
*Tourist Board*

## **APPENDIX 9. BOTANICAL SURVEY OF LECKHAMPTON HILL AND KINGS CHARLTON COMMON SSSI**

### **Introduction**

A brief survey was carried out at Leckhampton Hill and Charlton Kings Common SSSI to determine the current ecological value of the area and compare this to the previous information collected for the site. The survey was carried out on the 18<sup>th</sup> June and the 8<sup>th</sup> July 2002.

Due to the time constraints and the recent surveying and evaluation of the quarry areas on the SSSI by English Nature this survey has concentrated on the areas of semi-natural limestone grasslands and fragments of semi-natural ancient woodland.

Again due to time constraints no attempt has been made to categorise communities into the National Vegetation Classification<sup>2</sup>. However it is believed that the following descriptions enable the site's semi-natural interest to be evaluated for the purposes of the production of a pragmatic management plan.

The success of the adopted management plan will need to be monitored in the future and at that point more systematic survey using NVC methodologies will be needed.

The nomenclature for the plant species follows Clapham A.R., Tutin T.G. and Warburg E.F. (1962) *Flora of the British Isles*.

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<sup>2</sup> British Plant Communities: volume 3 - Grasslands and montane communities. Edited by J.S. Rodwell.

## Leckhampton Hill

This section covers the areas of limestone grassland on flat ground beginning above Salterley (Wagon) Quarry in the south up as far as Devil's Chimney Quarry. This encompasses management compartments 3, 4, 7 & 10.

This is an area of species rich grassland where succession to scrub is being halted as a result of regular mowing and trampling.

This grassland appears to be a matrix of CG3<sup>3</sup>, CG4<sup>4</sup> and CG5<sup>5</sup>. The following constants are to be found throughout this area: *Brachypodium pinnatum*, *Briza media*, *Bromus erectus*, *Carex flacca*, *Cirsium acaule*, *Festuca ovina*, *Helianthemum nummularium*, *Hieracium pilosella*, *Lotus corniculatus*, *Plantago lanceolata*, *Sanguisorba minor* and *Thymus praecox*.

The following list provides a full account of those species found in this area during the current survey.

<i>Achillea millefolium</i>	Yarrow
<i>Anacamptis pyramidalis</i>	Pyramidal orchid
<i>Anthoxanthum odoratum</i>	Sweet vernal grass
<i>Arenaria serpyllifolia</i>	Thyme-leaved sandwort
<i>Arrhenatherum elatius</i>	False oat grass
<i>Bellis perennis</i>	Daisy
<i>Betula pendula</i>	Birch
<i>Blackstonia perfoliata</i>	Yellow wort
<i>Brachypodium pinnatum</i>	Tor grass
<i>Briza media</i>	Quaking grass
<i>Bromus erectus</i>	Upright brome
<i>Carex caryophylla</i>	Spring sedge
<i>Carex flacca</i>	Glaucous sedge
<i>Centaurea scabiosa</i>	Greater knapweed
<i>Cerastium fontanum</i>	Common mouse ear
<i>Cirsium acaule</i>	Stemless thistle
<i>Cirsium vulgare</i>	Spear thistle
<i>Clematis vitalba</i>	Traveller's joy
<i>Cynosurus cristata</i>	Crested dog's tail
<i>Dactylis glomerata</i>	Cocksfoot
<i>Dactylorhiza fuchsii</i>	Common spotted orchid
<i>Echium vulgare</i>	Viper's bugloss
<i>Euphrasia</i> sp.	Eyebright sp.
<i>Festuca ovina</i>	Sheep's fescue
<i>Festuca rubra</i>	Red fescue
<i>Galium cruciata</i>	Crosswort
<i>Galium verum</i>	Ladys bedstraw
<i>Helianthemum nummularium</i>	Common rock rose
<i>Helictotrichon pratense</i>	Meadow oat grass
<i>Hieracium pilosella</i>	Mouse-ear hawkweed
<i>Hieracium</i> sp.	Hawkweed sp.
<i>Hippocrepis comosa</i>	Horseshoe vetch
<i>Holcus lanatus</i>	Yorkshire fog
<i>Hypochaeris radicata</i>	Common cat's ear

<sup>3</sup> *Bromus erectus* grassland

<sup>4</sup> *Brachypodium pinnatum* grassland

<sup>5</sup> *Bromus erectus* – *Brachypodium pinnatum* grassland

<i>Koeleria macrantha</i>	Crested hair-grass
<i>Leontodon sp.</i>	Hawkbit species
<i>Leucanthemum vulgare</i>	Ox-eye daisy
<i>Linum catharticum</i>	Fairy flax
<i>Listera ovata</i>	Common twayblade
<i>Lolium perenne</i>	Perennial rye grass
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Pimpinella saxifraga</i>	Burnet saxifrage
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Plantago major</i>	Greater plantain
<i>Plantago media</i>	Hoary plantain
<i>Poa pratensis</i>	Smooth meadow grass
<i>Poa trivialis</i>	Rough meadow grass
<i>Polygala vulgaris</i>	Common milkwort
<i>Primula veris</i>	Cowslip
<i>Ranunculus bulbosus</i>	Bulbous buttercup
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rhinanthus minor</i>	Yellow rattle
<i>Sanguisorba minor</i>	Salad burnet
<i>Senecio jacobaea</i>	Common ragwort
<i>Silene vulgaris</i>	Bladder campion
<i>Taraxacum officinale</i>	Dandelion agg.
<i>Teucrium scorodonia</i>	Wood sage
<i>Thymus praecox</i>	Wild thyme
<i>Tragopogon pratensis</i>	Goatsbeard
<i>Trifolium dubium</i>	Lesser trefoil
<i>Trifolium pratense</i>	Red clover
<i>Trifolium repens</i>	White clover
<i>Ulex europaeus</i>	Common gorse
<i>Urtica dioica</i>	Nettle
<i>Veronica chamaedrys</i>	Germander speedwell
<i>Vicia sepium</i>	Bush vetch
<i>Viola hirta</i>	Hairy violet

This grassland – particularly above Salterley (Wagon) Quarry also contains breeding meadow pipits and the isolated bushes harbour breeding whitethroat.

Yellowhammers were singing from the fringing scrub. Green woodpeckers were feeding from the more closely cropped areas of grassland. In addition to mowing the grassland is lightly grazed by rabbits.

Butterflies recorded in these sections include small copper, wall, large skipper, small heath, common blue, meadow brown and speckled wood.

### **Slopes on quarry**

The slopes to the west of this grassland (compartment 9) were not surveyed in detail but species of interest noted included red valerian (*Centranthus ruber*) and Viper's bugloss (*Echium vulgare*) along with 'escaped' *Cotoneaster* species. At the bottom of these steep slopes the soils appear to become deeper and considerable areas of species rich limestone grassland have become overcome by scrub of varying density consisting of ash and sycamore.

### **Dead Man's or Trye's Quarry**

This area is compartment 11 and is extensively used by mountain bikes. Under the ash trees away from erosion large colonies of twayblade and common spotted orchids flourish. Many of the other characteristic limestone plant species such as salad burnet, spring sedge, mouse-eared hawkweed and perforated St. John's wort also flourish. Much of the ground surface here consists of bare rock – partly caused by human erosion and partly as a function of the thin soils. Although a fuller survey was not carried out such a bare ground habitat is of interest to a range of invertebrate species such as hole dwelling bees which were certainly present during the June visit.

### **Leckhampton Camp**

This area consists of compartments 12 and 13. This area is extensive and flat (except for the monument 'rampart'). It appears to have been managed for many years as a hay meadow and whilst it contains all the species found in compartments 3, 4, 7, 10 & 11 there is a far higher proportion of hay rattle and a marked reduction in the abundance of horseshoe vetch. Compartment 13 also contains Soft brome (*Bromus mollis*) and sorrel (*Rumex acetosa*) along with a higher abundance of the various clovers.

Perhaps this area is on deeper soil and perhaps it has even been ploughed in the distant past. It is still clearly a grassland of limestone origin but does also show characteristics of a mesotrophic grassland (MG). Either way it is still of high conservation value. A grazing regime may lead to the grassland exhibiting more of the CG characteristics whilst a continuation of haycutting might favour the MG elements.

### **Brownstone Quarry**

This Quarry (compartment 35) is again of high conservation value but is at a much earlier stage of the limestone grassland succession. Many areas consist of bare ground and scrub is only really well established on the deeper soiled margins.

The species list for this area is as follows.

<i>Anacamptis pyramidalis</i>	Pyramidal orchid
<i>Arrhenatherum elatius</i>	False oat grass
<i>Bellis perennis</i>	Daisy
<i>Blackstonia perfoliata</i>	Yellow wort
<i>Brachypodium pinnatum</i>	Tor grass
<i>Briza media</i>	Quaking grass
<i>Bromus erectus</i>	Upright brome
<i>Carex flacca</i>	Glaucous sedge
<i>Centaurea scabiosa</i>	Greater knapweed
<i>Centaurea nigra</i>	Black knapweed
<i>Cerastium fontanum</i>	Common mouse ear
<i>Cirsium acaule</i>	Stemless thistle
<i>Cirsium eriophorum</i>	Woolly thistle
<i>Cirsium vulgare</i>	Spear thistle
<i>Clematis vitalba</i>	Traveller's joy
<i>Crataegus monogyna</i>	Hawthorn
<i>Cynosurus cristata</i>	Crested dog's tail
<i>Dactylis glomerata</i>	Cocksfoot
<i>Dactylorhiza fuchsii</i>	Common spotted orchid

<i>Euphrasia sp.</i>	Eyebright sp.
<i>Festuca rubra</i>	Red fescue
<i>Galium verum</i>	Ladys bedstraw
<i>Helictotrichon pratense</i>	Meadow oat grass
<i>Hieracium pilosella</i>	Mouse-ear hawkweed
<i>Hypericum perforata</i>	Perforate St John's wort
<i>Leucanthemum vulgare</i>	Ox-eye daisy
<i>Linum catharticum</i>	Fairy flax
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Ophrys apifera</i>	Bee orchid
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Poa pratensis</i>	Smooth meadow grass
<i>Polygala vulgaris</i>	Common milkwort
<i>Primula veris</i>	Cowslip
<i>Prunella vulgaris</i>	Selfheal
<i>Ranunculus bulbosus</i>	Bulbous buttercup
<i>Salix caprea</i>	Goat willow
<i>Sanguisorba minor</i>	Salad burnet
<i>Senecio jacobaea</i>	Common ragwort
<i>Taraxacum officinale</i>	Dandelion agg.
<i>Thymus praecox</i>	Wild thyme
<i>Trifolium campestre</i>	Hop trefoil
<i>Trifolium dubium</i>	Lesser trefoil
<i>Trifolium pratense</i>	Red clover
<i>Trifolium repens</i>	White clover
<i>Trisetum flavescens</i>	Yellow meadow grass
<i>Vicia sepium</i>	Bush vetch
<i>Viola hirta</i>	Hairy violet

Butterflies recorded from this quarry included marbled white, meadow brown, small heath, large skipper, common blue and ringlet.

### **Charlton Kings Common - area cleared of bramble**

This area comprises of the western end of compartment 19. It is an area which has recently been 'cleared' of brambles. The recovery of this area is progressing well. However the continued cutting regime will be required as the bramble whilst suppressed would return rapidly if cutting ceased. A surprising rich limestone grassland flora has survived in this area and whilst the community structure is still rather poorly developed it is nevertheless responding well to restoration.

The following species were recorded in this area.

