Wisley & Ockham Commons

Management Plan

2010 – 2020

Contents

EXECUTIVE SUMMARY 4

1: VISION STATEMENT 6

2: POLICY STATEMENTS 7

3: DESCRIPTION

3.1: General Information 7
3.1.1: Location & site boundaries
3.1.2: Tenure
3.1.3: Management/organisational infrastructure
3.1.4: Site infrastructure
3.1.5: Map coverage
3.1.6: Photographic coverage
3.1.7: Zones or compartments

3.2: Environmental information 12
3.2.1: Physical
3.2.2: Biological
3.2.2.1: Habitats/communities
3.2.2.2: Flora
3.2.2.3: Fauna

3.2.3: Cultural

3.2.3.1: Archaeology
3.2.3.2: Past land use
3.2.3.3: Present land use
3.2.3.4: Past management for nature conservation
3.2.3.5: Past status of the site
3.2.3.6: Present legal status of the site

3.3: Current public use & interest 22
3.3.1: Public interest/relationship with local communities
3.3.2: Access & tourism
3.3.3: Current interpretation provisions
3.3.4: Current educational use
3.3.5: Current research use & facilities

3.4: Landscape 26

3.5: Bibliography 27

4: FEATURES OF INTEREST **28**
4.1: Identification/confirmation of nature conservation features
4.1.1: List of recognised conservation features
4.1.2: Provisional list of additional conservation features
4.1.3: Evaluation of additional conservation features
4.1.4: Confirmed list of the conservation features

5: SERVICES, FACILITIES, OBLIGATIONS ETC. **32**
5.1: Identification/confirmation of other focus points of plan

FEATURES

FEATURE 1 Heathland 33
FEATURE 2 Woodland 38
FEATURE 3 Grassland 41
FEATURE 4 Open Water 43
FEATURE 5 Archaeology 47
FEATURE 6 Access Interpretation and Recreation 49
FEATURE 7 Funding 52
FEATURE 8 Legal and other obligations 53

Monitor and Review 55

MAPS

WORK PROGRAMME

APPENDICES

Wisley & Ockham Commons

Executive Summary

Ockham & Wisley Commons together with Chatley Heath total nearly 300ha. The site is located south of Cobham, around the M25 - A3 intersection in central Surrey and is owned by Surrey County Council (SCC).

The site has been leased to and managed since 2002 by Surrey Wildlife Trust (SWT) as part of a 50-year contract with SCC for the management of its Countryside Estate.

The ecological significance of Ockham & Wisley Commons is reflected by their designation as a Site of Special Scientific Interest. The site also forms part of the Thames Basin Heaths Special Protection Area (SPA) under the EC Birds Directive; is a Local Nature Reserve (LNR); designated Greenbelt; and Registered Common Land.

The mosaic of habitats includes a range of wet and dry heath communities, mires, acid grassland, wet and dry woodlands, scrub and open water with many rare and important species supported by these habitats.

As Registered Common Land the commons are subject to rights of access on foot and on horseback under Section 193 of the Law of Property Act 1925. The site is popular with the visiting public and a number of rights of way and car parks are managed and maintained.

The key management objectives are

- Conservation of the semi-natural habitat
- Provision of informal public access and recreation
- Protection of archaeological features and historic buildings.

The management plan is built around the following key features:

- Heathland
- Woodland
- Grassland
- Open Water
- Archaeology
- Access Interpretation and Recreation
- Funding
- Legal and other obligations.

Management of the **heathland** feature includes:

- Control of bracken and other invasive species
- Clearance of scrub to restore the extent and quality of habitat
- Creation and maintenance of fire breaks and areas of bare ground
- Maintenance of scrapes and pools

On Wisley Common grazing by cattle helps maintain habitat diversity. A scheme to manipulate the hydrology on part of Wisley Common to return areas to wet heath is proposed, subject to further discussion and consent.

Whilst removal of some secondary woodland will be a feature of heathland restoration other **woodland** will be managed by:

- Coppicing
- Maintenance of glades
- Retention of significant landscape trees

(Non SSSI) **grassland** areas will be maintained and enhanced through cutting and aftermath grazing.

Open water components of the site will be managed to maintain and enhance aquatic and marginal habitat with surrounding vegetation managed as necessary.

Habitat and species monitoring is a key aspect of the nature conservation management of the commons and is subject to a strategy of its own. This is attached at Appendix 9.

Archaeological features, which includes four Scheduled Ancient Monuments, will be monitored and funds sought to restore the Samuelson mausoleum.

The site will continue to be managed for **access and recreation** according to standards agreed with the landowner, Surrey County Council. Interpretation provision will include seasonal ranger notes, guided walks and talks.

Much of the work detailed in the plan will be supported by funding from outside bodies and additional funding will be pursued to achieve greatest gains for both people and wildlife.

1: VISION STATEMENT

Vision

Successful implementation of this management plan will see extent of the heathland habitat similar to that the late 1960's. Although the connectivity of habitat across Wisley and Ockham Commons has been lost through fragmentation by the A3 and the M25, maintenance of restored areas will maintain the heathland habitats close to both sides of the A3.

An idealised vision remains that, following the example of Dutch highway planning and ecological management, a wide "land bridge" could be constructed across the A3. This would allow species with poor dispersal abilities, large grazing animals and human visitors to pass safely across the 6 lane dual carriageway trunk road.

For visitors to the site the network of paths and interpretation of features will provide a satisfying and rewarding experience whilst ensuring a mosaic of habitats suitable for a variety of species remains undisturbed.

The period of the plan will see

- The removal of all aggressive alien species from the site
- The recreation of the nationally important wetland habitats of Wisley and Boldermere
- The return of traditional management practises such as controlled burning and extensive grazing across the site.

Beyond the current grant supported habitat restoration works SWT will work with Surrey County Council, Natural England (NE), the local community and businesses to ensure the high ecological value of the site is sustained and enhanced.

2: POLICY STATEMENTS

Surrey Wildlife Trust's site management practice is guided by a set of Policy and Practice Notes which are attached at Appendix 2 and available from SWT HQ at Pirbright. These continue to be updated and expanded.

3: DESCRIPTION

3.1: General Information

- Site of Special Scientific Interest.
- Part of Thames Basin Heaths Special Protection Area (SPA)
- Local Nature Reserve (LNR),
- Metropolitan Greenbelt
- Registered Common Land

3.1.1: Location & site boundaries

Grid Ref: TQ 080 590 (Central Grid Reference)

Ockham & Wisley Commons are located south of Cobham, around the M25 (Junction 10) -A3 intersection in central Surrey.

A site boundary map with central grid reference is attached as Figure 1.

3.1.2: Tenure

The management plan is not a legal document. Reference to the title deeds and tenure documents must be made before taking any decision or action which may have legal implications. These documents are held by Surrey County Council. However a summary is given below.

Wisley Commons, Ockham and Chatley Heaths, Pond Farm and the Semaphore Tower are freehold owned by Surrey County Council

Surrey County Council
County Hall
Penrhyn Road
Kingston-upon-Thames
KT1 2DT

and leased to Surrey Wildlife Trust under a 50 year lease expiring on 1st March 2052.

Local Authority: The site mainly falls within Guildford Borough Council's area, apart from Chatley Heath and Pointers Road, which are within Elmbridge.

Type of holding: Freehold

Size of Holding: 336 hectares (830 acres)

SCC Acquisition details:

1936	141.64 hectares (350 acres) of Ockham Common and part of Wisley Common
1959	128.69 hectares (318 acres) Wisley Common (gift from Sir Cyril Black)
1965	28.33 hectares (70 acres) Chatley Heath & Semaphore Tower
1986	Approximately 67 hectares (166 acres) of land; part of Snakes Field, all of Hatchford Woods, the Hut Hill Hotel site and an area of Wisley North, will be transferred into the ownership of SCC as exchange land for that taken by the M25. The land is managed as part of the site, although deeds of transfer are still to be exchanged.

3.1.3: Management/organisational infrastructure

Manager: Surrey Wildlife Trust
School Lane
Pirbright
Woking
Surrey
GU24 0JN

Ockham & Wisley Commons and Chatley Heath are part of Surrey County Council's approximately 4047 hectare (10,000 acre) Countryside Estate. This is managed under contract by Surrey Wildlife Trust for the County Council.

Day-to-day management of the Countryside Estate is the responsibility of the Surrey Wildlife Trust Director of Countryside Management, who is assisted at Ockham & Wisley Commons by an Area Countryside Manager, a Countryside Ranger and by a team who carry out estate management work. An organisational chart of SWT is attached at Appendix 1.

This management plan sets out the management objectives and work programmes for Ockham & Wisley Commons that will be implemented by these staff for the period 2010 - 2020. The management plan will be reviewed in its entirety in 2019.

The SCC Countryside Estate is held by Surrey County Council for two main reasons:-

- Provision of informal public access and recreation
- Conservation of the semi-natural habitat and landscape

Underpinning these aims is the need to achieve a proper balance between high conservation status of the site (see Section 3.2.3.6) and legal rights of access.

In addition to the two main aims a number of other management objectives have been identified including:

- Promotion of environmental awareness, educational and arts use.
- Protection of archaeological features and historic buildings.
- Encouragement of active voluntary involvement.
- Consultation and research to obtain the views and attitudes of site users and interested groups
- Promotion of sustainable long term management

To help achieve these aims there is a set of SCC bylaws. These are attached at Appendix 3.

3.1.4: Site infrastructure

A map of services on site is attached at Figure 2.

Chatley Heath Semaphore Tower

Built in 1822, the Tower (TQ 089 585) was part of a line of semaphore stations between the Admiralty in London and the naval base in Portsmouth. Fully restored by Surrey County Council in 1989 it is now the only surviving operational Semaphore Tower of the line. Up to mid-2008 the Tower was open to the public at weekends and bank holidays for a six month period over the summer. Admission was charged to visit the Tower itself but free entrance was granted to the ground floor countryside centre. The Tower offers extensive views of the surrounding countryside, interactive displays, souvenirs and countryside information and leaflets. Due to falling visitor numbers the tower is presently open by appointment and on pre-arranged heritage open days through the year. Visitors follow self-guided trails from the car parks. A link path is provided to create a circular walk. Picnic benches are set out in the Tower Garden.

There is a single bedroom flat spread over two floors. This is privately leased.

Hatchford Woods Mausoleum

Built in 1920, the mausoleum (TQ 089 582) is the resting place of Sir Bernard Samuelson (Baronet, Ironmaster and MP), his wife Caroline, and daughter Florence. The Samuelson Mausoleum is one of fewer than a dozen examples of Edwardian mausoleums left in the UK.

Pond Farm

A 15 hectare small holding (TQ 075 592) encompassing a two bedroom farmhouse, a Tithe Barn and outbuildings. The farm is now the headquarters of the Surrey Wildlife Trust grazing project.

Hut Hill Cottage

A two bedroom 1886 farmhouse. It is set in 0.4 hectares (1 acre) of gardens. It is privately leased.

Birchmere Camp Site

This field (TQ 073 593) with a dining room and toilet facilities is leased to the Woking Scouts. It is used nearly every weekend in the summer months.