<i>Acinos arvensis</i>	Basil thyme
<i>Agrimonia eupatoria</i>	Hemp agrimony
<i>Agrostis stolonifera</i>	Creeping bent
<i>Anthoxathum odoratum</i>	Sweet vernal grass
<i>Arrhenatherum elatius</i>	False oat grass
<i>Brachypodium pinnatum</i>	Tor grass
<i>Centaurea scabiosa</i>	Greater knapweed
<i>Chamaenerion angustifolium</i>	Rosebay willowherb
<i>Cirsium arvense</i>	Creeping thistle
<i>Dactylorhiza fuchsii</i>	Common spotted orchid
<i>Festuca rubra</i>	Red fescue
<i>Filipendula vulgaris</i>	Dropwort
<i>Galium mollugo</i>	Hedge bedstraw

<i>Galium verum</i>	Ladys bedstraw
<i>Helianthemum nummularium</i>	Common rock rose
<i>Heracleum sphondylium</i>	Hogweed
<i>Hypericum perforatum</i>	Perforate St Johns wort
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Potentilla erecta</i>	Tormentil
<i>Primula veris</i>	Cowslip
<i>Rubus fruticosus</i>	Bramble
<i>Sanguisorba minor</i>	Salad burnet
<i>Teucrium scorodonia</i>	Wood sage
<i>Trifolium pratense</i>	Red clover
<i>Trifolium repens</i>	White clover
<i>Ulex europaeus</i>	Common gorse

Roman snail was found breeding in this area.

### **Compartment 23 - areas beyond ex bramble**

This area consists of good quality limestone grassland which is becoming dominated in parts by false oat grass – an indication that the area is changing as a result of a lack of grazing.

<i>Acinos arvensis</i>	Basil thyme
<i>Agrostis stolonifera</i>	Creeping bent
<i>Anthoxanthum odoratum</i>	Sweet vernal grass
<i>Arrhenatherum elatius</i>	False oat grass
<i>Brachypodium pinnatum</i>	Tor grass
<i>Bromus erectus</i>	Upright brome
<i>Carex flacca</i>	Glaucous sedge
<i>Centaurea nigra</i>	Black knapweed
<i>Centaurea scabiosa</i>	Greater knapweed
<i>Cirsium arvense</i>	Creeping thistle
<i>Cirsium eriophorum</i>	Woolly thistle
<i>Crataegus monogyna</i>	Hawthorn - seedlings
<i>Dactylis glomerata</i>	Cocksfoot
<i>Dactylorhiza fuchsii</i>	Common spotted orchid
<i>Filipendula vulgaris</i>	Dropwort
<i>Galium mollugo</i>	Hedge bedstraw
<i>Galium verum</i>	Ladys bedstraw
<i>Helictotrichon pratense</i>	Meadow oat grass
<i>Hypericum perforatum</i>	Perforate St Johns wort
<i>Linum catharticum</i>	Fairy flax
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Pimpinella saxifraga</i>	Burnet saxifrage
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Polygala vulgaris</i>	Common milkwort
<i>Potentilla erecta</i>	Tormentil
<i>Prunella vulgaris</i>	Selfheal
<i>Rosa arvensis</i>	Field rose
<i>Rubus fruticosus</i>	Bramble
<i>Sanguisorba minor</i>	Salad burnet
<i>Stachys officinalis</i>	Betony
<i>Teucrium scorodonia</i>	Wood sage
<i>Thymus praecox</i>	Wild thyme
<i>Trifolium pratense</i>	Red clover

<i>Trisetum flavescens</i>	Yellow meadow grass
<i>Viola hirta</i>	Hairy violet

Butterflies recorded here included marbled white, meadow brown and small heath. The day flying moth the burnet companion was recorded in C23. The long grassland here also supported a strong colony of the meadow grasshopper (*Chorthippus parallelus*). The 'quarry edge' between C19 and C23 is also of conservation value. It consists of a steep bank around 1.5m high and is largely free of vegetation and is south facing – as a result it is of value to a range of burrowing invertebrates particularly hymenoptera.

### **Compartment 24 -uncut section – rank grassland**

This area is very rank grassland rapidly being invaded by scrub. It contains the vestiges of limestone grassland. The area could be restored if the scrub was removed and either cutting or grazing was established. If no action is taken the surviving interest will be lost.

The species recorded in this area were:

<i>Arrhenatherum elatius</i>	False oat grass
<i>Brachypodium pinnatum</i>	Tor grass
<i>Briza media</i>	Quaking grass
<i>Bromus erectus</i>	Upright brome
<i>Carex flacca</i>	Glaucous sedge
<i>Clematis vitalba</i>	Traveller's joy
<i>Crataegus monogyna</i>	Hawthorn - seedlings
<i>Dactylorhiza fuchsii</i>	Common spotted orchid
<i>Filipendula vulgaris</i>	Dropwort
<i>Helictotrichon pratense</i>	Meadow oat grass
<i>Hypericum perforatum</i>	Perforate St Johns wort
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Rubus fruticosus</i>	Bramble
<i>Sanguisorba minor</i>	Salad burnet
<i>Succisa pratensis</i>	Devil's bit scabious
<i>Ulex europeus</i>	Common gorse

### **Compartment 25 Kings Charlton Common**

This is an extensive area of species rich limestone grassland. It possesses a species list similar of the richer parts of C19, C4 and C10.

This grassland appears to be a matrix of CG3, CG4 and CG5. The following constants are to be found throughout this area: *Brachypodium pinnatum*, *Briza media*, *Bromus erectus*, *Carex flacca*, *Cirsium acaule*, *Festuca ovina*, *Helianthemum nummularium*, *Hieracium pilosella*, *Lotus corniculatus*, *Plantago lanceolata*, *Sanguisorba minor* and *Thymus praecox*.

Although not recorded as part of this survey this area also contains a number of the site's rare species such as musk orchid and fly orchid. The conservation of this large area as open grassland is a priority.

### **Wildflower meadow – off the site**

Whilst not part of the 'official' survey site the field immediately to the south of C32 is of considerable conservation interest. It is a surviving limestone grassland which is

species rich. It also appears to contain a number of limestone flushes which are dominated by calcicole mosses. The field contains hundreds of common spotted, pyramidal and twayblade orchids along with crosswort, yellow rattle and cowslip. It would make a valuable addition to the area subject to the Management Plan as it clearly contains a different limestone grassland sub community.

A large colony of common green grasshoppers (*Omocestus viridulus*) was also recorded (not recorded elsewhere during the survey).

### **Woodland/scrub at foot of Charlton Kings Common**

This section consists of compartments 27, 29, 30,31 and 33. In essence this appears to be fragments of ancient woodland occurring at the base of the steep slopes of Charlton Kings Common.

These woodland strips are species rich in terms of their trees and scrubs but the ground flora is sparse as the trees cast a deep shade. The presence however of a number of species of shade loving orchids (Broad-leaved helleborine and White helleborine) along with strong colonies of twayblade prove the nature conservation value of this area. The full list of species recorded from this area is as follows:

<i>Acer campestre</i>	Field maple
<i>Acer pseudoplatanus</i>	Sycamore
<i>Ajuga reptans</i>	Bugle
<i>Allium ursinum</i>	Ramsons
<i>Arctium minus</i>	Lesser burdock
<i>Arum maculatum</i>	Lords and ladies
<i>Betula pendula</i>	Silver birch
<i>Brachypodium sylvaticum</i>	False brome
<i>Cephalanthera damasonium</i>	White helleborine
<i>Clematis vitalba</i>	Travellers joy
<i>Corylus avellana</i>	Hazel
<i>Crataegus monogyna</i>	Common hawthorn
<i>Dactylorhiza fuchsii</i>	Common spotted orchid
<i>Dryopteris felix-mas</i>	Male fern
<i>Epipactis helleborine</i>	Broad-leaved helleborine
<i>Fagus sylvatica</i>	Beech
<i>Fraxinus excelsior</i>	Ash
<i>Geranium robertianum</i>	Herb Robert
<i>Geum urbanum</i>	Herb Bennett
<i>Hedera helix</i>	Ivy
<i>Hypericum perforatum</i>	Perforate St John's wort
<i>Ligustrum vulgare</i>	Wild privet
<i>Listera ovata</i>	Twayblade
<i>Malus sylvestris</i>	Wild apple
<i>Mercurialis perennis</i>	Dog's mercury
<i>Prunus spinosa</i>	Blackthorn
<i>Quercus robur</i>	Pedunculate oak
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rhododendron ponticum</i>	Rhododendron
<i>Rosa canina</i>	Dog rose
<i>Rubus fruticosus</i>	Bramble
<i>Salix capraea</i>	Goat willow
<i>Salix cinerea</i>	Grey willow
<i>Sambucus nigra</i>	Elder

<i>Sanicula europaea</i>	Sanicle
<i>Silene dioica</i>	Red campion
<i>Tamus communis</i>	Black bryony
<i>Viola hirta</i>	Hairy violet

The round mouthed snail (*Pomatias elegans*) was recorded in this area. This is a calcicole snail which is declining rapidly in the UK.

### **Compartment 16 Glade in woodland**

This is an extensive glade in the middle of the plantation woodland C15. It is an area of species rich grassland which also contains areas of invading scrub.

Species recorded were as follows:

<i>Acinos arvensis</i>	Basil thyme
<i>Anthoxathum odoratum</i>	Sweet vernal grass
<i>Arrhenatherum elatius</i>	False oat grass
<i>Betula pendula</i>	Birch
<i>Blackstonia perfoliata</i>	Yellow wort
<i>Brachypodium pinnatum</i>	Tor grass
<i>Bromus erectus</i>	Upright brome
<i>Carex flacca</i>	Glaucous sedge
<i>Centaurea scabiosa</i>	Greater knapweed
<i>Cirsium acaule</i>	Stemless thistle
<i>Clematis vitalba</i>	Traveller's joy
<i>Dactylis glomerata</i>	Cocksfoot
<i>Dactylorhiza fuchsii</i>	Common spotted orchid
<i>Fragaria vesca</i>	Wild strawberry
<i>Fraxinus excelsior</i>	Common ash
<i>Galium cruciata</i>	Crosswort
<i>Galium mollugo</i>	Hedge bedstraw
<i>Galium verum</i>	Ladys bedstraw
<i>Helianthemum nummularium</i>	Common rock rose
<i>Holcus lanatus</i>	Yorkshire fog
<i>Hypericum perforatum</i>	Perforate St Johns wort
<i>Hypochaeris radicata</i>	Common cat's ear
<i>Ligustrum vulgare</i>	Wild privet
<i>Listera ovata</i>	Common twayblade
<i>Lotus corniculatus</i>	Bird's foot trefoil
<i>Mentha aquatica</i>	Water mint
<i>Pimpinella saxifraga</i>	Burnet saxifrage
<i>Primula veris</i>	Cowslip
<i>Prunella vulgaris</i>	Selfheal
<i>Quercus robur</i>	Pedunculate oak
<i>Rubus fruticosus</i>	Bramble
<i>Salix capraea</i>	Goat willow
<i>Sanguisorba minor</i>	Salad burnet
<i>Scrophularia nodosa</i>	Common figwort
<i>Silene vulgaris</i>	Bladder campion
<i>Tamus communis</i>	Black bryony
<i>Teucrium scorodonia</i>	Wood sage
<i>Thymus praecox</i>	Wild thyme
<i>Veronica chamaedrys</i>	Germander speedwell

*Viburnum lanata*  
*Viola hirta*

Wayfaring tree  
Hairy violet

### **Compartment 37 Daisybank Field**

This field appears not to consist of limestone grassland and may in fact be an abandoned agricultural field. It does not contain species of particular conservation value. In parts it is MG1 grassland. However its dense structure means that it is of importance to many invertebrates such as orthoptera and spiders as well as being an important feeding and nesting area for birds.