Car Parks

There are three car parks all of which have SWT/SCC notice boards and visitor information:

1. Boldermere Car Park (TQ 078 586) is accessed from Old Lane close to its junction with the A3 slip road. It has an asphalt surface. It can hold around 100 cars and has a café, “Ockham Bites”; a countryside room and toilet facilities (male, female and disabled). It is not height-restricted. It has separate entry and exit gates.

2. Pond Car Park (TQ 080 583) is 150 metres further down Old Lane. It has a loose stone finish. It is able to hold 50 cars and has no facilities. It has a height barrier preventing access to vehicles over 2m high. It has a single access point.

3. Wren’s Nest Car Park (TQ 065 587) is 400m north of the A3 along Wisley Lane. It has a loose stone finish. It holds 10 cars and has no facilities. It has a height barrier preventing access to vehicles over 2m high. It has a single access point.

Countryside Room

This room, attached to Ockham Bites café, has a large mural on two of the walls depicting wildlife associated with the site. It also has a display of leaflets from other visitor attractions in the area, which is maintained by the café manager.

Boldermere

Boldermere is a 6.5 hectares (16 acres) lake, which is classified as a large raised reservoir underthe Reservoirs Act 1975. This means that the embankments aremonitored annually by a supervising engineer with a formal inspection once every 10 years. (Last inspection was in December 2006). The ranger is required to take monthly readings of the flow over the sluice and record them in a logbook.

SWT’s main responsibilities are

- ensuring the sluice does not become blocked
- ensuring the secondary sluice remains clear of vegetation
- regularly inspecting the retaining embankment for leakage.

Surfaced Tracks within SWT Responsibility

1. Pointers Road to Semaphore Tower. 250 metres of asphalt from the southern end of the M25 bridge (TQ 092 585) leading up Telegraph Hill to the Tower. Used by SWT staff, residents of Tower flat and occasional visitor groups.

2. A3 access point to Clearmount. 300 metres of asphalt from TQ 079 591 to TQ 077 588. Then 1 kilometre of surfaced track. Used by SWT staff, residents in Hut Hill Cottage, Pond Farm, Park Barn Farm, visitors to Birchmere Scout Camp and Royal Mail.

Bridges

1. Tower bridge (TQ 092 585). Owned by the Highways Agency and managed by Mouchel Parkman. Access for fire engines, tractors and small vehicles. Mounting blocks for horseriders at both ends.

2. A3 bridge (TQ 079 588). Owned by the Highways Agency and managed by Mouchel Parkman. Access for tractors and small vehicles only. Mounting blocks for horseriders at both ends.

3. Wisley North bridge (TQ 074 595). Owned by the Highways Agency and managed by Mouchel Parkman. Adequate for normal construction and use by regulation vehicles up to 30 tonnes gross weight. Mounting blocks for horseriders at both ends.

3.1.5: Map coverage

Ordnance Survey Explorer Series 145 1:25000

3.1.6: Photographic coverage

There are aerial photographs covering Ockham & Wisley Commons in the years 1948 ,1971, 1988, 1999 and 2005.

In addition there is a photographic record of site management between 1991 and 2007.

3.1.7: Zones or compartments

Compartments have been revised from 2009 to reflect NE SSSI units and are attached at Figure 3.

3.2: Environmental information

3.2.1: Physical

Climate

The climate is typical of central southern England, moist and temperate with mild winters. Prevailing winds are from the south west. Rainfall ranges between 550 millimetres and 650 millimetres per day/week/month/year. Normal average temperatures are 17°C in July and 5°C in January. Sunshine

levels are amongst the highest in Britain, while the number of snow days is relatively low. However, during the decade 1995-2005 there has been a shift in weather patterns. Overall rainfall averages have stayed within low annual averages but summers have become drier. Winters have on average been milder.

Hydrology

Drainage on the site runs broadly east to west on Ockham and east to north-west on Wisley. Rain falling within the Wisley Airfield, Ockham and Chatley Heath catchment drains into Boldermere. The outfall from the lake passes under the A3 and into Teal Pond. From the Teal Pond the water moves through the wet heath via a man made ditch system.

There are strong concerns that the site is drying out due to climate patterns, forestry plantations, bracken dominance and artificial drainage (both on-site and associated with the major roads).

Geology

The Commons form part of a chain of heaths extending from Esher (Oxshott Heath) westwards, including Horsell, Chobham and Bisley on the tertiary sands of the London Basin. The overlying deposits are Bagshot Sands, with areas of river gravel and Bracklesham Beds on Wisley Common. These heaths are therefore geologically distinct from the Greensand heaths of southwest Surrey. Lenses of clay occur sporadically across the Commons reflecting the underlying London Clay.

The local relief is gently undulating, although Hut Hill at 40 metres (TQ 076 587), Telegraph Hill at 55 metres (TQ 089 585) and Red Hill at 47 metres (TQ 085 597)

Soils

On Ockham Heath dry podzols dominate with typical leached grey sandy and gravelly soils found throughout the site. Podzolisation has produced iron pans in the lower soil horizon.

Gleyed podzols occur on Wisley and, especially in winter, the water table is at or near the ground surface. Detailed soil profile tests have been carried out and the site ranger holds the relevant records.

3.2.2: Biological

3.2.2.1: Habitats/communities

A full National Vegetation Classification (NVC) scheme survey was carried out by Dr. Giles Groome of Ecological Planning & Research (EPR) in September 2004. The report was commissioned by English Nature and the survey was

based on their management compartments. A summary map of the NVC survey is attached at Figure 4.

3.2.2.2: Flora

Wisley

As already described, Wisley is lower lying and wetter than Ockham. It has consequently developed a diverse flora by the 1940/50s, but diversity declined significantly in the decades which followed. This assemblage is now slowly recovering due to active habitat management including scrub control, large scale heathland restoration, reintroduction of grazing and modifications to the drainage system.

Wisley is home to some true Surrey rarities. For instance the largest, and now possibly only, Surrey colony of Bog Hair grass (*Deschampsia setacea*) occurs near Teal Pond. Interesting ferns and mosses are recovering especially well as recent recordings of young Royal Fern (*Osmunda regalis*) plants show. Large-celled Flapwort (*Lophozia capitata*), a Liverwort species, has also appeared and this 2006 finding is the first county record of this nationally rare species since 1970. Hart's Tongue Fern (*Asplenium scolopendrium*) was discovered on the Boldermere to Teal Pond stream in 2006 - an unusual recording on a heathland site.

Much of the interesting flora on Wisley is associated with the high water table. As mentioned under "3.2.1. Hydrology" there are signs that the water table is lower than was previously the case. Records show the enormous botanical interest in units 5 and 6. (Further colonies of Bog Hair Grass, Meadow Thistle (*Cirsium dissectum*), Marsh Speedwell (*Veronica scutellata*), and others all existed in this area). It is felt that this interest has disappeared mainly due to the introduction of artificial drainage associated with forestry planting and succession, both of which will be addressed under this plan. There may be potential to repair or reduce damage to drainage patterns caused by the major roads.

Large colonies of Lesser Skullcap (*Scutellaria minor*) and Climbing Corydalis (*Ceratocapnos claviculata*) have appeared in previously unrecorded locations following the large scale forestry operations beginning in 2006. This unforeseen recovery gives an indication that other species may recover well following further heathland restoration and works to repair damage done by artificial drainage.

Winter grazing and better control of water tables across Pond Farm has seen population booms of Ragged Robin (*Lychnis flos-cuculi*), Cuckoo Flower (*Cardamine pratensis*), Marsh Woundwort (*Stachys palustris*) and Common Spotted Orchids (*Dactylorhiza fuchsii*). The linkage of this habitat to the open heath via forestry operations has opened further habitat niches and flight paths.

Wisley North has lines of ancient pollard Oaks marking Parish boundaries and has a large population of English Bluebells (*Hyacinthoides non-scriptus*).

Ockham

Ockham is more elevated and sandier than Wisley and consequently is considerably drier. It is home to substantial dry heath areas and is therefore botanically relatively species poor. However there are two floristic hotspots around Boldermere and Puck's Pond where human influence has created wetter flushes and sediments have accumulated.

The fringes of Boldermere are particularly significant for marginal aquatic plants, including several Surrey rarities, such as Shoreweed (*Littorella uniflora*), Marsh St. John's Wort (*Hypericum eloides*), Lesser Water-plantain (*Baldellia ranunculoides*), Pillwort (*Pilularia globulifera*) and Needle Spike Rush (*Eleocharis acicularis*). A large colony of Bird's Nest Orchids (*Neottia nidus-avis*) was discovered on an entry stream to Boldermere in 2005 along with previously undiscovered Royal Fern*(Osmunda regalis)*. Heathland restoration has seen the partial recovery of Bog Pimpernel (*Anagallis tenella*) at Puck's Pond.

The dry heath areas support one bush of *Erica cinerea rendleii*, a Bell Heather mutation, whose 2004 identification was only the 40th national record of this variant.

The dry heath areas are also highly unusual in Surrey for their lack of Gorse (*Ulex europaeus*) and the lack of vigour that any seedlings demonstrate. Whether this is related to a large rabbit population or a nutrient or mycorrhizal imbalance is unknown.

Wild Service trees (*Sorbus torminalis*) grow in Hunt's Copse (TQ 080 578), a small block of ancient woodland.

3.2.2.3: Fauna

The areas of lowland heath support the greatest number of protected species. This includes a colony of Sand Lizard (*Lacerta agilis*) reintroduced in 1991 from Dorset. Breeding birds include Hobby (*Falco subbuteo*), Dartford Warbler (*Sylvia undata*), Woodlark (*Lullula arborea*) and Nightjar (*Caprimulgus europaeus*) all of which breed at Wisley. The latter three species are listed on Annex I of the Birds Directive (79/409/EEC). Also on this list is Common Tern (*Sterna hirundo*), a small colony of which started to breed on purpose built rafts on Boldermere in 2004.

Ockham & Wisley Commons are highly rated amongst entomologists due to the range and diversity of habitat types. A number of entomological surveys have been carried out. These surveys have recorded 26 species of dragonfly and damselfly *(Odonata),* making the site of national importance for this group. It is also of national importance for true flies (*Diptera*). The area as a

whole had representatives of 20% of all UK heteropterous bugs and 30%of all Craneflies. The site also supports many other local and rare invertebrates, including a large number of local beetles. The assemblage of reed beetles (*Donacia*) species around Boldermere is considered one of the finest in the country with 9 species recorded. The deciduous woodland supports fine colonies of Stag Beetles (*Lucanus cervus*) whilst the lack of light pollution means that there is a healthy Glow worm (*Lampyris noctiluca*) population. Surrey's only population of Wood Cricket (*Nemobius sylvestris*) exists across the site following their accidental introduction on a delivery of azaleas to Wisley Gardens in 1967.

The colony of Silver Studded Blue butterfly (*Plebejus argus*) became extinct in 1992. A reintroduction of 50 individuals in 2005 is presently being monitored. The White Faced Darter (*Leucorrhina dubia*) in Pond Farm Pond and the Hairy Dragonfly (*Brachytron pratense*) are also believed to have disappeared from the site. A Heath Tiger Beetle (*Cicindela sylvatica*) reintroduction is being considered once its current status on the site is determined.