It is clearly an important amenity area for local people. It continued management as rough grassland which patches of bramble and scrub would provide a useful addition to the areas of high conservation value to the south.

The species recorded in C36 were as follows:

<i>Achillea millefolium</i>	Yarrow
<i>Agrostis stolonifera</i>	Creeping bent
<i>Anthriscus sylvestris</i>	Cow parsley
<i>Arrhenatherum elatius</i>	False oat grass
<i>Calystegia sepium</i>	Hedge bindweed
<i>Centaurea nigra</i>	Black knapweed
<i>Cerastium fontanum</i>	Common mouse ear
<i>Cirsium arvense</i>	Creeping thistle
<i>Cynosurus cristata</i>	Crested dog's tail
<i>Dactylis glomerata</i>	Cocksfoot
<i>Dactylorhiza fuchsii</i>	Common spotted orchid
<i>Galium aparine</i>	Cleavers
<i>Galium verum</i>	Ladys bedstraw
<i>Heracleum sphondylium</i>	Hogweed
<i>Holcus lanatus</i>	Yorkshire fog
<i>Lolium perenne</i>	Perennial rye grass
<i>Odontites verna</i>	Red bartsia
<i>Phleum pratense</i>	Timothy grass
<i>Plantago lanceolata</i>	Ribwort plantain
<i>Poa trivialis</i>	Rough meadow grass
<i>Potentilla anserina</i>	Silverweed
<i>Ranunculus repens</i>	Creeping buttercup
<i>Rubus fruticosus</i>	Bramble
<i>Rumex sanguineus</i>	Wood dock
<i>Sambucus nigra</i>	Elder
<i>Taraxacum officinale</i>	Dandelion agg.
<i>Trifolium pratense</i>	Red clover
<i>Trifolium repens</i>	White clover
<i>Trisetum flavescens</i>	Yellow meadow grass
<i>Alopecurus pratensis</i>	Meadow foxtail

### **Conclusions**

Leckhampton Hill and Kings Charlton Common SSSI is clearly a site of national conservation value. Although considerable areas of the grassland are lost to scrub or are suffering from sub-optimal management the implementation of a suitable and sympathetic Management Plan would ensure that the conservation value of the areas in favourable conservation status were maintained and where favourable conservation status is not being attained this could be reversed.

## **APPENDIX 10**

### **BOTANICAL SURVEY OF SELECTED QUARRIES, LECKHAMPTON HILL SSSI, GLOUCESTERSHIRE**

#### ***1. Introduction***

This survey was commissioned by English Nature in order to investigate the botanical interest of a number of disused quarries of geological importance at Leckhampton Hill SSSI. The purpose of the survey was to assess the biological importance of the quarries, prior to any geological restoration work in order to resolve any possible conflicts in objectives at an early stage.

#### ***2. Methods***

A Phase 1 / rapid Phase 2 survey was undertaken at eleven quarries at Leckhampton Hill SSSI on 15<sup>th</sup>, 16<sup>th</sup> and 18<sup>th</sup> July 2002. The size of quarry varied from the very small ( 0.2 ha - Trye's Quarry) to fairly large (eg 2 ha plus at Brownstone). Botanical community species cards were completed for each site with species recorded on a DAFOR scale. Areas of important plant interest and scarce species were mapped. Areas of semi-natural habitat were defined to community/sub-community level by a surveyor experienced in the NVC. Quadrat information for NVC was not required.

#### ***3. Results***

The results of the survey are described in some detail in Table 1, and a summary of vegetation communities is given in Section 4. Lists of species and relative abundance on a DAFOR scale for each quarry site were made on English Nature Grassland Community Cards.

The quarries were ranked for botanical importance on a simple three point scale, from low importance, through medium to high. Whilst this evaluation is relatively subjective, the following criteria were used to make a judgement:

- (a) Unimproved or semi-improved calcareous grassland of types CG2 – CG5 are communities of UK importance and were more highly valued than CG4

grassland. The mesotrophic MG1d sub-community was also considered of value.

- (b) Species-richness was used as an indication of sward quality (eg CG3 swards often differ in quality depending on numbers of species characterising the sward)
- (c) In the context of the quarries, those with larger areas of grassland types CG2 – CG5 will score more highly than those with smaller areas; conversely quarries with a high cover of scrub will score less highly than those that are more open.
- (d) Quarries with a good range (number) of grassland vegetation sub-communities were ranked more highly than those with just one or two.
- (e) Species that are scarce (regionally or nationally) are also taken into consideration eg in the context of Leckhampton, Basil Thyme *Acinos arvensis*) and reptiles such as Adders.
- (f) Some scrub may be of importance eg areas with Wayfaring Tree *Viburnum lantana*, Yew *Taxus baccata* or those that support populations of Broad-leaved Helleborine *Epipactus helleborine*.

#### **4. Summary Description of Communities**

The quarries are subject to varying degrees of invasion by shrubs and trees. The extent of this varies and includes (in Phase 1 parlance) scattered scrub, continuous scrub, broad-leaved semi-natural woodland and coniferous plantation.

Screes tend to be dominated by either scattered or continuous Ash *Fraxinus excelsior* often with a sparse understorey of Wood Sage *Teucrium scorodonia*, willowherb (eg *Epilobium montanum*) bramble and often very little else.

In continuous mature scrub (often grading into young woodland) on more stable slopes, there is a variety of woody species (Ash, Hawthorn *Crataegus monogyna*, Sycamore *Acer pseudoplatanus*, Downy Birch *Betula pubescens*, Elder *Sambucus nigra* and occasionally Wayfaring Tree *Viburnum lantana*), and on north-facing slopes an abundance of mosses (eg *Rhytidiadelphus triquetrus* and *Ctenidium molluscum*), ferns (eg Hart's-tongue *Phyllitis scolopendrium*) and Ivy *Hedera helix*. Orchids such as Twayblade *Listera ovata* and Broad-leaved Helleborine *Epipactus helleborine* were encountered fairly frequently on the north-facing slopes (eg Incline Quarry, Limekilns and Daisybank Quarry).

Where scrub has not invaded, unimproved grassland may form a patchy or continuous cover on shallow soils over screes and Oolitic gravels, often on steep slopes. Whilst most of these areas support calcareous grasslands, deeper soils, eg on some quarry floors may support more mesophytic grassland, often an ungrazed MG1 *Arrhenatheretum* community. The latter tends to dominate the long thin section of Brownstone Quarry (surveyed as separately from the main Brownstone Quarry and called the 'Cutting'), parts of Brownstone Quarry itself and smaller areas at Firsbrake / Ferncliff and Daisybank. At Brownstone Cutting, the MG1 is species-rich and large parts of this constitute the Wild Parsnip *Pastinaca sativa* sub-community (MG1d) with its calcicolous constituents. However, other areas at Brownstone are rank and dominated by nettles and Hogweed *Heracleum spondylium* and other ruderal species of the nettle *Urtica* sub-community (MG1b).

The calcareous grassland in the quarries conforms largely to the *Hieracium* sub-community of CG5, the *Bromus erectus* – *Brachypodium pinnatum* grassland. This community is typical of steep, fairly unstable slopes on thin soils derived from Oolitic limestones, as in the Cotswolds. The 'typical' sub-community CG5a can be found on less steep slopes, usually around the lower or upper parts of the quarries (eg Brownstone Quarry, parts of Firsbrake and Ferncliff and the lower, flatter slopes of Charlton Kings Crags). *Bromus erectus* grassland or CG3 is often found on quarry floors, the CG3a community having some affinities with CG5b or even CG1 where the soils are shallow, and the CG3c community (eg at Brownstone Quarry) grading into MG1d (the calcareous end of *Arrhenatherum* grasslands), or MG1e (the mesotrophic counterpart with Common Knapweed *Centaurea nigra*). Unusually however, the floor of Trye's Quarry appears to be closer to CG2a *Festuca ovina* – *Avenula pratensis* grassland, *Cirsium acaule* – *Asperula cyanchica* sub-community than CG3, although Meadow Oat-grass *Avenula pratensis* is relatively rare and Crested Hair-grass *Koeleria macrantha* was not recorded.

Where there are ledges in quarry faces, there are often small areas of (unimproved) calcareous grassland with Upright Brome *Bromus erectus* and / or Tor Grass *Brachypodium pinnatum* and hawkweed *Hieracium* spp Sect *Vulgata* usually defining a CG5 community. On some of the south and west facing cliff faces, there may be a colourful combination of Viper's Bugloss *Echium vulgare*, and the 'aliens', Red Valerian *Centranthus ruber* and White Stonecrop *Sedum album*. Fissures in the faces often support small shrubs such as Hawthorn, Ash or Rose *Rosa* sp.

To summarise, the following NVC communities were identified on the site:

CG2a *Festuca ovina* – *Avenula pratensis* grassland, *Cirsium acaule* – *Asperula cyanchica* sub-community. Quadrats recommended to verify.

CG3a *Bromus erectus* grassland, typical sub-community. Quadrats recommended in this community in Brownstone Quarry.

CG3c *Bromus erectus* grassland, *Knautia arvensis* – *Bellis perennis* sub-community

CG4b *Bachypodium pinnatum* grassland, *Centaurea nigra* – *Leontodon hispidus* sub-community

CG4c *Bachypodium pinnatum* grassland, *Holcus lanatus* sub-community

CG5a *Bromus erectus* – *Brachypodium pinnatum* grassland, typical sub-community

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

MG1b *Arrhenatherum elatius* grassland, *Urtica dioica* sub-community

MG1d *Arrhenatherum elatius* grassland, *Pastinaca* sub-community

MG1e *Arrhenatherum elatius* grassland, *Centaurea nigra* sub-community

MG5b *Cynosurus cristatus* – *Centaurea nigra* grassland, *Galium verum* sub-community

**INTEREST FEATURES OF SELECTED QUARRIES, LECKHAMPTON HILL SSSI**

<b>Description</b>	<b>Features</b>	<b>Importance ranking</b>
<b>Limekilns – Middle &amp; Upper</b>		
<p>North-facing, high quarry faces with extensive scree. Continuous scrub and (young) woodland on slopes and just below face. Small areas of calcareous grassland on flats. Little ground flora (gf) under dense <i>Fraxinus</i> and <i>Fagus</i>. Open scree with scattered <i>Fraxinus</i> saplings, <i>Teucrium scorodonia</i>, <i>Geranium robertianum</i>, <i>Senecio jacobaea</i>, <i>Epilobium montanum</i>. Ferns eg <i>Polystichum aculeatum</i> &amp; <i>Phyllitis scolopendrium</i> and extensive bryophytes under shade, plus <i>Epipactus helleborine</i>. May develop into W8e or W8g over time. <i>Larix</i> plantation with poor gf at top of quarry. Best grassland on west top of upper quarry – but see features. <i>Arabis hirsuta</i> present in CG5b  <i>Listera ovata</i> and <i>Anacamptis pyramidalis</i> also present.                      Rock face includes <i>Hieracium</i> sp., <i>Echium vulgare</i>, and the moss <i>Ctenidium molluscum</i>                      Estimated scrub/woodland: grassland ratio 80:20.</p>	<p>Small, but significant areas of CG5b, CG4a &amp; possibly CG4b on both levels and CG5b on tops.</p> <p>Damp W8 woodland may be of some interest, though secondary origin.</p>	<p>Medium.</p>
<b>Daisybank</b>		
<p>Various aspects, but mainly north-north-west facing. Open basin, but almost entirely surrounded by continuous scrub, with scattered young scrub elsewhere, including <i>Viburnum lantana</i>. <i>Epipactus helleborine</i> present. Part <i>Larix</i> plantation. Several areas of loose scree on upper, north-facing slope, with young <i>Fraxinus</i> and <i>Teucrium</i>. Short rabbit-grazed grassland areas (eg in basin) with anthills and ranker areas to sides with mainly CG5b with greater cover of <i>Brachypodium pinnatum</i> than <i>Bromus erectus</i>. High bryophyte cover. <i>Anacamptis</i> present.                      In basin, a mosaic of more mesophytic vegetation, with CG3c and <i>Arrhenatherum</i> and <i>Brachypodium pinnatum</i> spreading towards scrub edge (cf CG4b / MG1e).                      Estimated scrub: grassland ratio 50: 50 (depending on where quarry boundary lies!).</p>	<p>Mosaic of grassland areas interesting though not extensive. Scrub development detrimental to grassland.</p>	<p>Medium.</p>