The combined factors of floristic and invertebrate diversity coupled with woodland refuge areas that are seldom disturbed leads to strong populations of Badger (*Meles meles*), Fox (*Vuples vulpes*) and Roe deer (*Capreolus capreolus*). Rabbits (*Oryctolagus cuniculus*) are making a good recovery following a myxomatosis related population crash.

3.2.3: Cultural

3.2.3.1: Archaeology

The site shows archaeological evidence of a long history of human activity, particularly from the Middle Stone Age to the Roman period. There are four Scheduled Monuments:

- Cockrow Hill Bronze Age Bell Barrow (TQ 079 592). The central mound is 20 metres in diameter and 1.5 metres high. There is a surrounding platform, or berm, 5.5 metres wide and 1.5 metres above the surrounding ground surface. The overall diameter of the raised area is 44 metres. Excavated in 1911 when evidence of a cremation burial was found. Dates from Early to Middle Bronze Age (1500-1100 BC). Bell barrows are rare nationally with fewer than 250 known examples.

- Bronze Age Bowl Barrow near Pond Farm (TQ 076 591). The barrow has a central mound of 31 metres in diameter and is 1.2 metres high. Dating from Late Neolithic to Late Bronze Age (2400-1500 BC).

- A possible small Henge at Red Hill (TQ 085 597). Believed to be late Neolithic (between 3000 and 2300 BC). It is possible there are two graves within the 40 metre diameter, earth banked

feature which have been located with magnetic equipment. If they do represent graves then the site should be interpreted as a cemetery. It is felt that the damage to the north east side was caused by ironstone quarrying by the Romans.

- Chatley Heath Semaphore Tower, Grade II* listed (TQ 089 585).

There is also a circular earth ring (TQ 085 585) and finds of Mesolithic flints within the area. In addition there is evidence of other features of interest such as possible medieval field systems involving ridge and furrow. Associated occupational evidence can be expected. Evidence of old tracks and quarries of various dates and purposes is also found.

There were at least three man-made ponds in existence in the 16th century:

- Boldermere (which extended up to Old Lane in the past)
- Wisley Pond (where Pond Farm is now situated, dug between 1729 and 1772)
- Culverwell Lake (all evidence of which disappeared during the M25's construction).

Their original purpose is not clear although Trout (*Salmo Trutta*) ponds remain a possibility. There is one tithe map that suggests a series of ponds ran down from the east of Telegraph Hill to Boldermere. Boldermere and Culverwell were both used to drive iron mills (at TQ 065 590 or 067 595) in the 17th century. Wisley Pond was drained by Lord King in 1820s and the farm created. Brick arches carried the track to the farm over the marshy area.

A summary map of archaeological interest is attached at Figure 5.

Due care should be taken over these definite archaeological features during conservation management work and permissions from English Heritage may be required.

3.2.3.2: Past land use

- Ockham Common Inclosure Award 28th September 1871.
- Canadian soldiers training across heaths in World War Two.
- 1936-1965 Surrey County Council purchases.
- 1986 M25 constructed through site and A3 widened.

3.2.3.3: Present land use

The whole site is under management for nature conservation and public access. However other land uses exist.

All of Wisley Common (apart from Pond Farm) and Chatley Heath are Registered Common Land and are subject to rights of access on foot and

horseback under Section 193 of the Law of Property Act 1925. They were mapped as Open Access Land under the Countryside and Rights of Way (CROW) Act 2000 but this does not affect the pre-existing rights of access.

Ockham Heath, Clearmount, Hatchford Woods and Snake's Field are not Registered Common Land and did not qualify to be mapped as Open Access Land. However in practice the public enjoy access on these areas. When the common land exchange process is complete, these areas will become subject to CROW access rights.

Maps showing Open Access Land can be found at www.openaccess.gov.uk.

A system of Footpaths, Bridleways, Permissive Horse rides and informal paths exist. There is one Byway Open to All Traffic (BOAT) between Old Lane and Elm Corner.

Boating and swimming are prohibited under the byelaws and there is no longer licenced fishing.

A licensing agreement is in place with a BMX club, "Wisley Trails" on a small area to the northeast of the motorway junction to be used as a cycle track.

3.2.3.4: Past management for nature conservation

Little active nature conservation work took place prior to 1989. There was very occasional grazing of parts of Wisley Common by stock escaping from the smallholding at Pond Farm. Extensive scrub encroachment was degrading habitats and limiting public access. Initially work was directed towards scrub clearance and path maintenance.

Heathland Recreation and Restoration

Heathland recreation started in the mid 1990's and by 2006 the site had become the largest heathland restoration project in the Thames Basin Heaths SPA. Felling and thinning licences are now in place on the remaining woodland blocks to increase habitat quantity and quality. These licences run to 2012 by which time 100 hectares of wet, humid and dry heath will exist. Further works need to be planned beyond 2012. Figure 8 shows vegetation comparisons between 1948 and 2011, Figure 9 shows the clear fell forestry works and Figure 10 maps the woodland thinning areas.

The humus layer has been scraped off some areas to encourage heather regrowth. Trial areas cleared in 2006 showed that heather and other plants recovered quickly without scraping in wetter areas where the humus depth was shallow. Further experimentation is needed to identify exactly which areas require scraping and which do not. An agreement was reached with Natural England to scrape areas that have a litter layer of more than 5 cm and this is being funded under the HLS agreement.

Grazing

An application was made to the Secretary of State (under Section 194 of the Law of Property Act, 1925) on the 9th December 2002 to fence Wisley Common and provide access gates.

Permission was granted on the 1st October 2003 but was delayed pending an a legal challenge by the Open Spaces Society (OSS). The decision was upheld by the High Court. Livestock fencing was erected in the spring and summer of 2005 and the first 12 cattle were released on 7th October 2005. They remained on site until the last week of November 2005.

In 2006 16 cattle grazed between May and September and it was in this year that real biodiversity benefits were observed including:

- Common Spotted Orchids (*Dactylorhiza fuchsii*) seen for the first time
- A significant increase in the population of Bog Hair Grass (*Deschampsia setacea*)
- New invertebrate records associated with livestock dung.

2007 saw no grazing on the open heath due to the Foot and Mouth outbreaks in August and September. Surrey Wildlife Trust now has its own herd of cattle and is able to ensure that the correct stocking rates and seasons are observed for maximum biodiversity benefit.

Bracken

By 2006 the site had become extremely overgrown with Bracken (*Pteridium aquilinum*). Small scale bracken control operations were carried out by the SWT Countryside Team and contractors, who sprayed some areas, and by ranger staff who mowed and rolled other sections. The award of a Higher Level Scheme (HLS) agri-environment grant in 2007 by Natural England has provided funds to start a more extensive approach. This has already yielded up to 80% reduction in bracken cover in some areas. All sprayed areas will be subject to ongoing monitoring and follow-up treatment where necessary.

Scrub

Dense scrub has been cleared since 1991 re-creating an open heathland habitat. The grazing animals now contribute to scrub control on Wisley Common by browsing scrub and helping to control scrub establishment.

Ockham Heath has a more extensive scrub problem largely due to high nutrient levels in the soil and significant “seed rain”. Consequently much time is spent clearing invasive birch and pine by hand. A birch coppice rotation system has developed over the years to supply Wisley Gardens with birch for plant supports and seasonal decorations.

Amphibian and Reptile Conservation (ARC) manages the south facing Sand Lizard (*Lacerta agilis*) release site, under a management agreement, controlling both scrub and bracken.

Heather Management

It is essential to create and maintain an uneven age and structure within heather stands and undisturbed bare ground to achieve favourable condition. Some areas have been cut and the arisings collected with tractor mounted equipment whilst others have been mown with an Allen Scythe and then raked. In 2006 a partnership was established between SWT and Queenwood Golf Course near Chobham. Queenwood are laying large areas of turf around their fairways and bunkers and take the turves from SWT sites such as Chobham, Whitmoor and Wisley. These newly created bare areas have shown good heather regrowth and increased bare ground loving fauna.

The introduction of a controlled burning programme is a pressing requirement to manage the increasing amount of heathland re-created over the last twenty years and as an effective means of producing bare ground, removing nutrients and increasing biodiversity interest.

Rhododendron Control

Attempts have been made to control this species. The species is to be eradicated from the site by 2017. The dense thickets behind the Semaphore Tower may best be controlled by digger excavation of their root systems followed by burning.

Other Invasive species

Ongoing efforts are being made to control Pirri-pirri-Bur (*Acaena novae-zelandiae*) on Wisley, to eradicate Himalayan Balsam (*Impatiens glandulifera*) and to remove the Shallon (*Gaultheria shallon*) population on Wisley North. Action plans are being produced for decreasing the New Zealand Pygmy Weed (*Crassula helmsii*) in Boldermere.

Boldermere

Boldermere was previously leased for fishing and commercial boating interests. The boating was stopped in 2002 whilst the fishing licence was terminated in April 2005. The lake was netted in the summer of that year to remove several thousand pounds worth of illegally introduced Carp (*Cyprinus carpio)*. Water clarity has increased enormously due to the stopping of baiting and fishermen wading into the lake. Unsuccessful attempts have been made to catch the Red Eared Terrapins (*Trachemys scripta elegans)*. Their population is believed to be between 4 and 6 individuals.

Works have been undertaken to push back the scrub surrounding the shore to provide better habitat for marginal aquatic species. Spider Island, in the middle of Boldermere, was cleared of scrub in 2006.

Snake's Field and Surrey Cottage Meadows

Snake's Field has been forage harvested for many years. In 2005 it was chain harrowed and seeded with Ox-eye daisies and Yellow Rattle. Both these species have colonised the field successfully. In 2006 the field was fenced and is now aftermath grazed.

Surrey Cottage Meadows were set-aside for a tenant farmer and had become overgrown. They were ploughed and seeded with a local provenance wildflower seed from the High Weald AONB Initiative. They have been forage harvested and aftermath grazed since 2005.

Wildlife Introductions

35 Sand Lizard (*Lacerta agilis*) 22 adults, (11males, 11 females) were released onto Ockham on 17th May 1991.
50 Silver-studded Blue (Plebejus argus) Ockham 22nd June 2005.

3.2.3.5: Past status of the site

There are a large number of floral, entomological, mycological and bird records for Wisley & Ockham. These have now been collated and are stored with site staff and at the Surrey Biodiversity Information Centre.

3.2.3.6: Present legal status of the site

Ockham & Wisley Commons are a designated Site of Special Scientific Interest (SSSI) under the Wildlife & Countryside Act 1981. The site was first scheduled for SSSI status in 1975 (under the National Parks & Access to the Countryside Act 1949) and notified under the Wildlife & Countryside Act 1981 in 1986. The SSSI area west of the M25 is also part of the Thames Basin SPA under the EC Birds Directive (79/409/EEC).
The Natural England Conservation Objectives for the SSSI/SPA are attached at Appendix 5.
The site was declared a Local Nature Reserve (LNR) in 2005.
The whole site is designated Metropolitan Greenbelt.
Wisley Common (155.62 ha, CL 350), Chatley Heath (27.22 ha, CL 446) are Registered Common Land.

3.3: Current public use & interest

3.3.1: Public interest/relationship with local communities

Public Interest

The principal public interest in the site is for recreation. The majority of visitors appreciate and value the area because it is Registered Common Land available for informal "air and exercise". Visitors range from motorists on the A3 and M25 taking a break on their journey at the catering unit through to visitors who come specifically to Chatley Heath to visit the Semaphore Tower. The majority of visitors are respectful of other site users, the byelaws and the conservation interests.

Figures 6 and 7 map the visitor furniture, access routes, car parks and main visitor pressure areas.

In line with other Thames Basin Heaths (TBHs) there are growing concerns about disturbance of the three Special Protection Area (SPA) bird species - Dartford Warbler, Woodlark and Nightjar – by visitors and their dogs. In depth visitor surveys have been undertaken and further work is being commissioned by Natural England. Further analysis and discussions will follow from NE's Thames Basin Heaths Development Plan. Subsequent mitigation and access works may see a reorganisation and zoning of visitors. Mitigation measures, such as provision of Suitable Alternative Natural Green Space (SANGs), are designed to reduce the overall numbers of visitors to SPA sites. At the time of writing this plan is still being developed but it must be borne in mind that the protection of the SPA species is a legal requirement.

Relationship with local communities

Ockham & Wisley Commons have only a dozen houses sharing their boundary. The lack of a large neighbouring residential population means the majority of visitors arrive on site by car. Consultation meetings have been set up to address local issues as necessary; in particular with Elm Corner residents. There is one annual liaison meeting and one site visit per year with local stakeholders. The site also features prominently in SWT's annual Northern Area Newsletter. Nearby local people take great pride in their Commons and attend volunteer work parties in the winter months helping with a variety of tasks.

Individual conservation groups have an interest in the site for the conservation of specific wildlife species. The Wisley Recorders Group was set up in 2006 and has been responsible for recording the first Redstarts (*Phoenicurus phoenicurus*) on Wisley for over 40 years and locating Hobby *(Falco subbuteo)* nests to ring and monitor.

3.3.2: Access & tourism

Walkers

The site is one of the largest areas of public open space within 5 kilometres of the suburban areas of Weybridge and Cobham and is easily accessible by main roads. Some parts of the site have a high volume of visitors. Ockham Common is particularly heavily used, both by people specifically visiting the site and by visitors in transit who have stopped for refreshment or a break in their journey. Wisley is considerably quieter although is regularly used by local people especially from Wisley Village. Parts of the site remain relatively undisturbed by visitors.

The site displays the typical patterns of weekday usage of a recreational site in Surrey. These can be summarised as follows:

09:30-11.00 Dog walkers' morning visit.
12:00-14:00 Car parks busy with visitors eating lunch in cars.
14:00-16:00 Dog walker's afternoon visit.

Outside these times the site can often be visited without meeting anyone else. This is especially true of Wisley Common.

The situation is slightly different at weekends with a more general spread of visitors during the day although the dog walkers retain their predictable hours.

Horse Riders

Under Section 193 of the Law of Property Act 1925 the Commons are subject to rights of access on horseback. Equestrian use of Ockham Heath and Chatley Heath in particular is high. Usage is mainly by local people and by four commercial local livery stables and riding schools.

Ongoing management for horseriders includes surfacing and clearing bridleways (BW 18, 69 & 70) and the creation of a network of way marked horse rides. Regular patrolling is necessary to ensure that riders stay on the agreed horse ride system and to manage potential conflict with other users. Whilst riders have a right to ride anywhere on the common, in practice they tend to stick to designated routes. It is important from the point of view of preventing disturbance of nesting birds and other wildlife that they continue to do so. Further tree clearance may have the effect of encouraging horse riders and others to venture off the existing tracks onto the open heath.

The perimeter fence of Wisley has proved popular with both horse riders and dog walkers as it reduces the chances of their animals being able to run onto the road. All access gates installed across the site have been made rider-friendly with long handled opening systems so riders do not have to dismount. Mounting blocks have also been made available at both ends of the site's bridges.

Cyclists

The site is popular with mountain bikers who mostly pass through the site as a part of a longer route and tend to keep to defined bridleways and permissive horse rides. Unlike horse riders, they do not have a statutory right of access to the open heath.

BMX Riders

The BMX club "Wisley Trails" has a licensed area along Pointer's Lane where they are free to maintain and ride their earth jumps. They pay a licence fee to SWT every year and hold insurance with the British Cycling Federation. Licensing this activity has removed the BMX pressure from elsewhere on site and allowed close liaison between SWT staff and the riders. Consequently rubbish and vandalism has been much reduced. This activity has been consented by Natural England.

Runners

The site is increasingly used by running clubs for specific organised events. These can involve as many as 750 participants and are organised in close co-operation with the site Ranger. Events are always timed to avoid bird nesting season.

Barbeque Visitors and Norooz

Boldermere is an extremely popular barbeque spot. Barbeques are only permitted on the shore area to the northeast of the lake and permission must be obtained from the site ranger before the barbeque can be started. Some problems exist with people trying to start fires elsewhere but this is not considered to be a significant management issue.

In the last few years there has been a marked increase in visitor numbers for Norooz, the Iranian New Year. Part of the celebration calls for Iranians to spend the 13th day outdoors with their families and friends. This usually happens on the last Sunday in March. In recent years over 400 people have visited the beach area to barbeque and play games. The site Ranger now manages this activity to ensure the day passes smoothly to avoid disruption to other visitors.

Illegal Raves

There have been some issues with young people coming out of London and Guildford to have parties around Boldermere and Ockham. Again, careful negotiations have resulted in these problems easing over time and rubbish and vandalism being reduced.

Motorcycling and 4x4's

Motorcycling exists as a constant but low intensity problem. The disused Wisley airfield is the main local site for these riders. There are some youths who ride from Byfleet across Wisley Common by crossing the bridge over the M25. The motorcycling problem on Pointers Road has been eased by gates, ditching, signage and liaison with Surrey Police.

4x4 vehicles use the Byway Open to All Traffic (BOAT) between Elm Corner and Old Lane and used to travel off this to Boldermere. This problem has been prevented by stumping and log positioning along the lane.

Anti-Social Behaviour

The Old Lane car parks and their surrounding areas have developed into a Public Sex Environment (PSE).

The PSE is problematic due to:

- Clinical waste being left on site.
- The public (including families) coming across the PSE activities taking place.
- Large numbers of people sitting in cars staring at site visitors. This has been remarked to be disturbing by many visitors.
- A general unwelcoming feeling. This is hard to qualify but it has been commented upon by many visitors (and complainants) to the common. Large numbers of people walking in and out of the woods who are evidently not on site to take part in more traditional uses of the countryside perturb other site users. Many have suggested they will not use the common again until the PSE users have moved on.
- Damage to car park infrastructure, for example locked barways.

The above problems and their management take up very large amounts of SWT staff time. For instance a whole month of the Ranger's 2005 work time was dedicated to this issue. This is an expense to SWT both in actual cost but also to the detriment of SWT's main objectives; nature conservation and traditional public access work.

A special Surrey Police "Gold Group" was set up in 2006 to counter homophobic violence and this has been attended by SWT, The Terrence Higgins's Trust, NHS health workers and SCC.

There has been a chronology of attempts to control, reduce and zone the PSE by site staff and Surrey Police. These have occasionally had some impact but none has been long lasting or proved to be a panacea. Patrolling and night time exclusions have thus far failed to control the problem. The very high volumes of litter left in and around the car parks is a difficult management problem. The issue is especially bad in Pond car park where there is less light for enforcement agencies to work with. Discussions with Surrey Police and Guildford Borough Council regarding options for lighting the car park are

underway. Any proposal for new lighting will need to be assessed for its ecological impact and would be subject to consent from Natural England.

3.3.3: Current interpretation provisions

- Countryside room at Ockham Bites
- SWT notice boards give information on wildlife, historic and cultural significance of the Commons, as well as details of local events and walks. They are located at the following locations:
    1. Boldermere Car Park
    2. Pond Car Park
    3. Wren's Nest Car Park
    4. Boldermere/Old Lane
    5. On the Wisley side of the A3 bridge
    6. The Semaphore Tower
    7. The southern side of the M25 Wisley bridge
- Informal site notices about specific operations and seasonal "Ranger Notes"

3.3.4: Current educational use

Requests for educational use of the site are facilitated and encouraged by SWT. Individual students have undertaken geography or related projects in liaison with the site ranger. Other educational use of the site is informal with regular guided walks or illustrated talks by site staff.
More formal National Curriculum based education is offered at other SWT sites and a schools outreach programme is operated by SWT's Surrey Greenspace Project.

3.3.5: Current research use & facilities

The site is underused by research institutions. It is hoped that the large scale management projects progressing will encourage academic centres to become involved. SWT is developing closer links with universities and there is increased use of SWT sites for post graduate field work particularly from Imperial College. Priorities for future research will focus on ecological changes as a result of the introduction of grazing and large scale heathland restoration.

3.4: Landscape

Ockham & Wisley Commons present a diverse and varied landscape of undulating heathland, woodland and grassland with open water. The site offers pleasant visual contrasts between open areas and denser woodland. There is a noticeable contrast between Ockham Heath and Wisley Common; Ockham being more formal with a heavily used path network.

The planned 30 hectares of heathland clearance works have been designed by site staff, the Forestry Commission and a group of local stakeholders to produce maximum wildlife benefits whilst opening up landscape vistas that have not been seen for more than 40 years.

3.5: Bibliography

1. Draft Wisley and Ockham Management Plan, David Boddy, Surrey Wildlife Trust. 2001.

2. NVC Survey for Ockham and Wisley, Dr. Giles Groom, EPR on behalf of English Nature. September 2004.

3. Wisley & Ockham SSSI Citation, Joint Nature Conservancy Council, 1986 (1975).

4. The Flora of Wisley & Ockham Commons, with Chatley Heath, Surrey, A.C. Leslie, The London Naturalist, No. 60. 1981.

5. A preliminary list of flowering plants and ferns occurring naturally in the Wisley Garden and its immediate neighbourhood, A. Simmonds and W.D. Cartwright, The Journal of the RHS Gardens Club, No. 3, 1-20. 1910.

6. Additions to the field flora of Wisley, G.B. Bassett, C.C. Titchmarsh, J.B. Harris and F.J. Chittenden, The Journal of the RHS Gardens Club, No. 5, 14-16. 1912.

7. Records of species on Wisley & Ockham Commons, J. Adler, Surrey Wildlife Trust and Wisley Recorders Group, unpublished. 2002-2007.