<b>Charlton Kings</b>		
<p>North and east facing slopes. Fairly open quarry, with extensive loose scree and small quarry faces.</p> <p>Scrub mainly scattered, but small area of dense scrub on north-western facing (top) edge and mature scrub (<i>Fraxinus</i>, <i>Betula pubescens</i>) on lower slopes to base of quarry.</p> <p>Open bottom, sides and top with MG5b, including <i>Anacamptis pyramidalis</i>. Here <i>Brachypodium pinnatum</i> of higher cover than <i>Bromus erectus</i>. Interesting, species-rich areas close to CG1 on top of hillocks (presumably quarry tailings) in basin eg at SO 9531 1868.</p> <p>Estimated scrub: grassland ratio 25 (30): 75 (70). However, boulders / scree cover 40 – 50% of slopes.</p>	<p>Good species-rich examples of CG5b, though <i>Arrhenatherum</i> is creeping in along upper sides and top. Rabbit-grazed areas in basin in best condition. Roman snail. Good for invertebrates.</p>	<p>High.</p>
<b>Brownstone – narrow band</b>		
<p>West-facing, low quarry face (c. 2-3 m). Scattered scrub, especially <i>Crataegus</i>; open <i>Larix</i> plantation southern end. Face with CG5b (fairly spp-poor) grading into MG1b at base. Ruderals dominate the northern end (eg <i>Arrhenatherum</i>, <i>Rubus fruticosus</i>, <i>Chamaenerion</i>, <i>Heracleum</i>, <i>Artemisia vulgaris</i>, <i>Ulex europaea</i>) and there is extensive MG1b where the quarry base widens in the south. MG1d grassland on quarry top with <i>Pastinaca sativa</i>, <i>Knautia arvensis</i> and <i>Centaurea scabiosa</i>.</p> <p>Estimated scrub: grassland ratio – 15: 85.</p>	<p>MG1d is species-rich and of high interest; good invertebrate habitat. May be derived from CG3.</p> <p>Adders on top of site (north) and close to the main quarry area (south). Roman snail.</p>	<p>Low for face. High for top.</p>
<b>Brownstone - main</b>		
<p>Wide, flat bottomed quarry with shallow soils, large bare areas and low worked faces. Range of aspects.</p> <p>Quarry bottom difficult to assign to NVC; superficially like an open CG1/2, but missing some key elements of these communities. Probably an unusual variant of CG3a since constant, but low cover of <i>Bromus erectus</i>. <i>Anacamptis</i> well distributed throughout site.</p> <p>East-facing (boundary) side, both <i>Arrhenatherum</i> and <i>Bromus erectus</i> abundant, therefore mosaic of CG3c and MG1d. This area associated with <i>Orphrys apifera</i>. West-facing boundary associated with MG5a (north) and MG1e (south). Southern end of site mainly CG5a with some MG1e.</p>	<p>Adders. Roman snail. Of exceptionally high floral interest. Range of NVC communities. Small population of <i>Orphrys apifera</i>; <i>Acinos arvensis</i> (Basil Thyme) at photograph 3 on Geode map; SO 9510 1809.</p>	<p>High.</p>

<b>Salterley (Wagon)</b>		
<p>South-facing, high vertical face c 15 – 20m. Sides also facing east and west. Car park at base of quarry.</p> <p>East and west sides scrub-flanked. Mature scrub on east side with abundant <i>Coryllus</i>, bryophyte-rich with <i>Hedera</i> dominating ground layer.</p> <p>Quarry face with CG5b ledge communities – including <i>Hieracium</i> sp., <i>Helianthemum nummularia</i>, <i>Centranthus rubra</i>, <i>Valeriana officinalis</i>, <i>Sedum</i> sp., and <i>Teucrium</i> – probably an unusual variant of CG5b. Also some scrub on lower scree covered slopes.</p> <p>Extensive fissures in face – these may be of importance to bats.</p> <p>The top boundary of the quarry is a mosaic of CG3a, MG1d and CG5a – all nice.</p> <p>Spoil at the base of the quarry face is a fine-fescue dominated sward that is heavily grazed by rabbits. It is difficult to determine to NVC but contains plants that thrive in mesophytic conditions. (Probably derived from MG1d).</p> <p>Excluding car-park area (and face), estimated scrub: grassland ratio – 85:15.</p>	<p>Approx. 10% of the quarry face is vegetated, largely with grasses and herbs – these communities likely of high importance, certainly visually very attractive.</p> <p>Top of quarry has important grassland communities that should not be disturbed during any geological restoration.</p> <p>Fissures may be of importance to bats.</p>	<p>Quarry face, high.</p> <p>Lower slopes – low, except for <i>Coryllus</i> scrub - medium.</p> <p>Top – high.</p>
<b>Firsbrake &amp; Ferncliff</b>		
<p>These two quarries form a north-south continuum and therefore surveyed together.</p> <p>Height of west-facing quarry cliff averages approx 10m. Very steep slopes to quarry face, difficult to ascertain where quarry area ends but lower slopes densely wooded, grading upwards into both dense and scattered scrub to base of face. Face with <i>Centranthus rubra</i>, <i>Hieracium</i> sp. etc.</p> <p>Fissures in face may be of importance to bats. Cave at northern end of Ferncliff could be investigated for bats. Jackdaws present.</p> <p>Southern slopes on southern end of Firsbrake and northern end of Ferncliff have good quality CG5a/b grasslands which should not be disturbed during geological restoration.</p> <p>Further north grasslands are found in pockets on slope, mainly above the main path. Largely comprises CG5a and CG4b/c with <i>Arrhenatherum</i> (MG1d) invading in places. <i>Anacamptis</i> and <i>Listera ovata</i> present. Largely rank except where close to footpath.</p> <p>There is an area of extensive nettles and brambles under steep quarry face in Ferncliff.</p> <p>Estimated scrub: grassland ratio – 80(85): 20(15) - but difficult to estimate on ground.</p>	<p>Relatively small area of grassland present, much rank. However, quarry species list is high. CG5b grasslands should be protected.</p> <p>Fissures and cave may be of importance to bats.</p>	<p>CG5b – high.</p> <p>Quarry face if bats – high.</p> <p>Rest – medium to low.</p>

<b>Trye's</b>		
<p>Small, relatively undulating quarry much used by pedestrians and mountain bikers, criss-crossed by paths. Various aspects, but mainly west-facing. Floor grazed very short by rabbits and consists of a very species-rich fine fescue turf with both mesophytic and calcicolous elements. Probably CG2a (cf <i>Pseudoscleropodium purum</i> – <i>Prunella vulgaris</i> variant). But note no <i>Koeleria macrantha</i> and very little <i>Avenula pratensis</i> usual in CG2 whereas <i>Brachypodium pinnatum</i> and <i>Bromus erectus</i> are constant although present at low cover.</p> <p>Scrub / young woodland around northern and western sides and small face. Where less grazed, mainly CG5a, but CG4b also present. <i>Anacamptis</i> and <i>Listera ovata</i> present in this grassland.</p> <p>Estimated scrub: grassland ratio – 40:60.</p>	<p>Interesting basin vegetation if CG2a. CG5a of value.</p>	<p>Medium.</p>
<b>Devil's Chimney</b>		
<p>Mainly west-facing with steep slopes below quarry face, and upon which the Devil's Chimney stands. Much scree.</p> <p>Dense young woodland / scrub (including <i>Sorbus cf aria</i>) at bottom of slope. Scattered scrub (including <i>Cotoneaster</i> sp.) elsewhere including just below the chimney.</p> <p>Open slopes mainly a mosaic of CG5a and CG5b, although grades into a ranker CG4b under scattered scrub. <i>Anacamptis</i> present.</p> <p>Estimated scrub: grassland ratio – 20:80 (latter includes rock – scree).</p>	<p>Mosaic of CG5a and CG5b. Grassland would benefit from sympathetic removal of scattered scrub.</p>	<p>High.</p>
<b>Incline Quarry</b>		
<p>Predominantly west and north facing quarry. Vegetation comprising mainly young woodland and scrub dominated by <i>Betula pubescens</i> and with a sparse gf. East side and quarry floor more open, with inclines / broad paths used by mountain bikers. Frequent ash saplings on quarry floor with <i>Teucrium</i>, <i>Brachypodium sylvaticum</i>, <i>Epipactus helleborine</i>, <i>Dactylorhiza fuchsii</i>, <i>Fragaria vesca</i> and <i>Galium mollugo</i>. East side with relatively unstable quarry 'tailings', much of it bare of vegetation, leaving small areas of calcareous grassland more-or-less conforming to CG5, but quite mesophytic, of relatively poor quality and with no <i>Helianthemum nummularia</i>. Orchid populations here too especially <i>Epipactus</i>.</p> <p>Estimated scrub: grassland: bare ground ratio – 60 :15 :25 (latter is shallow rendzina type soil and calcareous rubble).</p>	<p>Area of CG5a grassland, though very small in comparison to total area. Good populations of <i>Epipactus helleborine</i>, <i>Listera ovata</i> &amp; <i>Dactylorhiza fuchsii</i>.</p>	<p>Low.</p>

<b>Charlton Kings Crag</b>		
<p>Steep, north-facing slope, with low exposed quarry face to top, below which is an area of scree, the latter dominated by young <i>Fraxinus</i> with very little else. This is an open, exposed site with a good cover of grassland although much of it rather rank and dominated by <i>Brachypodium</i>, often accompanied by <i>Arrhenatherum</i>, <i>Lonicera</i>, <i>Rubus fruticosus</i> and <i>Rosa</i>. It is a mosaic of CG5a and CG4b/c, with the former the most abundant community. CG4 occurs in deeper, flatter pockets, close to the scrub area. The substrate does not appear to be strongly calcareous, since species such as <i>Helianthemum</i> are virtually absent, and <i>Succisa pratensis</i> is an unusual feature of the better quality CG5a community. (NB <i>Succisa</i> is preferential in sub-communities of both CG2 and MG5 grassland but the overall physiognomy of the grassland does not fit these types).</p> <p>On the upper boundary of the site, <i>Crataegus</i> and <i>Ulex europaeus</i> scrub grades into a plateau area of good quality MG5b grassland (the latter community not part of the quarry itself).</p>	<p>CG5a and CG4b/c community is of fairly poor quality as indicated by species richness) below quarry face. <i>Brachypodium</i> is tending to out-compete <i>Bromus</i> overall. However, further east, quality improves measurably. Care should be taken to avoid disturbance to <i>Succisa</i> areas. Roman snail.</p>	<p>Low for 75% of site. However <i>Succisa</i> areas, (c. 25%) graded medium to high.</p>