8. Written archaeological correspondence between B. Booth and D.G. Bird, SCC and Surrey Archaeological Society. 1989.

9. Wisley & Ockham Commons entry's on The Schedule of Ancient Monuments, English Heritage, 1934 (Revised 1993).

10. Visitor patterns on southern heaths: a review of visitor access patterns to heathlands in the UK and the relevance to Annex I bird species, John C. Underhill-Day & Durwyn Liley, Ibis (2007), 149 (Suppl. 1), 112–119

4: FEATURES OF INTEREST

4.1: Identification/confirmation of nature conservation features

4.1.1: List of recognised conservation features

1. Lowland Dry Heathland (Ockham & Wisley)

- *Calluna vulgaris* – Ling
- *Erica cinerea* – Bell Heather
- *Agrostis capillaris* – Common Bent Grass
- *Deschampsia flexuosa* – Wavy Hair Grass
- *Ulex minor* – Dwarf Gorse
- *Genista anglica* – Petty Whin
- *Teesdalia nudicaulis* – Shepherd's Cress
- *Plebejus argus* – Silver-studded Blue
- *Cicindela sylvatica* – Heath Tiger Beetle
- *Caprimulgus europaeus* – Nightjar (SPA species)
- *Sylvia undata* – Dartford Warbler (SPA species)
- *Lullula arborea* – Woodlark (SPA species)

2. Lowland Wet Heathland (Wisley and Boldermere)

- *Calluna vulgaris* – Ling
- *Erica tetralix* – Cross-leaved Heath
- *Molinia caerulea* – Purple Moor Grass
- *Deschampsia cespitosa* – Tufted Hair Grass
- *Sphagnum* spp.
- *Osmunda regalis* – Royal Fern
- *Scutellaria minor* – Lesser Skullcap
- *Cirsium dissectum* – Meadow Thistle
- *Salix repens* – Creeping Willow
- *Deschampsia setacea* – Bog Hair Grass (Surrey's largest colony)
- *Metriotera brachyptera* – Bog-bush Cricket
- *Asilus crabconifrmis* – Robber Fly

3. Open Water (Boldermere/Teal Pond/Pond Farm Pond/Puck's Pond)

- *Littorella uniflora* – Shoreweed
- *Hypericum elodes* – Marsh St John's Wort
- *Baldellia ranunculoides* – Lesser Water-plantain
- *Eleocharis acicularis* – Needle Spike-rush
- *Pilularia globulifera* – Pillwort
- 20 spp. of *Odonata, including*
- *Leucorrhinia dubia* – White-faced Darter – probably extinct (3.2.2.3)
- *Brachytron pratense* – Hairy Dragonfly

- *Sympetrum sanguineum* – Ruddy Darter

4. Whole Area

- *Diptera* – True flies
- *Thyridanthrax fenestratus* – Bee Fly
- *Tipula livida* – Crane Fly
- *Limonia inusta* – Crane Fly
- *Amara infima* – Ground Beetle
- *Byctiscus populi* – Weevil

4.1.2: Provisional list of additional conservation features

1. Lowland Dry Heathland (Ockham & Wisley)
    - *Lacerta agilis* – Sand Lizard
    - *Falco subbuteo* – Hobby

2. Lowland Wet Heathland (Wisley and Boldermere)

    - *Neottia nidus-avis* – Bird's Nest Orchids
    - *Asplenium scolopendrium* – Hart's Tongue Fern
    - *Drosera rotundifolia* – Round Leaved Sundew
    - *Drosera intermedia* – Oblong Leaved Sundew
    - *Anagallis tenella* – Bog Pimpernel
    - *Lophozia capitata* – Large-celled Flapwort
    - *Rhynchospora alba* – White-beak Sedge

3. Open Water (Boldermere/Teal Pond/Pond Farm Pond/Puck's Pond)

    - *Sterna hirundo* – Common Tern
    - *Donacia* spp. – 9 species of Reed Beetles

4. Woodland

    - *Sorbus torminalis* – Wild Service Trees
    - *Quercus robur & petraea* – Historic Pedunculate and Sessile Oaks
    - *Quercus ilex* – Holm Oaks
    - *Sequoiadendron giganteum* – Wellingtonia
    - *Sequoia sempervirens* – Coast Redwoods
    - *Apatura iris* – Purple Emperor
    - *Nemobius sylvestris* – Wood Cricket

5. Grassland

    - *Rhinanthus minor* – Yellow Rattle
    - *Alauda arvensis* – Skylark

4.1.3: Evaluation of additional conservation features

1. Lowland Dry Heathland (Ockham & Wisley)

- *Lacerta agilis* – Sand Lizard. This species was introduced to Ockham in 1991 by Herpetological Conservation Trust. Breeding has occurred every year since and the population extended well beyond their initial release area. Populations of Sand Lizard are declining throughout Europe.

- *Falco subbuteo* – Hobby. This species has bred every year since 2001. A brood of 3 chicks was successfully ringed in 2007.

2. Lowland Wet Heathland (Wisley and Boldermere)

The following species of note are dependent on specific hydrological conditions

- *Neottia nidus-avis* – Bird's Nest Orchids. Large colony of previously unknown 112 flowering spikes discovered in 2004. Never before recorded on site. Frequent to locally common in southern England but usually associated with Beech woodland. Declining nationally and described as Near Threatened on the Surrey Botanical Society Rare Plants Register (SBSRPR).

- *Asplenium scolopendrium* – Hart's Tongue Fern. 3 plants of this discovered in 2006/7. Common but nearly always found on calcareous substrate.

- *Drosera rotundifolia* – Round Leaved Sundew. Locally common but decreasing nationally due to habitat destruction. Listed under species of Least Concern on SBSRPR.

- *Drosera intermedia* – Oblong Leaved Sundew. Widespread but very local. Declining nationally. Listed under Species of Least Concern on SBSRPR.

- *Anagallis tenella* – Bog Pimpernel. One plant remaining in 2006. Frequent to locally common. Listed under Species of Least Concern on SBSRPR.

- *Lophozia capitata* – Large-celled Flapwort. Found on Wisley in 2006. This is first county record of this nationally rare species since 1970.

- *Rhynchospora alba* – White-beak Sedge. One flowering plant found in 2005. This is as far East as this species is found in the county. Listed under Species of Least Concern on SBSRPR. A very local plant nationally.

3. Open Water (Boldermere/Teal Pond/Pond Farm Pond/Puck's Pond)

- *Sterna hirundo* – Common Tern. A new species which was first encouraged to breed on Boldermere in 2004.

- *Donacia* spp. – 9 species of Reed Beetles. Considered one of the best reed beetle assemblages in the UK.

4. Woodland

- *Sorbus torminalis* – Wild Service Trees. 2 trees remaining in Hunt's Copse in 2007. No sign of these trees propagating or suckering. Scattered in England and only ever locally frequent. Listed under Species of Least Concern on SBSRPR.

- *Quercus robur & petraea* – Historic Pedunculate and Sessile Oaks. Neither species is threatened but the lines of pollarded boundary (some on field and other on Parish boundaries) oaks have a historic and cultural value. The oldest oak has been dated to the 17th century.

- *Quercus ilex* – Holm Oaks. Common in England but usually on calcareous substrate. Increasing and can be invasive on some sites. These specimens are part of the old arboretum in Hatchford Woods.

- *Sequoiadendron giganteum* – Wellingtonia. 1 tree in Hatchford Woods.

- *Sequoia sempervirens* – Coast Redwoods. 20 trees in Hatchford Woods. Some of the earliest Redwoods in the UK as have been tentatively dated to the 1860's.

- *Apatura iris* – Purple Emperor. Being seen increasingly on Wisley. It is a UK BAP Species of Conservation Concern.

- *Nemobius sylvestris* – Wood Cricket. Surrey's only colony.

5. Grassland

- *Rhinanthus minor* – Yellow Rattle. Common nationally but considered a Surrey interest species.
- *Alauda arvensis* – Skylark. On the RSPB Red List. The population halved in the 1990's and is still declining.

4.1.4: Confirmed list of the conservation features:

- FEATURE 1 Heathland
- FEATURE 2 Woodland
- FEATURE 3 Grassland
- FEATURE 4 Open Water

5: SERVICES, FACILITIES, OBLIGATIONS ETC.

5.1: Identification/confirmation of other focus points of plan

In addition to the conservation features discussed above the following features are also important aspects of the management plan:

- FEATURE 5 Archaeology
- FEATURE 6 Access Interpretation and Recreation
- FEATURE 7 Funding
- FEATURE 8 Legal and other obligations

Feature 1 - Lowland Heathland

Objective 1

Restore, and where feasible recreate, areas of heathland to a favourable condition as defined by Natural England Conservation Objectives (see Appendix 5). This will entail the maintenance of existing habitat, expansion of these areas and the creation of links - all as shown in the Figures 8, 9 and 10.

Factors and Limits

Succession

In the absence of active management lowland heath will be lost through seral succession to scrub and woodland. Succession will also adversely affect features within the open heathland such as bare ground, early colonist and ephemeral communities.

Visitor Pressure

The site already experiences a high level of public access. Any uncontrolled increase in visitor numbers will have a detrimental effect on the feature and habitat -dependent species through habitat fragmentation, trampling and eutrophication.

Nitrogen Deposition

Ongoing air borne pollution will cause nitrogen deposition giving rise to changes in the vegetation communities with a likely increase in grasses at the expense of ericoids.

Attributes and Limits

1. Extent of lowland heathland

Existing wet and dry heathland components should remain at its current extent. A further 5 ha of heathland to be restored from wooded areas during the life of this plan.

Upper limit: 100 ha
Lower limit 95 ha

2. Vegetation Structure

A range of heather age classes (from pioneer to over mature) are present across the site.

The lowland dry heathland component supports:

- Pioneer phase 10-40%
- Building/mature 20 - 80%
- Degenerate <30%
- Dead < 10% of total ericaceous cover

The lowland wet heathland component supports heather in all stages of growth.

3. Vegetation Composition (of dry and wet heathland components)

- At least two species of heathland dwarf shrub species present and at least frequent
- Graminoids - at least 1 species at least frequent and 2 species at least occasional throughout the sward but *Deschampsia flexuosa* no more than occasional.
- Desirable forbs - at least 2 species at least occasional throughout the sward.
- The habitat supports < 5% bracken and < 10% birch scrub > 50cm
- Upper limit: bracken 5%; scrub 10%
- Maintaining some scrub is highly desirable

4. Bare Ground

- The lowland dry heathland component requires at least 5% but not more than 10% bare ground

- The wet heathland component requires at least 1% and no more than 10% bare ground

Management Rationale

In view of the dynamic nature of lowland heathland, the least appropriate management strategy is non-intervention. In order to meet the objective described for the lowland heathland feature, work to arrest natural succession will be continual and planned.

Work will be undertaken to control trees and scrub such as birch and Scots pine which are all highly invasive on the Commons and, if left unchecked, can swamp heathland communities. Areas of dense scrub or trees will be cleared in strategic areas in order to recreate the heathland habitat. Dense stands of pine will be clear felled as indicated in Figure 9, whilst in other areas emphasis will be placed on management and control of these species. Bracken will be monitored and controlled by swiping and chemical control.

In addition, areas of scrub on heathland areas will be cut or swiped to encourage regeneration of the heathland vegetation and control invasive species. Invasive plants will be uprooted or cut and treated with appropriate chemical and turfs will be removed in key areas to create bare ground. Scrapes and ponds will be maintained and created in the wet heath areas.

Cattle grazing on Wisley Common will be maintained as a sustainable means of arresting succession, reducing the coverage of *Molinia caerulea* and scrub re-growth in favour of ericoid communities. Grazing has been shown to result in creation of a mosaic of habitats and age-structure necessary to maximise biodiversity and maintain the site in favourable condition.

Historically, much of Wisley Common has been wetter than today and this is reflected in the species listed in the SSSI citation.

A proposed scheme is being developed to manipulate hydrology in areas of wet heath on Wisley to the north of Teal pond which are drying out due to previous artificial drainage ditches probably dug in the 1960s and evapo-transpiration from secondary woodland and bracken. It is proposed that these ditches will be blocked to increase seasonal surface water and ground saturation levels. This scheme will be subject to consent from appropriate authorities includng: Natural England, The Environment Agency, and Guildford Borough Council; the latter as the drainage authority for the area. The aim of this project would be to achieve favourable condition and restore the habitat for (or directly re-introduce if necessary) scarce aquatic-marginal plants which were previously recorded from this area.