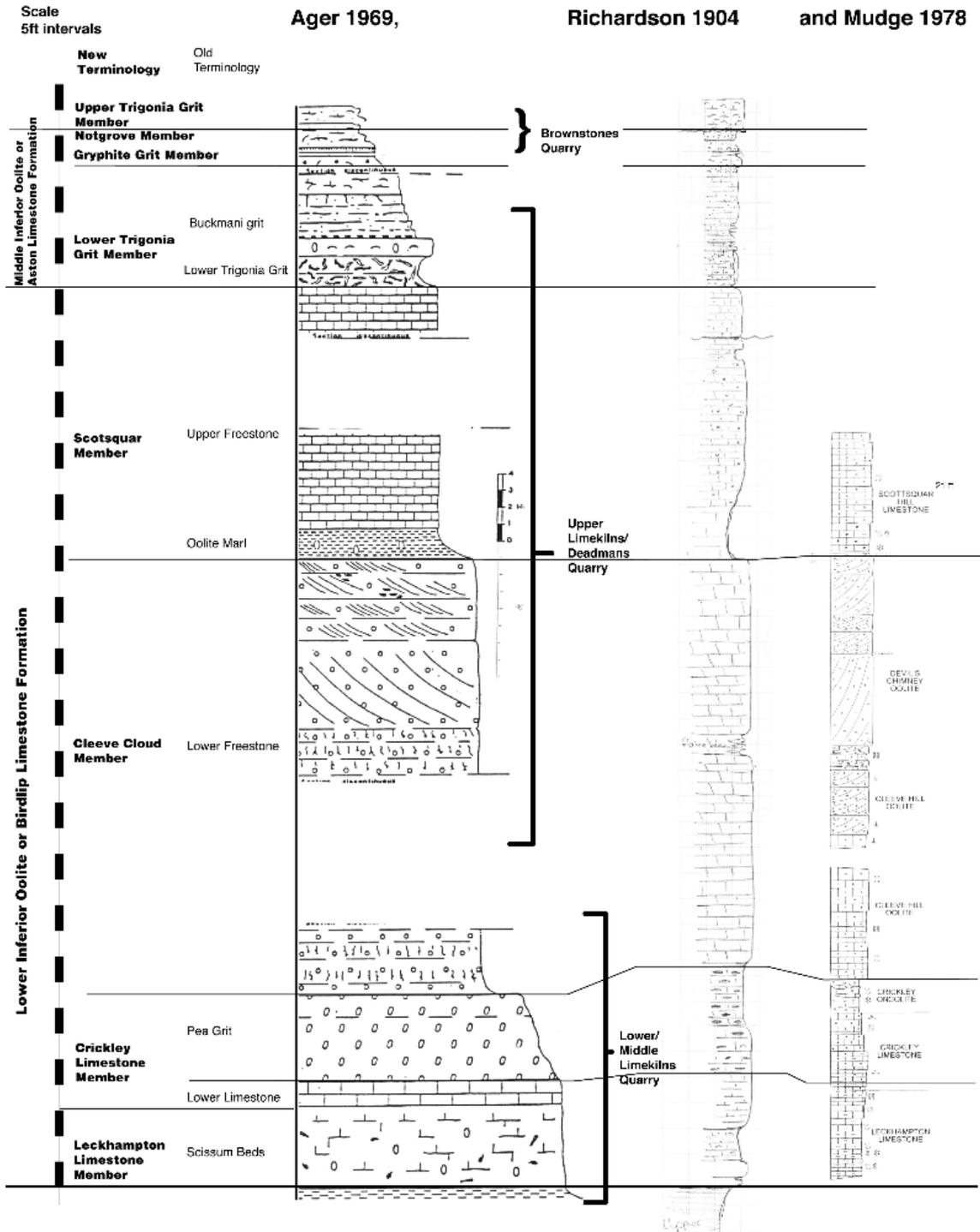
### Key to NVC grassland communities in table

- CG2a *Festuca ovina* – *Avenula pratensis* grassland, *Cirsium acaule* – *Asperula cyanchica* sub-community
- CG3a *Bromus erectus* grassland, typical sub-community
- CG3c *Bromus erectus* grassland, *Knautia arvensis* – *Bellis perennis* sub-community
- CG4b *Bachypodium pinnatum* grassland, *Centaurea nigra* – *Leontodon hispidus* sub-community
- CG4c *Bachypodium pinnatum* grassland, *Holcus lanatus* sub-community
- CG5a *Bromus erectus* – *Brachypodium pinnatum* grassland, typical sub-community
- CG5b *Bromus erectus* – *Brachypodium pinnatum* grassland, *Hieracium* spp. sub-community
- MG1b *Arrhenatherum elatius* grassland, *Urtica dioica* sub-community
- MG1d *Arrhenatherum elatius* grassland, *Pastinaca* sub-community
- MG1e *Arrhenatherum elatius* grassland, *Centaurea nigra* sub-community
- MG5b *Cynosurus cristatus* – *Centaurea nigra* grassland, *Galium verum* sub-community

APPENDIX 11.

ADDITIONAL GEODIVERSITY INFORMATION

Logged Geological Sections at Leckhampton Hill



Leckhampton Quarries, 2½ miles S of Cheltenham

SO(12)950185 143 OS44 26SE, 34NE S, P  
(-) PSD, IGC  
1964

Disused quarries are found on the hill-top, and hill scarps with old quarries extend for more than a mile round the west and north sides of Leckhampton Hill. They afford magnificent sections of the highly fossiliferous Cotswold Inferior Oolite, from which in 1853 Lycett recorded 184 species. The dip is about 7° south-east. The quarries were worked for 'many centuries' until, in 1793, the Lord of the Manor developed them on a large scale, and their famous freestone was extensively used for buildings in Cheltenham.

The first geological description is by Murchison (1834), and is followed by a large literature. The thicknesses of the beds differ considerably according to different authors; the figures given below are substantially those of Richardson, 1933.

Zone	Thickness	Description
Upper Inferior Oolite	5 ft	Upper <i>Trigonia</i> Grit: hard brown limestone, shelly and oolitic; very abundant echinoids ( <i>Nuculolites sinuatus</i> ) in the surface soil, and <i>Trigonia</i> and other shells, largely as casts, in the limestone.
	missing	(= old <i>strobilata</i> Zone).
	missing	(= old <i>strobilata</i> Zone).
Middle Inferior Oolite	4 ft	Notgrove Freestone (= old <i>Witchellia</i> Zone): oolitic limestone with many broken shells; known as the 'Bored Bed'; bored by annelids and <i>Lithophagus</i> , and the surface covered with oysters; only the basal part of the complete bed is present here.
	5 ft	Gryphite Grit (= old <i>Stirrhania</i> Zone): the 'Bottom Bed', hard brown, coarse gritty iron-shot limestone, with a vast accumulation of <i>Grypharia</i> ; fauna of 42 species listed; formerly quarried for road metal and walls.
Middle Inferior Oolite	12 ft	Buckmani Grit (= old <i>diacetes</i> Zone): shelly ragstone, upper surface bored; overlying yellow sandy limestone and marl; many fossils, including large ammonites, <i>Grypharia</i> and brachiopods, many <i>Lobolites buckmani</i> .
	6 ft	Lower <i>Trigonia</i> Grit (= old <i>finlayi</i> Zone): light-brown and grey thin-bedded iron-shot and rubbly limestone, conglomerate near base; yields good bivalves, a few ammonites, and corals.
Middle Bajocian Transgression		
Lower Inferior Oolite	0-1½ ft	Snowhill Clay: yellow clayey marl.
	33 ft	Upper Freestone (= old <i>bradfordensis</i> Zone): false-bedded oolitic and marly and rubbly limestone, with corals, <i>Pentacrinus</i> , brachiopods, and bivalves; formerly quarried for lime-burning.
	10 ft	Oolitic Marl (= old <i>bradfordensis</i> Zone): cream-coloured marl famous for its beautifully preserved fossils, large brachiopods, especially <i>Plectambonites [Terebrantula] finlayi</i> in profusion, and large species of bivalves and gastropods; locally rich in corals; the crustacean <i>Eryma Gaisel</i> was described from here; 120 species listed; formerly quarried for lime-burning.
	78 ft	(see Note). Lower Freestone: massive yellowish oolitic limestone with comminuted fossils; the lower part, the 'Roestone', is false-bedded, with many fossils. The upper part forms the famous freestone, formerly extensively quarried for building; when freshly mined it is easily cut by the saw, but it hardens on exposure.
	21 ft	Pea Grit: rubbly ochraceous shelly and coarsely pisolitic beds, with masses of flattened concretions up to half an inch in diameter, described from here as the calcareous alga <i>Girvanella pisolitic</i> ; 75 species listed, with 19 species of echinoids, and crinoids, many corals, polyzoa, brachiopods, gastropods, bivalves, ammonites, belemnites and serpulæ. Formerly quarried for gate-posts and other rough work.
Lower Inferior Oolite	9 ft	Lower Limestone (= old <i>sinon</i> Zone; see Note): brown and grey oolitic and marly limestones.
	10 ft	<i>Scizum</i> Beds: ferruginous oolite, dark shelly crystalline limestone, and at base 3 ft of sandy marl with broken shells, chiefly <i>Pecten</i> and <i>Cidaris</i> spines, some ammonites, many belemnites, brachiopods, bivalves and fish remains; some <i>Lithophagus</i> boring.
	missing	missing.

Lower Jurassic	Upper Lias	Missing
	<i>Levesquei thuramense variabilis</i>	230 ft Blue micaceous shale (uppermost subzone missing).
	<i>bifrons fulvifrons tenuicostatum</i>	missing.
Middle Lias	<i>spinulosus</i>	50 ft Marlstone rock-bed.

Leckhampton Hill, rising to 978 feet above O.D., is part of the bold escarpment of the north-west flank of the Cotswolds, formed by excavation of the Severn Valley. Exposures of the upper strata are found in the extensive shallow quarries on top of the hill, the Gryphite Grit forming the floors. The rest of the succession is to be seen in the old quarries on the hillside overlooking Cheltenham, although the Upper Lias and the Marlstone (Middle Lias) are not normally exposed.

The isolated pinnacle known as the Devil's Chimney may have begun to be separated from the main outcrop only some 400-500 years ago. In the early nineteenth century it was just possible for the adventurous to jump on to it from the main hill.

The earliest traces of man on Leckhampton Hill comprise many flint-flakes, arrow-heads and scapels found in the fields round about, and dated to the Neolithic and Bronze Age. On the hill-top are ancient earthworks. A tumulus and camp are dated to the early Iron Age, about 500 B.C., and may have been constructed by the Dobuni, a powerful tribe here shortly before the Roman invasion. The hill is in the direct line of most of the ancient trackways from the south, and a path leads from the camp to a British track, the Greenway. Silver pennies of A.D. 835-901 suggest that the camp may also have been occupied during the turbulent times of Dane and Saxon conflict.

Note. The Lower Freestone: other authors give different thicknesses, up to 130 feet (Arkell, 1933).

The Lower Limestone: Wilson *et al.* (1938) p. 69, state that '... there is no evidence in Britain of a subzone of *Cycloneras strom* above the *costosum* Sub-zone.'

This is the type locality of the Buckmani Grit.