Resources for carrying out the work will be underpinned by funding from the Environmental Stewardship Higher Level Scheme - see Appendix 6

Management List -

Carry out a variety of management techniques in order to achieve the stated objective.

Manage habitat

- Bracken control by spraying
- Controlled grazing –
    - Graze Wisley Common June to November
    - Graze meadows as appropriate.
    - Inspect and repair grazing infrastructure on Wisley and layback land - once a week during grazing period.
    - Inspect and report on livestock. 6 days a week when stock are on site.
- Manage scrub by any form of clearance except chemical treatment.
- Clear areas of pine to recreate heathland.

- Manage heather stands by controlled burning.
- Remove leaf litter by scraping and remove from restoration area.
- Create bare ground areas for heathland species.
- Ensure disturbed ground is present in areas of pioneer heather.
- Manage for sand lizard –
    - Maintain open sand tracks by rotovation.
    - Monitor proportions of open sand to degenerate stage heather.
    - Monitor hatchling sand lizards with Amphibian and Reptile Conservation by observation.

Liaison with others
Liaise with the following organisations as necessary:

- Amphibian and Reptile Conservation - regarding management carried out for sand lizards.
- Volunteer groups including publicising regular volunteer events.
- Consider requests for all recreational events and issue permission if appropriate taking into account nature conservation objectives - including visitors and lessees of Ockham Bites and Birchmere Scout Camp

Monitor progress towards achieving the stated objective.

Fixed point photography

- Standard technique will be used. The selection criteria for the fixed points was to select those points that represent visually the greatest coverage of the site.

Aerial photography

- Acquire up to date aerial photographs as they become available and use to update habitat maps.

Hydrological survey

- Investigate vegetation community responses to changes in hydrology on Wisley Common. Establish recommendations for manipulation of hydrology to re-establish wet heath areas.

Grazing specific monitoring project

- Repeat survey of plants, insects and birds following standardised methodology carried out Summer 2005.

Collect data, - vascular plants, monitor *Deschampsia setacea*

- Count the number of spikelets occurring annually.

Collect data - heathland bird survey

- Monitor Hobby *(Falco subbuteo)*' Woodlark *(Lullula arborea),* Nightjar *(Caprimulgus europeaus)* and Dartford Warbler *(Sylvia undata)*
- Record additional notable species.

Collect data, general insect surveys

- Commission/undertake *Tipulidae* (crane fly) surveys

Feature 2 - Woodland

Objective 2

The woodlands on the site fall into several categories –

- Landscape or historically significant woodland with large boundary oaks on perimeters
- Areas of wet woodland
- Coppice woodland
- Former plantation
- Secondary successional woodland over heathland arising as a result of historic lack of management.

The overall objective is to manage the woodland appropriate to its context within the site.

The successional woodland and former plantation will largely be removed as part of the recreation of heathland. The historic and landscape woodland will be managed to maintain the features of interest e.g. sequoia and the wet woodland areas will be managed (in terms of structure and composition) to achieve and then maintain a favourable condition.

There will be a gradation from the heathland and other open habitat into mature woodland. Near to the heathland areas, heathy glades will be present.

Coppice woodland and wet woodland will support a varied mix of native trees and shrubs of varied ages and a good balance between canopy, shrub and field layers. The varied structure will support a diversity of mammals, invertebrates, birds and other fauna.

Between 20% and 33% of the woodland area will be open as a result of natural processes such as wind blow as well as the maintenance of paths, rides and glades and management such as thinning. These areas, which receive good amounts of sunlight, will support a diverse flora and invertebrate fauna.

Within the constraints of management for public safety there will be a wide range of dead wood including standing trunks, crowns or dead branches on trees and fallen whole trees, branches and twigs. This will support a variety of mammal, bird, invertebrate and fungal species.

Invasive, alien species such as Rhododendron and will not be present at more than 5% of the total cover of the woodland with the aim of complete eradication by 2017.

The woodland areas will have a good network of permissive and public routes that are accessible by the public.

Some of the wet woodland on Wisley Common supports a significant invertebrate assemblage. It is important to maintain a high water table for some of these species and, where possible, reverse the effects of artificial drainage previously undertaken for forestry purposes. Many invertebrate species (such as Wood cricket) on Wisley are especially reliant on the ecotone between open heath and wet woodland;

Factors and Limits

Succession

Without management woodlands can become very dark as the canopy closes and the shrub layer is shaded. Plants that cannot tolerate shade are lost along with invertebrates that live on them.
Conversely a positive benefit of succession in woodlands is the development of mature woodland micro-habitats for fungi, lower plants and dead wood invertebrates.

Invasive species

Species such as Turkey Oak, *Rhododendron ponticum*, Cherry Laurel and Himalayan Balsam will, if unchecked, threaten the establishment and distribution of native woodland species.

Attributes and Limits

Extent

- No loss of extent of landscape woodland with specimen trees, wet woodland and ancient semi natural of stands.
- Successional woodland area to be reduced and maintained at 5ha through restoration to heath.

Structure and natural processes

- Understorey (2-5m) present over at least 20% of total stand area.
- Canopy cover present over 30-90% of stand area.
- Minimum 3 fallen lying trees >20cm diameter per ha and 4 trees per ha allowed to die standing where compatible with occupiers liability.

Composition

- At least 95% of cover in any one layer of site native (or acceptable naturalised) species. Damage/death of woodland species through browsing/grazing <10% by number or area over life of plan.

Management Rationale

Removal of successional woodland and restoration to heathland will be undertaken as outlined above. All further heathland restoration beyond the present licenced areas will be subject to the necessary consents.

In areas of coppice and wet woodland invasive species will be removed and glades maintained in key areas, particularly near to the heathland. Footpaths will be maintained throughout the woodland areas and access encouraged. Standing and fallen dead wood will be left in situ and habitat piles will be created from some of the wood felled as part of management work.

Management List

Undertake woodland management using a variety of techniques

Manage habitat

- **Conservation coppicing**

Maintain a coppice with standards management system in Hunts Copse.
Coppice hazel and birch with oak standards.
Prioritise management for wildlife, landscape and recreation.

- **Remove undesirable species**

Mainly rhododendron, includes spraying off regrowth.
Control Himalayan Balsam and pirri-pirri.
Remove Turkey Oak

- **Manage dead wood**

During woodland operations ensure that all forms of dead wood are retained.
Retain all standing dead wood where safety is not compromised.

Monitor progress towards achieving the stated objective.

- Aerial photography and fixed point photography as detailed in Feature 1
- Monitor status of significant landscape tree specimens such as *Sequoiadendron giganteum* and *Sequoia sempervirens*.

Feature 3 - Grassland

Objective 3

(Non SSSI) Grassland areas of Snakes Field and Surrey Cottage Meadows will be maintained and species diversity of existing enhanced.

Rank species including thistles, docks, nettle, bramble, great willowherb and hedge bindweed will not be more than occasional across the grassland areas. The grassland will have a good structural diversity including a variety of vegetation heights. It will support a diversity of plant species which in turn will support a range of invertebrates, mammals, birds and reptiles. In particular the populations of Yellow Rattle and Skylark will be maintained and enhanced.

Factors and Limits

Succession

As with other open habitats grassland areas left unmanaged will succeed to scrub and woodland.

Undesirable species

Without appropriate grassland management species such as ragwort and dock can become over-dominant in the sward to the detriment of a diversity of native species.

Attributes and Limits

- **Extent**

No significant loss of feature

- **Indicators**

Yellow Rattle

The continuing presence of (sown) Yellow Rattle should be monitored. Yellow rattle's presence as a semi-parasite within the sward can help keep vigorous grass species in check.

Skylark

The presence of skylark is an indicator of continued appropriate management and its presence should be monitored between April and July.

Management Rationale

In order to meet the above objective the grassland areas will be hay cut/forage harvested and aftermath grazed.

Management List

Maintain open grassland area

Manage habitat

- **Mowing by forage harvester**
- **Controlled aftermath grazing using cattle**
- **Encourage desirable species**
  - Through seeding or other means as required.
- **Undesirable species control**
  - Removal of ragwort to allow hay production.
  - Control of dock and thistle.

Feature 4 - Open Water

Objective 4

The site will continue to support a network of ponds, ditches and streams including

- Boldermere
- Teal Pond
- Pond Farm Pond
- Pucks Pond.

Open water components will be managed to maintain and enhance aquatic and marginal habitats.

Ponds will not be shaded by more than 50% of their area so that enough sunlight reaches the water surface to allow vegetation to flourish. There will be a good balance between floating, emergent and marginal vegetation with non-native invasive plant species controlled.

Muddy margins will be maintained in strategic areas to encourage a number of unusual plant species which have been recorded in the past. Pollution will be prevented from entering the water bodies where possible and there will not be an excessive build up of algae.

A flourishing population of invertebrates such as dragonflies
will indicate the general wellbeing of the waterbodies and be a measure of the success of management.

Factors and Limits

Shading by surrounding trees and shrubs
Excessive shading will limit the extent and diversity of vegetation within and adjacent of the waterbodies.

Overdominance of particular native species
Sometimes in aquatic environments, one species can become dominant to the detriment of other species.
Upper limit: no one species should be dominant in open water features.

Presence of non-native species
Open aquatic habitats are particularly vulnerable to invasive species such as *Crassula helmsii* which can spread rapidly taking over the environment to the detriment of native species.

Non native fish species such as carp have a detrimental effect on open water habitats through an increase in turbidity and loss of aquatic plants and associated invertebrate fauna.

Build up of sediment
With no management intervention natural succession would lead to a build-up of sediment and eventually an entirely terrestrial habitat.

Pollution from neighbouring land use
Run-off from adjacent roads and agriculturally improved farmland can have a detrimental effect on water quality in open water features.

Uncontrolled public access
Factors such as excessive duck feeding, unauthorised fishing and dogs entering open water habitats can contribute to increased turbidity, eutrophication and disturbance to wildlife.

Attributes and Limits

- **Extent of open water**

Current extent of open water should be maintained as shown in NVC map.

- **Diversity of Odonata fauna**

The diversity of dragonfly and damselfly fauna is a good indicator of the health of the water bodies.
Specified limit: The diversity of dragonflies and damselflies will be maintained at a minimum of 26 species as recorded in 2007.

- **Aquatic vegetation**

The status of marginal aquatic plants such as Shoreweed, Marsh St. John's Wort, Lesser Water-plantain and Pillwort at Boldermere and Bog Pimpernel at Puck's Pond serve as additional indicators of habitat quality and should be subject to periodic monitoring.

Management Rationale

Shading will be monitored and surrounding trees managed as necessary to maintain around 50% of the water body unshaded.*
The balance of vegetation within the water bodies will be monitored so that no one species becomes dominant and to ensure that no non-native invasive species is allowed to become established. Water bodies will be de-silted if the build-up of sediment becomes a problem, subject to funding and gaining the necessary consents. Muddy margins will be maintained in strategic areas.

Botanical and aquatic invertebrate monitoring will be used to determine habitat health.