Stratigraphy of  
Leckhampton Hill,  
L. Richardson (1933)

**APPENDIX 12**  
**INFORMATION ON COMMON LAND**  
**(Correct as of 25.06.02)**

***BACKGROUND***

1. Common land comprises some 550,000 hectares - about 14% of the total land area in England and Wales, (for more details, see Facts and Figures below).
2. It is a popular misconception that common land is "owned" by everyone. This is not the case. The term "common land" derives from the fact that certain people held rights of common over the land. The different types of rights of common signified different entitlements to the product of the soil of the common, eg to the pasture, to sand and gravel, to peat, etc. Around 80% of common land is privately owned and subject to the interests of any commoners, owners enjoy essentially the same rights as the owners of other land.
3. Common land has value for a number of reasons - agricultural, recreation, economic, ecological, archaeological, landscape conservation and sporting. In the February 2000 consultation paper 'Greater Protection and Better Management of Common Land in England and Wales' the government said "Our goal is to secure the future of properly registered common land, and village greens, to ensure that the special features of such land are protected for future generations to enjoy".
4. The public have a right of access to around 20% of common land and there is informal access to many other commons. In due course, the public will have a right of access on foot to all registered common land, in accordance with the provisions contained in Part I of the Countryside and Rights of Way Act 2000. However, in some areas, restrictions on the right of access may be necessary to protect the interests of land management or wildlife.

***DEFINITIONS***

**Common Land:** is defined in section 22 of the Commons Registration Act 1965 as (a) land subject to rights of common (as defined in this Act) whether those rights are exercisable at all times or only during limited periods; (b) waste land of a manor not subject to rights of common. It does not include a town or village green or any land

which forms part of a highway but otherwise, "land" does include land covered with water.

The notes on the current registration application form advise that "for the purpose of an application after 2nd January 1970, common land may be taken to mean either (a) land which, after 2nd January 1970, became subject to rights of common ... whether those rights are exercisable at all times or only during limited periods; or (b) land which, after 2nd January 1970, became "substituted land", whether or not subject to rights of common ..."

**Rights of Common:** are defined in section 22 of the Commons Registration Act 1965 as including cattlegates or beastgates (by whatever name known) and rights of sole or several vesture or herbage or of sole or several pasture, but does not include rights held for a term of years or from year to year.

### ***FACTS AND FIGURES***

(It is impossible to ensure that figures are completely accurate at any one time, eg rights might be extinguished, land might be deregistered etc).

#### **Area:**

- There are 367,000 ha of common land in England (about 4% of the total land area);
- Nearly 50% (180,000 ha) is either wholly or partially designated as a Site of Special Scientific Interest (SSSI);
- Over 48% (178,500 ha) also lies mainly within national parks;
- 31% (113,134 ha) is wholly or partially within Areas of Outstanding Natural Beauty (AONB);
- 51.3% of all registered commons (3,608) are less than 1 ha in area - a total area of 1,072.7 ha;
- 1.3% (89 commons) are 1,000 ha or more in area - a total of 192,057 ha;
- Over half of England's common land is in Cumbria and North Yorkshire (30.7% and 21% respectively).

**Rights (when the registers were last consulted - late 1980's - early 1990's):**

- Of 7,039 common land units in England, only 34.6% had registered rights of common and these commons accounted for nearly 88% of the total area of common land;
- Of the commons with registered rights, 65% had 5 registered rights or less, 13.7% had 20 rights or more;
- Rights to graze cattle were registered on 20% of commons, sheep on 16%, horses and ponies on 13% and rights of estovers on 10%, the other main rights categories came in at below 10%;
- 24,157 rights entries were finalised in the registers but such figures are indicative given that cross-referencing, duplication of rights on adjacent commons etc create an extremely complex situation.

**Ownership:**

- At the last consultation of the registers, 1,900 commons had no known owners;
- At the time of registration, 1740 commons (other than the 47 in the ownership of traditional estates) were in private ownership, 679 had private owners for parts of the land, 1,230 were owned by parish and other councils and 431 were owned by a variety of organisations including charities, trusts etc. Many had multiple owners.

***MANAGING COMMON LAND***

In June 1998, the Department published the Good Practice Guide on Managing the Use of Common Land. The Guide was produced to provide practical solutions to problems experienced in managing common land. It is designed to assist all those who use and manage common land - landowners, commoners, local authorities, national and local countryside organisations and individuals.

***SECRETARY OF STATE CONSENTS / APPROVALS***

The Secretary of State has a number of functions under various pieces of commons legislation of which the most commonly exercised are:

(a) **Section 194 of the Law of Property Act 1925:** under this section the erection of any building or fence, or the construction of any work, which prevents or impedes access to land which was subject to rights of common on 1 January 1926, is unlawful unless the consent of the Secretary of State is obtained. If you are considering undertaking works on common land or town/village green you will need to consider whether an application for consent from the Secretary of State will be necessary. Consent under planning legislation is entirely separate - consult your local planning authority for advice. (Note: This section does not apply to metropolitan commons - see (e) below).

(b) **Section 147 of the Inclosure Act 1845:** under this section land that is common land or town or village green can be exchanged for other land so that the land given in exchange is substituted for the former common or green land. The Secretary of State is required to confirm the orders of exchange.

(c) **Section 19 of the Acquisition of Land Act 1981:** under this section an appropriation or compulsory purchase of certain types of land, including common land or town/village green land, must be subject to special parliamentary procedure unless a certificate is obtained from the Secretary of State confirming that suitable exchange land is to be given for the land taken, or that the giving of exchange land is unnecessary.

(d) **Section 193 of the Law of Property Act 1925:** under this section the owner of a common or the owner of rights of common can apply to the Secretary of State for an order of limitation which can impose restrictions or conditions on the exercise of the right of access granted to the public under the section.

(e) **Article 12 of the Schedule to the Ministry of Housing and Local Government Provisional Order Confirmation (Greater London Parks and Open Spaces) Act 1967:** under this provision, the Secretary of State can give his consent for local authorities to carry out works under powers conferred on them by articles 7 and 8 of the Schedule to the Act (generally to provide various recreational facilities or to licence others to do so, and to let buildings and enclosed areas for these purposes). Article 17 of the Act makes specific provisions relating to land for construction, widening and alteration of streets. Because of specific metropolitan commons legislation, section 194 of the Law of Property Act 1925 does not apply to these commons.

## ***FREQUENTLY ASKED QUESTIONS***

### **Question - Doesn't common land belong to everyone?**

**Answer** - 80% of common land is privately owned. It is a popular misconception that common land belongs to everyone. This is not so. The term "common land" derives from the fact that certain people held rights of common over the land. The different types of rights of common signified different entitlements to the product of the soil of the common, eg to the pasture, to sand and gravel, to peat, etc.

### **Question - Are the Commons Commissioners in overall charge of all common land?**

**Answer** - No. Common land is essentially the same as any other privately owned land but subject to the rights of commoners. The Commons Commissioners have powers only to deal with specific registration issues arising on the original registrations made between 1967 and 1970. They have no jurisdiction over registrations made since 1970.

### **Question - Is there public access to common land?**

**Answer** - The public enjoys the right of access for air and exercise to metropolitan and so called 'urban' commons under section 193 of the Law of Property Act 1925, but this does not apply to more rural commons. Where this statutory right of access does not apply automatically, the owner of a common is able to grant the same rights of access by deed if the land was subject to rights of common at the commencement of the Act. Currently only 20% of common land is subject to public rights of access and there is informal access to many other commons. In due course, the public will have a right of access on foot to all registered common land, in accordance with the provisions contained in Part I of the Countryside and Rights of Way Act 2000. However, in some areas, restrictions on the right of access may be necessary to protect the interests of land management or wildlife.

### **Question - I want to undertake works on common land or town/village green are there any procedures I should follow?**

**Answer** - Under section 194 of the Law of Property Act 1925 the erection of any building or fence, or the construction of any work, which prevents or impedes access to land which was subject to rights of common on 1 January 1926, is unlawful unless the consent of the Secretary of State is obtained.

**Question - Works are being unlawfully carried out on common land or town/village green what can be done?**

**Answer** - Section 194(2) of the Law of Property Act 1925 provides that the council of any county or district concerned, the lord of the manor or any other person with a legal interest in the land is able to make an application to the county court for the removal of work unlawfully carried out on common land or town/village green, and the restoration of the land to the condition in which it was before the work was carried out. **The section only applies to land that was subject to rights of common at the commencement of the Act.**

Under the Commons Act 1899, a common or a green may be made subject to a scheme of management in accordance with the Commons (Schemes) Regulations 1982. Where this has been done by a district council, in addition to the power to make byelaws and other provisions in the scheme, there is also a duty to maintain the land free from encroachments and to prevent any trespass.

**Question - Who keeps common land and town/village green registers?**

**Answer** - County Councils, Metropolitan Borough Councils and Unitary Authorities are charged with keeping common land and town and village green registers. These are known as the **commons registration authorities** and the registers they hold are required to be open to the public for inspection.

*In the case of Leckhampton Hill and Charlton Kings Commons the Commons Registration Authority is Gloucestershire County Council (contact details below)*

## **FURTHER INFORMATION**

### **Local Information**

Register of Commons  
Jeanette Wilson  
Corporate Services Dept  
(County Legal Services)  
Gloucestershire County Council

Tel 01452 425221

### **National Information**

Department for Environment, Food & Rural Affairs  
Countryside Division  
Common Land Branch  
Zone 105  
Temple Quay House  
2 The Square  
Temple Quay  
Bristol  
BS1 6EB.

Telephone: 0117 372 8006

Fax: 0117 372 8969

Email: [commons.villagegreens@defra.gsi.gov.uk](mailto:commons.villagegreens@defra.gsi.gov.uk)

## **APPENDIX 13**

### **SUMMARY OF PROPOSALS FOR THE REVISION OF COMMON LAND LEGISLATION**

#### **COMMON LAND: REGISTRATION ISSUES**

##### **Registration and deregistration**

- Land that was wrongly registered under the Commons Registration Act 1965 will be de-registrable (paragraph 6);
- Subject to the above and any specified exceptions properly registered land will remain so unless it is compulsorily acquired or exchanged for other acceptable land (paragraph 8);
- Subject to safeguards, provision to be made for land that was " provisionally registered but removed without justification, and land that was missed by process error to be registered anew (paragraph 10);

##### **Ownership issues:**

- All unclaimed common land to be vested in an appropriate body with a range of powers to help ensure effective management (paragraph 12);
- Provision to be made for unknown owners to come forward within a reasonable time period to re-claim such vested land (paragraph 15);
- That the period for reclaiming title should be the normal limitation period -12 years (paragraph 16);
- In the absence of conclusive evidence of title at the Land Registry the Commons Commissioners will be able to inquire into cases where disputed ownership is detrimental to effective management. For the purposes of commons legislation, where neither party produces satisfactory evidence, the Commissioners will find in favour of the claimant currently registered in the commons registers (paragraph 17);
- Bodies vested with unclaimed land will be placed under duties and responsibilities that reflect the diversity of commons and the different interests in them (paragraph 18);

##### **Improving the registers:**

- Instead of the current discretionary provisions for effecting amendments to the commons registers, mandatory requirements will be introduced so that

registration authorities are notified of all material events affecting register entries or creating the need for new entries. **This is a change from the original proposal which was to transfer registration details to the Land Registry** (paragraph 23);

- Subject to appropriate safeguards, provision will be made for clerical errors in the registers to be corrected (paragraph 25);
- Provision to be made for resolving registrations left in suspension through administrative error (paragraph 26);
- Subject to a suitable fee, access should be provided to registration authority files concerning register entries (paragraphs 27 and 28);
- The fee for official searches of the registers will be increased to better reflect current administration costs. It should not be refundable in certain circumstances and we shall look to develop a simpler mechanism for implementing appropriate regular increases (paragraph 29).

**Miscellaneous:**

- Implementation of the provisions of section 68 of the Countryside and Rights of Way Act 2000 will, in certain circumstances, provide statutory easements for vehicular access across common land (paragraph 30). **Not included in consultation paper.**
- Section 22 of the Commons Act 1899 requiring consent for inclosure of land under specific Acts will be repealed. Section 19 of the Acquisition of Land Act 1981 is the relevant current provision (paragraph 31).