As well as undertaking measures to control invasive plants a strict "*Crassula* hygiene" policy will be implemented. This will ensure that measures are taken to avoid inadvertently spreading *Crassula* through management or recreational activities.

*Some shading by overhanging trees and shrubs will always be retained as habitat for Somatachlora metallica Brilliant Emerald Dragonfly.

Management List

Manage water bodies, including Boldermere, to improve aquatic and surrounding habitat

- **Clearing surrounding vegetation**

Cut back surrounding trees to allow increased light levels on the water.

- **Undesirable species control**

Remove, contain and monitor undesirable species such as *Crassula helmsii*. Agree methodology with Natural England and Environment Agency particularly with regard to herbicide use.

- **Remove undesirable fauna**

Remove non native fish species by specialist contractor.

- **Manage open water, by other activities for common terns**

Provide rafts for common terns and monitor use.

- **Marginal vegetation - Boldermere**

Create reed bed on eastern side of Boldermere. Ongoing management will be carried out once reed bed is established.

- **Pond enhancement**

Improve aquatic vegetation by removal of surrounding tree canopy and clearance of invasive willow.

- **Encourage specific desirable species**

Carry out management work to promote species of interest such as pillwort, bog pimpernel and shoreweed. Includes clearance of scrub and trees around Boldermere and Pucks Pond. Scrape to produce suitable draw down areas.

- **Pond / wetland restoration**

Repair sluices on Teal Pond

Remove willow stumps and silt build up

- **Create ephemeral water bodies**

Monitor to assess progress towards objective

- **Monitor build-up of sediment**

The build-up of sediment within the water bodies on the site should be monitored on an annual basis. If water flow is impeded or the amount of open water is diminishing, de-silting may be required.

- **Monitor balance of pond vegetation**

It is important to monitor the balance of pond vegetation to ensure that one plant species does not become dominant within the aquatic environment limiting the diversity of other species and restricting the amount of open water available.

If the annual monitoring check reveals that one or more species is dominating the aquatic habitat to the detriment of other species, management will be required.

- **Monitor presence of non-native invasive species**

A regular check should be carried out to gauge the effectiveness of agreed control of invasive species such as *Crassula helmsii.*

- **Monitor shading of ditches and ponds**

Less than 50% of the water body should be in shade. This should be monitored annually by a visual check.

- **Monitor diversity of Odonata**

The diversity of dragonfly and damselfly fauna is a good indicator of the health of the water bodies. This should be monitored annually to ensure that the diversity of dragonflies and damselflies does not decline significantly when comparing surveys over a number of years.

Feature 5 - Archaeology

Objective 5

Maintain, preserve and protect features of archaeological and historical interest as indicated in the map in Figure 5 and described in 3.2.3.1.

Factors and Limits

The affects of the following to should be subject to regular monitoring:

Damage by animal excavations
Animals such as rabbits, foxes and badgers can damage archaeological features through their digging activities. Grazing livestock also have the potential to damage archaeological features but can be managed to prevent this.

Damage by plants
Scrub and bracken can cause damage to archaeological features via root disturbance.

Damage caused during management operations
If not undertaken with care, management operations on the site may damage archaeological features. Operations should be consented by English Heritage/County Archaeologist as appropriate if any archaeological or historical features could be affected.

Illegal excavations and metal detectors
Illegal excavations could cause significant damage to archaeological features. This has occurred on a minor scale in the past.

Attributes and Limits

- **Physical presence, condition and dimensions**

The presence, condition and dimensions of the archaeological features on the site will be monitored on a regular basis to ensure that they are not declining. Management action will be undertaken where necessary.

Management Rationale
All archaeological features will be monitored. Other management operations will not cause ground disturbance to archaeological features. Eroded areas should be allowed to re-vegetate and then be maintained with permanent grass/ericoid cover.

All site management works should pay due regard to existing and possible archaeological and historical features reporting such new discoveries as

might be made to the County Historic Environment Record and undertaking such mitigation as may be necessary and appropriate should invasive works be necessary under the guidance of the appropriate local, district and national heritage authorities.

Management List

Ensure the preservation of the archaeological interest on the site

- **Monitor physical condition of archaeological features**

The archaeological features will be monitored on a regular basis to determine the extent of any damage from scrub encroachment, animal excavations or other factors. Action will be taken where necessary to maintain the features in favourable condition.

Restoration of the Samuelson mausoleum

- **Restoration of mausoleum**

Options for the restoration of the mausoleum should be identified in consultation with the appropriate authorities and funding sought to implement them.

Feature 6 - Access, Interpretation and Recreation

Description

Wisley and Ockham Commons are a significant recreational resource for local people. The encouragement and management of access and recreation is an essential part of SWT's management of the Commons and a key component of SWT's contractual obligations to Surrey County Council.

The current use of the site for access and recreation and provision of interpretation can be found in Sections 3.3.1; 3.3.2; and 3.3.3 of this plan.

Objective 6

Public access will be provided in accordance with statutory duties and the contract with Surrey County Council and without compromising the biodiversity of the site.

All paths, statutory rights of way and car parks will be maintained to a high standard and in accordance with the agreed Service Delivery Specification and Visitor Services Standards. This includes ensuring the health and safety of the public through adequate maintenance of paths and control of risk. Management of these aspects is guided by SWT's risk assessments and policies and practice notes - see Appendix 2.
Any increase in visitor numbers to the commons will be managed in such a way as to avoid detrimental impacts on wildlife.

Interpretation will be provided in order to promote the enjoyment and understanding of the site.

An inventory of Visitor Furniture for the site is shown in Figure 6.

Management Rationale

Paths and rights of way and car parks will be monitored weekly and necessary work undertaken in order to maintain them to a high standard.

Access maps and site leaflets will be updated or produced where necessary to show areas of wildlife interest on the sites as well as paths and rights of way.

Regular contact will be maintained with local community groups to gather the views of stakeholders and pick up any problems with access at an early stage.

At least two guided walks will be undertaken across the site each year in accordance with the contract with SCC. Talks will be provided as required to local groups and organisations. Notice boards will be kept up to date with Ranger Notes updated four times a year along with a list of guided walks and events.

Ongoing delivery of these aspects will be guided by the agreed Visitor Services Standards. SCC's corporate identity will be clearly represented as specified in these standards.

Management List

Maintain publicised access routes

- **Liaise with relevant authorities**

Liaise with SCC Rights Of Way department as necessary to ensure the maintenance of public ROW.
Liaise with Natural England, Highways Agency and the Police.

- **Provide/maintain tracks**

Paths will be walked once a week to ensure that the surfaces, waymarking, information boards and furniture are in good condition. Repairs will be undertaken as necessary. Work such as strimming during the spring and summer months will be taken as necessary to keep the paths open.

Respond to requests for recreational activities, organised events and commercial activities as appropriate

- **Liaise with local community/groups**

The Wisley and Ockham Liaison Group will continue to be an important vehicle for engaging stakeholders in the management of the Commons. In addition, liaison will take place through meetings with the following groups with the intention to allow dissemination of information and to allow communities to be involved in the management of the commons:

- Ockham Parish Council
- Royal Horticultural Society
- Wisley & Ockham Liaison Group
- Safer Guildford Partnership

SWT's Northern Area newsletter will be produced once a year and will also provide information for local communities and stakeholders on work that has taken place and is planned. Feedback from stakeholders will be invited and positive messages towards use of the site by visitors will be promoted.

Monitor visitor use at the site

- **In partnership with Natural England carry out visitor monitoring relating to management of the SPA**

- **Protect site/species by patrol - check site security**

Regularly patrol site and take any action required. Undertake boundary inspections as defined by contract with SCC. Report any encroachments to SCC. Inspect all car park areas, main paths, picnic areas, self guided trails and main road corridors annually. Take appropriate action to comply with Health and Safety requirements.

Maintain car parks and picnic areas. General estate fabric maintenance

- **Car Park Repairs and security**

Carry out minor surface repairs as required. Maintain security of car parking areas. Ensure all height barriers or car park gates are in a safe and usable condition so that the site is secure and unauthorised vehicles are unable to gain access.

- **Recreational mowing**

Mow picnic area at Semaphore Tower as shown on map twice a year.

- **Estate management**

General estate management tasks will be carried out as required in order to maintain the fabric of the estate. This will include the maintenance of all furniture and waymarkers

- **Remove rubbish - Flytipping**

Remove fly tipped waste and regularly litter pick.

- **Dangerous trees**

Identify and put into action steps to remove or make safe dangerous trees.

Provide seasonal interpretative material and, where appropriate, material to explain the objectives of site management.

- **Illustrated talks**

Talks will be provided as requested by local groups or organisations.

- **Guided walks**

At least two guided walks will be lead across the commons each year as stipulated by the SCC service delivery contract. In addition, the ranger will carry out guided walks when requested by local groups and organisations.

- **Noticeboards**

Up to date information will be maintained on the information boards including ranger notes four times a year and a list of guided walks and events. All fly posters and advertisements will be regularly removed from the boards.

Feature 7 - Funding

Description

In order to achieve the greatest gains for wildlife across the site it is important to make the most of outside funding opportunities whether through agri-environment schemes or fundraising from other sources.

Objective 7

Outside funding sources will be pursued and utilised where possible and where appropriate to other stated management objectives.

Management List

- **Grant applications - utilise grant schemes and identify future funding opportunities**

Additions to the existing agri-environment schemes covering the site will be pursued as appropriate.

The ranger will liaise on a regular basis with the SWT fundraising department in order to identify new funding opportunities and submit applications when a specific need or opportunity arises.

Feature 8 - Legal and other obligations

Description
The following legislation is relevant to the sites and will be complied with:

- Health and Safety at Work Act 1974
- Occupiers Liability Act 1984
- Commons Registration Act 1965
- Commons Act 2006
- Wildlife & Countryside Act 1981(as amended)
- Countryside & Rights of Way Act 2000
- EU Birds Directive 1979
- Protection of Badgers Act 1992
- The Conservation (Natural Habitats, C.) (Amendment) Regulations 2007
- Town and Country Planning Act 1990
- Highways Act 1980

In addition it is aimed that all work will have regard to national and local Biodiversity Action Plans.

All management aspect of the site are subject to a Service Delivery Specification within the contract between SCC and SWT

Objective 8
All legal and other obligations will be met

Management List

Comply with legal and other obligations

- **Liaise with relevant authorities**

Regular liaison will take place with the following organisations to ensure that all legal and other obligations are met.

  - Surrey County Council
  - Natural England
  - Environment Agency
  - Guildford Borough Council
  - Elmbridge Borough Council

- **Fire safety**

Prepare and keep up to date fire safety plans in association with Surrey Fire and Rescue. Liaise with Fire brigade during times of fire risk.

- **Site risk assessment**

A site risk assessment will be carried out and reviewed as necessary.

- **Liaise with other Emergency Services**

Liaise with ambulance service as required and particularly with regard to horse riding accidents.

- **Tree safety assessments**

High risk “zone 1” areas will be inspected in accordance with the Service Delivery Specification. SWT has a duty of care to take reasonable steps to avoid acts or omissions which it can reasonably forsee and would be likely to cause harm. If a tree has been identified as a hazard remedial works will be undertaken by the appropriate competent persons to mitigate any risk posed.