**WORKS AND FENCING ON COMMON LAND:**

**Section 194:**

- The protection of section 194 of the Law of Property Act 1925 will be extended to cover all registered common land with the exception of commons subject to specific metropolitan commons legislation (paragraph 32);
- The prescribed exemptions from the consent requirement will be retained apart from works connected with the taking and working of minerals which, in future, will require consent (paragraph 33);
- We will revise the specified decision criteria for section 194 applications to more explicitly reflect current interests and policy considerations (paragraph 35);

- Powers will be introduced to enable the imposition of conditions or restrictions on a section 194 consent and the fixing of a time limit for works described in the application as 'temporary'. **New proposal** (paragraph 36);
- The section 194 consent process will be retained centrally with the Secretary of State and the National Assembly for Wales. **This is a change from the original proposal which was to transfer this function to local planning authorities.** We will consider, however, whether another central body might be better placed to undertake this function in due course (paragraph 38):
- We will consider the need and scope for an urgent section 194 procedure in certain circumstances (paragraph 39);
- In the course of reviewing the consent decision criteria, we will give further consideration to whether or not to introduce a fee for section 194 consent applications. The balance of private/public interest benefits might be a relevant factor (paragraph 41).

#### **Enforcement:**

- Local planning authorities will be empowered to issue enforcement notices in respect of works and fencing that are unlawful under section 194; and if necessary, to pursue enforcement via the magistrates' courts. Owners and those with legal interests in the land will remain eligible to pursue action via the county court (paragraph 42);
- We have decided against enabling the general public to instigate enforcement action (paragraph 43). **Not a firm proposal but the paper had invited views on this.**

#### **TOWN AND VILLAGE GREENS:**

##### **Registration issues:**

- We conclude that there is no need to enable dual registration of land as both common or green, nor for the exchange of registrations from one register to the other (paragraph 44);
- We have already improved and clarified the definition of town and village greens by means of section 98 of the Countryside and Rights of Way Act 2000 (paragraph 47);
- We will consult on draft regulations under section 98 of the CROW Act to allow a prescribed period for the lodging of an application for registration of land as a

green where use has been prevented or suitably challenged. We have a period of two years in mind (paragraph 48);

- We will also consider the scope for using the powers to make regulations in section 98 to increase openness and transparency in the application process (paragraph 49);
- Provision will be made for landowners to give notification that any further use of land for recreation has ceased to qualify for registration purposes (paragraph 50);
- Clear provision will be made for registration authorities to register parts of the land and reject others if they are satisfied on the evidence, that this is the appropriate course. **New proposal** (paragraph 52);
- Registration authorities will, subject to an appeal safeguard, be able to reject applications which on initial examination of the evidence, fall significantly short of establishing a prima facie case for registration. **New proposal** (paragraph 53);
- Similarly to common land proposals, public access should be possible to registration authority files concerning greens registrations (paragraph 57);
- We will address a legal issue on the effect of registration by ensuring that on registration of land as a green, users will acquire rights to indulge in lawful sports and pastimes (paragraph 51).

#### **Ownership and related issues:**

- Provision will be made for unknown owners to come forward and re-claim title to town and village green land vested in local authorities. As with the vesting of common land, a time limit will be imposed (paragraph 54);
- Reflecting arrangements for greens registered before 1970, and subject to the reclamation of title safeguard above, provision will be made for greens registered after 1970 with no known owner to be vested in local authorities. **New proposal** (paragraph 54);
- Similarly to our proposals for commons, in addition to the compulsory acquisition of land or where land is exchanged, provision will be made for land wrongly registered as town or village green to be de-registered. (paragraph 55);
- Local authorities will be eligible to de-register wrongly registered green land in the same way as other landowners. **This is an amended proposal as**

**originally it was suggested that local authority owned wrongly registered greens should be excluded** (paragraph 56);

- Provision will be made for landowners to voluntarily register land as town or village green (paragraph 59);
- Subject to appropriate controls, provision will be made for landowners to give consent for temporary vehicle parking on town and village greens (paragraph 67).

**Protection and enforcement:**

- We will clarify in legislation that the protection of section 12 of the Inclosure Act 1857 and section 29 of the Commons Act 1876 will apply to all registered town and village greens (paragraph 60);
- Similarly to section 194 enforcement, local planning authorities will be able to issue enforcement notices in respect of sections 12 and 29 as a preliminary step before proceeding to prosecution in the courts (paragraph 61);
- Subject to safeguards, provision will be made to create strictly limited scope for establishing facilities on greens that would add comfort or convenience for users (paragraph 63);
- The protection of section 194 of the Law of Property Act 1925 will be extended to all registered town and village greens on a qualified basis. Consent will be required in all cases where rights of common remain registered over the green. If there are no registered commoners consent will not be required for proposed works that are permissible under sections 12 and 29. Consent will be required in all cases of proposals concerning facilities to add comfort and convenience whether there are registered commoners or not (paragraph 65).

**Vehicular access ways and greens:**

- Section 68 of the Countryside and Rights of Way Act 2000 enables the acquisition of easements in certain circumstances and we will ensure that in those circumstances, an exemption from the effects of sections 12 and 29 will apply (paragraph 69). **Not included in the consultation paper;**
- Unless it is in the interests of the green's users and the Secretary of State or National Assembly for Wales has given consent, we will reinforce the existing position that new vehicular access ways should not be created over land that remains registered as a town or village green (paragraph 70);

- In respect of existing access ways that do not qualify for an easement under section 68, no easement granted by the landowner will be lawful without the consent of the Secretary of State or National Assembly for Wales (paragraph 71);
- Consent from the Secretary of State or National Assembly for Wales will be required for any improvement to existing access ways and there will be provision to impose conditions (paragraph 72).

## **AGRICULTURAL USE AND MANAGEMENT:**

### **Management by Commons Associations:**

- We will develop statutory provisions to enable commons management associations to operate more effectively (paragraph 81);
- The initiative should come from the commoners and other graziers and the acquisition of statutory powers will involve an approval process (paragraph 83);
- Applicant management associations will be expected to meet specified criteria (paragraph 84); .A range of measures for managing grazing practices and the exercise of rights of common for pasture might be made available to statutory commons management associations (paragraph 86);
- Subject to further consideration, statutory management associations might be empowered to erect temporary fencing without requiring section 194 consent (paragraph 87); 8
- Different circumstances might enable a vote per member on resolutions or require the election of an executive committee (paragraph 88);
- The associations should have facility to co-opt other interests (paragraph 89);
- County Councils and National Park Authorities will be encouraged to establish broad-based management/advisory bodies that might be charged with producing overall management plans, exercising certain functions and providing advice to the commons associations (paragraphs 90-92).
- We propose to establish a working group involving stakeholders to elaborate on the proposals above and to consider other options (paragraph 93).

### **GRAZING RIGHTS AND RELATED ISSUES:**

- We do not propose to pursue the idea of broad fixed grazing intensity limits but will ask the working group to consider whether use on a common by common basis has merit as a last resort option if necessary (paragraphs 94 and 95);

- We do not propose to undertake a wholesale review of registered rights but will enable individual commoners or associations to refer cases of wrongly registered rights to the Commons Commissioners for investigation (paragraphs 96 to 98):
- We will prohibit the severance of rights from the holdings to which they attach and the grant of new rights in gross but will consider making an exception for public or other approved bodies to acquire rights in order to reduce grazing pressures (paragraph 99);
- Management associations will have power to control the activation by lease or loan of rights that might otherwise have been severed (paragraph 100);
- With a view to improving the accuracy of the registers, the working group will be asked to put forward practical suggestions for updating the registers in respect of rights that may have been abandoned, forgotten or can no longer be used (paragraphs 102 to 104);
- We are also minded to make provision for owners of unwanted rights of common to voluntarily surrender them for extinguishment (paragraph 105).

**OTHER ISSUES:**

- In the light of existing cross-compliance measures and proposals for statutorily empowered management associations. We do not propose any other specific measures for management of supplementary feeding practices (paragraphs 106 to 108);
- New Environmental Impact Assessment regulations will provide a safeguard against significant agricultural changes on uncultivated or semi-natural land. We do not therefore propose any additional measures for commons out of this review (paragraph 109);
- The requirement for Secretary of State/National Assembly for Wales approval for resolutions on the turning out of entire animals on commons will be removed where a statutory management association is regulating such practices and transferred to the registration authorities where there is no statutory association (paragraphs 110 and 111).

**APPENDIX 14.**

**EXPLANATION OF RISK ASSESSMENTS**

<b>Term</b>	<b>Description</b>
<b>Nature of Hazard:</b>	Activity or Location giving rise to a potential Hazard
<b>Equipment:</b>	Any equipment used that is potentially Hazardous
<b>Hazard Class:</b>	
A	Risk of Death, Serious Injury, or Damage – Likelihood or Potential Severity High
B	Risk of Injury, or Damage – Likelihood High or Medium, but Potential Severity only Medium or lower
C	Risk of Minor Injury, or Damage – Likelihood Low and Potential Severity also Low
<b>Likelihood</b>	
High	Potentially High Risk unless precautions are taken
Medium	Potential Risk unless precautions are taken
Low	Low or Negligible Risk
<b>Potential Severity</b>	
High	Risk of Death or Serious Injury, or major property damage
Medium	Risk of Injury requiring more than minor First Aid, or significant property damage
Low	Risk of minor injuries & localised damage only
<b>Risk to Whom:</b>	Persons & property potentially at Risk if precautions are not taken
<b>Liability:</b>	Whether or not the organisation has any potential liability for injury or damage to third parties, or volunteers
<b>Description:</b>	Description of Potential Hazard(s)
<b>Controls</b>	
Elimination of Risk:	Where possible Hazards should be Eliminated
Substitution for Hazard:	Where Hazards cannot be eliminated, substitution of less risky alternatives may be preferable
Isolation:	Where Hazards cannot be eliminated or substituted, the Hazard should be Isolated if possible

<b>Term</b>	<b>Description</b>
Technical Controls:	Where Hazards cannot be eliminated, substituted or isolated, technical controls may be used to reduce the risk
Administrative Controls:	Where Hazards cannot be eliminated, substituted, isolated, or controlled technically, procedures need to be followed to minimise the risks
PPE:	Where Hazards cannot be eliminated, substituted, isolated, or controlled technically, irrespective of any administrative procedures adopted to minimise risks, appropriate Personal Protective Equipment should be worn by anyone exposed to any risk
<b>Responsibility:</b>	The organisation, or individual(s) with primary responsibility for minimising risks

## APPENDIX15. AONB GRASSLAND CONDITION REPORT AND COSTS OF IMPLEMENTING GRAZING MANAGEMENT

Leckhampton Hill & Charlton Kings Common (SO952187)

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### GENERAL

Area: 62.9ha  
Status: SSSI/SNCI, RCo  
Archaeology: SAM Leckhampton Camp  
Ownership: Cheltenham Borough Council

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### COTSWOLDS GRASSLAND INVENTORY (1991/2)

Site code: SO91/02  
Grassland type: CG  
Area unimproved grassland: 41.3ha

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### VEGETATION

Extent of Scrub: 30%  
Sward height: On top ranges from 5cm to 60cm, s.lopes 25cm

This is a good unimproved calcareous grassland site with *Brachypodium pinnatum* and *Bromopsis erecta*. Locally on top there is more *Arrhenatherum elatius* mixed with the *Bromopsis* and *Brachypodium*. On top the sward ranges between very short with herbs to areas of very long tussocky grass where herbs struggle to compete. The sward is up to 25cm on the slopes and generally quite herb-rich being herb-poor only locally. It is a good unimproved calcareous grassland site quite rich in calcicoles, in need of some management.

On the flat top there are dense patches of gorse, bramble and scrub woodland. There is scattered scrub on the steeper slopes mainly scattered hawthorn, gorse and scrub woodland. On the slopes of Charlton Kings common there is 15% gorse cover.

Species include: *Helianthemum nummularium*, *Sanguisorba minor*, *Carex flacca*, thistle spp., *Galium sp.*

Negative indicator species (including thistles, docks, nettles): *Cirsium arvense* and *Rubus fruticosus* in large patch on top.

### BARRIERS TO FAVOURABLE CONDITION

Litter: No  
Negative indicator species: Yes locally  
Scrub: Yes  
Coarse grasses: Yes  
Poaching: No  
Supplementary feeding: No  
Nutrient enrichment: No  
Heavily grazed: No

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## MANAGEMENT

Water supply: No  
Boundaries: Most of site unfenced

There has been mowing on top to control the bramble and thistle. The patches of short sward on top are due to rabbits and human trampling. The rest of the site appears to be unmanaged. The slopes and tussocky areas on top would benefit from an appropriate grazing regime. Only some sections of the site are fenced, this is mainly along the southern edge of the site.

## ACCESS

Open Access: Yes                      Public Right of Way: Yes                      Visual Access: Yes

## OTHER RELEVANT INFORMATION

- Quarries and bare rock make up about 5% of the site.
- There is opposition amongst site users to having any fencing on the site especially amongst horse riders.

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## RECOMMENDATIONS FOR ACTION:

### Year 1

- Officer time will be required to gain Commons Consent prior to introduction of grazing
- In order to improve the grazing quality of the grassland it is recommended to remove the encroaching scrub gradually over 5 years reducing the overall level from 30% to 10%. Scrub removal is required on the top in the dense patches, on the NE facing slopes of Charlton Kings where there is 15% gorse cover and the remainder of the slopes where there is approximate 25% scrub cover. The steepness of the slopes necessitates scrub removal by hand.
- Flail mowing can be used on top to control the scrub but this is only appropriate if grazing or other follow-up management is to be introduced. Recommend hand-strimming of 3ha rank sward on top on eastern end of site every 2 years.
- It is recommended to focus the Year 1 work on managing the scrub on the slopes particularly the gorse on the NE slopes of Charlton Kings (20ha area). The aim is to reduce the gorse cover by 50% over 2 years (removal of 1.5ha gorse) and the remaining slope scrub cover from 25%-10% (removal of 3ha). It is recommended to introduce a flying herd in year 2.
- Install a bowser-fed trough. Bowser at Crickley Hill can be used to service trough.
- It is optional to cut grassland prior to introducing grazing. However, the steepness of the slope would necessitate hand strimming this has been costed as an option. However, Banded-Galloway cattle will graze rank sward if fenced onto site.
- Introduce a flying-herd contained by electric fencing to slopes of Charlton Kings.

### Years 2-5

Continue scrub management and hand strimming if grassland if decide to take up that option.

## COST

### YEAR 1

Manual (gorse) scrub clearance 0.5ha	0.2ha/day = 3 days x £300	= £900
Manual scrub clearance 0.6ha	0.2ha/day = 3 days x £300	= £900
Stump treatment 1ha	1ha/day = 1 day x £250	= £250

### Year 1

**Total =£2050**

### *Optional*

<i>Hand strim 5 ha grassland</i>	<i>0.2 ha / day = 25 days x £300</i>	<i>= £7500</i>
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### YEAR 2

Install bowser-fed trough	1 x £70	= £70
Manual (gorse) scrub clearance 0.5ha	0.2ha/day = 3 days x £300	= £900
Manual scrub clearance 0.6ha	0.2ha/day = 3 days x £300	= £900
Stump treatment 1ha	1ha/day = 1 day x £250	= £250

### *Optional*

<i>Hand strim 5 ha grassland</i>	<i>0.2 ha / day = 25 days x £300</i>	<i>= £7500</i>
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### YEAR 3

Manual (gorse) scrub clearance 0.5ha	0.2ha/day = 3 days x £300	= £900
Manual scrub clearance 0.6ha	0.2ha/day = 3 days x £300	= £900
Stump treatment 1ha	1ha/day = 1 day x £250	= £250

### *Optional*

<i>Hand strim 5 ha grassland</i>	<i>0.2 ha / day = 25 days x £300</i>	<i>= £7500</i>
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### YEAR 4

Manual scrub clearance 0.6ha	0.2ha/day = 3 days x £300	= £900
Stump treatment 1ha	1ha/day = 1 day x £250	= £250

### *Optional*

<i>Hand strim 5 ha grassland</i>	<i>0.2 ha / day = 25 days x £300</i>	<i>= £7500</i>
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### YEAR 5

Manual scrub clearance 0.6ha	0.2ha/day = 3 days x £300	= £900
Stump treatment 1ha	1ha/day = 1 day x £250	= £250

### Years 1-5

**Total =£8520 (not including optionals)**

**APPENDIX 16.  
LOWLAND GRASSLAND SSSI CONDITION ASSESSMENT (VERSION 10/10/00)**



Site Name: .....

NVC type: **CG3, 4, 5**

Unit/subdivision reference ..... Date.....

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

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

Key management activities affecting condition to discuss with manager:

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

<b>Attribute (*= mandatory attribute. One failure among Mandatory attributes = unfavourable condition)</b>	<b>Target</b>	<b>Estimate for attribute</b>
*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 (ie non-Graminae) ratio	<b>40-90%</b> herbs	
*Sward composition: frequency of positive indicator species/taxa.  <i>Brachypodium pinnatum</i> ( ), <i>Bromopsis erecta</i> ( ). <i>Anthyllis vulneraria</i> ( ), <i>Asperula cynanchica</i> ( ), <i>Campanula glomerata</i> ( ), <i>Cirsium acaule</i> ( ), <i>Filipendula vulgaris</i> ( ), <i>Galium verum</i> ( ), <i>Gentianella</i> spp. ( ) <i>Helianthemum nummularium</i> ( ), <i>Hippocrepis comosa</i> ( ), <i>Leontodon hispidus</i> /L. <i>saxatilis</i> ( ), <i>Leucanthemum vulgare</i> ( ), <i>Linum catharticum</i> ( ), <i>Lotus corniculatus</i> ( ), <i>Pilosella officinarum</i> (= <i>Hieracium pilosella</i> ) ( ), <i>Plantago media</i> ( ), <i>Polygala</i> spp. ( ), <i>Primula veris</i> ( ), <i>Sanguisorba minor</i> ( ), <i>Scabiosa columbaria</i> ( ), <i>Succisa pratensis</i> ( ), <i>Thymus</i> spp. ( ).	<b><i>Bromopsis erecta</i></b> (if <b>CG3</b> ) or <b><i>Brachypodium pinnatum</i></b> (if <b>CG4</b> ), or both (if <b>CG5</b> ) <b>frequent</b> plus at least <b>two</b> species/taxa <b>frequent</b> and <b>four</b> <b>occasional</b> throughout the sward	
*Sward composition: <b>CG3 only</b> , cover of <i>Brachypodium pinnatum</i> .	No more than <b>10%</b> cover	



## **APPENDIX 17.**

### **JOINT NATURE CONSERVANCY COUNCIL (JNCC) MINERAL AND FOSSIL COLLECTION GOOD PRACTICE GUIDANCE**

1. Obtain permission before collecting on private land, and respect the owner's wishes.
2. Wear appropriate clothing and footwear. A helmet is essential if collecting near cliffs or quarry faces and protective goggles if a chisel or hammer is used. Avoid collecting in dangerous situations. If collecting at the coast, consider tide times prior to the visit. Leave details of the collecting site, and expected time of return, with a responsible person.
3. Take only a few representative specimens and collect only from fallen blocks or loose stones -- indiscriminate collecting will diminish the resource for future visitors.
4. If removing a specimen from a rock face, make a careful note of its exact position in relation to surrounding rock; a photograph provides a useful reference. Label the specimen, giving details of where and when it was collected.
5. If possible, remove a fossil complete with some of the surrounding rock, and protect it in paper or cloth for safe transport.
6. Large fossils can be a problem for the individual collectors and could be left for others to see; otherwise seek advice from a local museum. Special equipment and lots of time may be required to excavate large specimens properly.
7. Mineral collecting from old mines poses special problems -- such as effects of stability of the old working or gas build up. Old workings should only be entered with an organised group with experienced leaders. However, mine dumps can be visited with permission.

## APPENDIX 18

### BRITISH HORSE SOCIETY CODE FOR RIDING AND DRIVING RESPONSIBLY

1. **Riders and carriage drivers** everywhere should proceed with courtesy, care and consideration.

#### **Care for the Land:**

- Do not stray off the line of the path;
- Do not damage timber or hedgerows by jumping;
- Remember that horses' hooves can damage surfaces in wet weather;
- Pay particular attention to protected areas that have significant historical and/or biological value, as they can be extremely sensitive to damage.

#### **Courtesy to other users:**

- Remember that walkers, cyclists and other riders may be elderly, disabled, children or simply frightened of horses; whenever possible acknowledge courtesy shown by other users and especially by drivers of motor vehicles.

#### **Consideration for the farmer:**

- Shut the gate behind you;
- Ride slowly past all stock;
- Do not ride on cultivated land unless the right of way crosses it;
- Dogs are seldom welcome on farmland or moorland unless on a lead or under close control.

2. **Observe local byelaws.**

These are usually on display as you enter the site.

3. **Ride or drive with care on the roads** and take the BHS Riding and Road Safety Test. Always make sure that you can be seen at night or in bad visibility, by wearing the right kind of reflective/or fluorescent aids.

4. **Groups from riding establishments** should contain reasonable numbers, for reasons of both safety and amenity. They should never exceed twenty in total **including** the relevant number of escorts as indicated in BHS guidelines on levels of capability among riders in groups, available on request. Riders should not deviate from the right of way or permitted route and regard must be shown at all times for growing crops, shutting and securing of gates and the consideration and courtesy due to others.
5. **Always obey the Country Code:**
- Enjoy the countryside and respect its life and work
  - Guard against all risk of fire
  - Fasten all gates
  - Keep your dogs under close control
  - Keep to public paths across farmland
  - Use gates and stiles to cross fences, hedges and walls
  - Leave livestock, crops and machinery alone
  - Take your litter home
  - Help keep all water clean
  - Protect wildlife, plants and trees
  - Take special care on country roads
  - Make no unnecessary noise

***British Horse Society February 1993, revised 1999***

## **APPENDIX 19**

### **“OFF-ROAD CODE” FOR MOUNTAIN BIKERS**

1. Only ride where you know you have a legal right to do so
2. Always yield to horses and walkers.
3. Avoid animals and crops. In some cases this may not be possible if this is the case keep contact to a minimum.
4. Take all litter home with you.
5. Leave all gates as you find them.
6. Don't get annoyed with anyone, it never solves any problems.
7. Always try to be self sufficient, for you and your bike.
8. Never create a fire hazard.
9. Another thing to be aware of when going off-road is to avoid any confrontation with walkers and horse riders on bridleways.
10. Cyclists must give way to these two groups of people at all times.
11. In the past a minority of off-road cyclists who are not aware of the rules have managed to give genuine mountain bikers a bad name by arguing with horse riders and walkers.
12. By being friendly and considerate to these two groups of people you will help repair relationships and make life easier for mountain bikers