- **Identify/notify SCC of encroachments**

SWT will inform Surrey County Council of any new encroachments or trespass. In accordance with the SCC Service Delivery Specification, the boundaries of the site will be inspected. If any encroachments are found, as much information as possible will be provided to SCC including the address, details of encroachment and photographs where possible.

Monitor & Review

The management objectives and projects within this plan will be monitored and reviewed on a regular basis in order to ensure that they are realistic and up to date and to ensure that the targets are being met.

To achieve this objective, the work programme will be reviewed annually. In addition the objectives within the management plan will be reviewed in 5 years time and the management plan will be reviewed in its entirety in 2019.

It should be noted that some actions are dependent on funding and resources and permissions/consents being granted.

A strategy for biological monitoring on the site can be found in Appendix 9.

Management Plan Maps and Appendices
Wisley & Ockham

Maps

Figure 1 Site Boundary Map
Figure 2 Map of services
Figure 3 Management Compartments
Figure 4 NVC 2005 Map.
Figure 5 Archaeological Interest Features.
Figure 6 Visitor Furniture and Access
Figure 7 Map of car parks and main visitor pressure zones
Figure 8 Vegetation comparison 1948-2011.
Figure 9 Clearfell Forestry Map 2006-2011.
Figure 10 Thinning Forestry Map 2007-2012.
Figure 11 Tree Safety

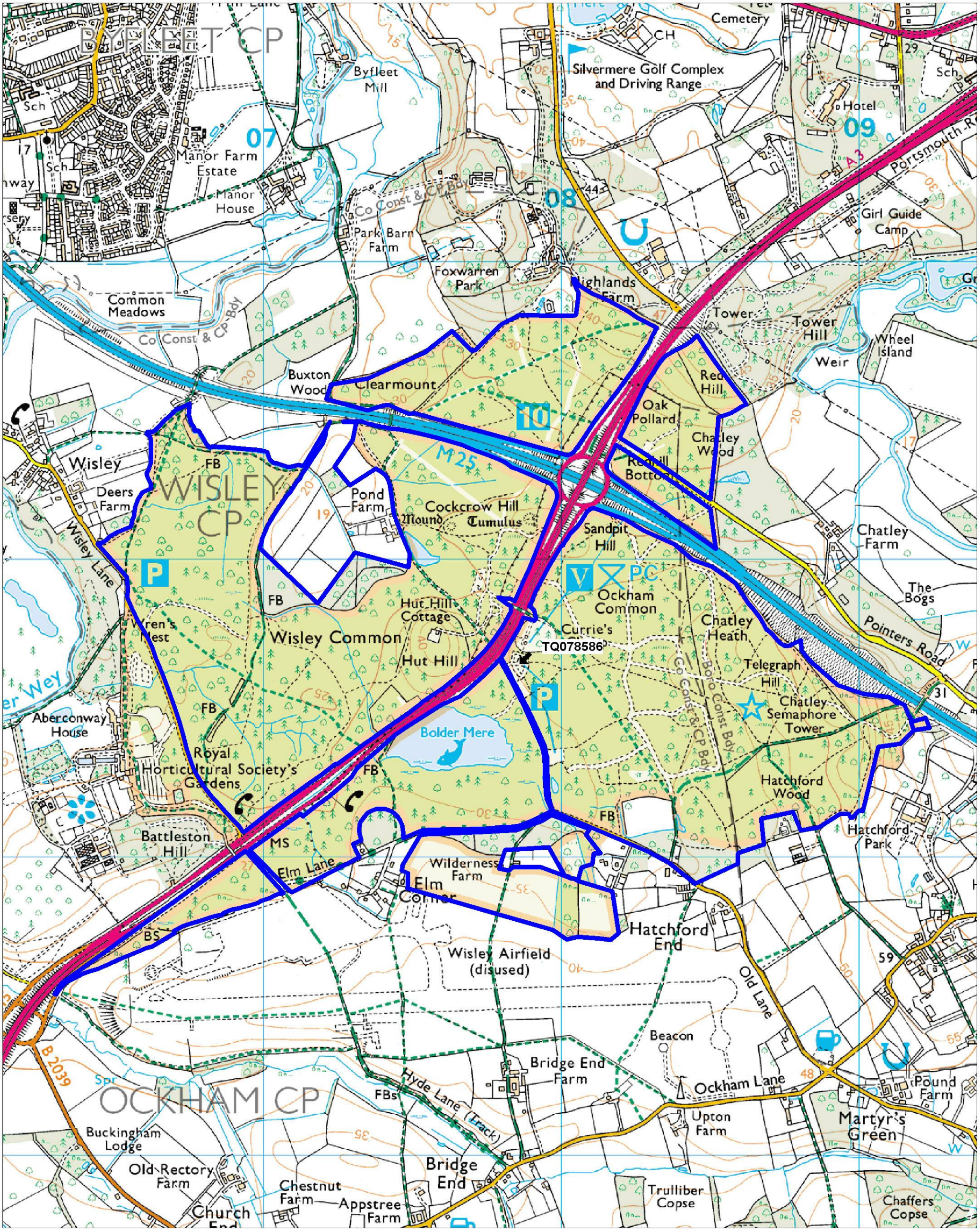
Work Programme

Appendices

Appendix 1 SWT Organisational Chart.
Appendix 2 List of SWT Policies and Practice Notes
Appendix 3 SCC Byelaws
Appendix 4 SSSI Citation
Appendix 5 SSSI Conservation Objectives
Appendix 6 HLS Prescriptions
Appendix 7 Risk Assessment
Appendix 8 Fire Plan
Appendix 9 Monitoring Strategy

Figure 1:

Wisley & Ockham Commons Boundary



Key

Site Boundary

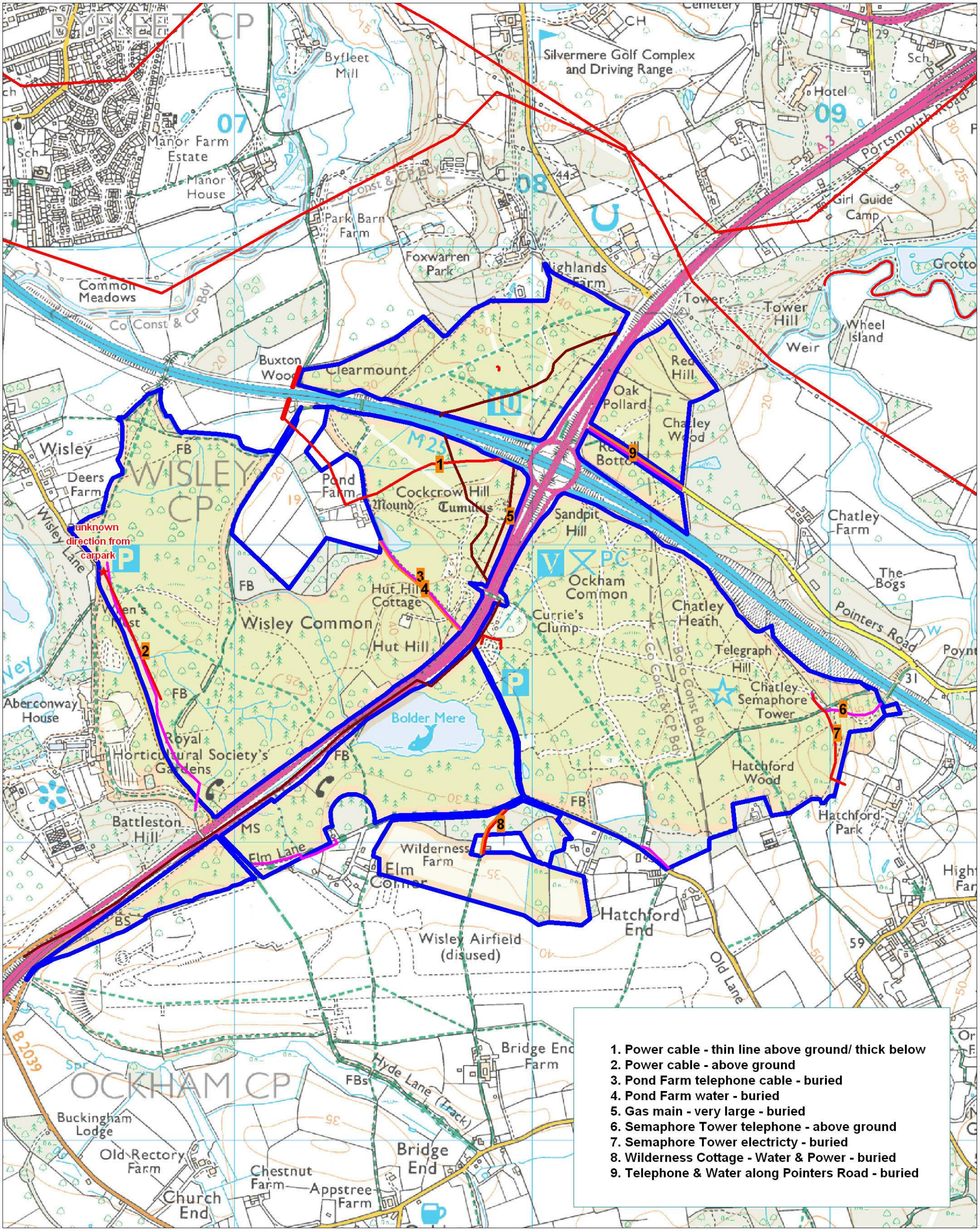
Scale: 1: 12,000

N

Prepared by: Surrey Biodiversity Information Centre
Date: 08/11/2007
Revision: 06/04/2009
File Ref: W&O

Figure 2:

Wisley & Ockham Commons Services



Key

- Site Boundary
- Electricity line
- Telephone line
- Water pipe
- Gas main

Scale: 1: 12,000

N

Prepared by: Surrey Biological Information Centre
Date: 07/12/2007
Revision:
File Ref: W&O/App5

Figure 3:
Management Compartments

SURREY wildlife TRUST

Scale: 1: 10,000

Key

- Site Boundary
- Compartment Boundaries

WISLEY CP

Prepared by: Surrey Biodiversity Information Centre
Date: 24/09/2007
Revision: 13/07/2009
File Ref:

Figure 4:

Wisley & Ockham Commons - NVC Survey 2005

SURREY wildlife TRUST

Scale: 1:10,000

Key

Site Boundary

Vegetation

Alder-Nettle Woodland	(1)
Bare	(3)
Bare/Ephemeral Moss Community	(4)
Bog Woodland	(3)
Bracken	(22)
Bracken Woodland	(38)
Bramble Woodland	(9)
Burnt	(1)
Carr	(1)
Dry Heath	(11)
Flushed Alderwood	(1)
Hard	(6)
Heathy Woodland	(5)
Herb-poor Permanent Pasture	(1)
Humid Heath	(22)
Molinia Heath	(14)
Molinia Mire	(4)
Molinia Wet Heath	(2)
Open Water	(2)
Parched Acid Grassland	(1)
Submerged Starwort Community	(1)
Wet Heath	(1)
Wet Willow Woodland	(2)

N

Prepared by: Surrey Biodiversity Information Centre
Date: 08/11/2007
Revision: 13/07/2009
File Ref:

Figure 5:

Wisley & Ockham Commons - Archaeological Interest Features

Possible location of iron mills on outfall channels from Wisley Pond. The dam of this pond survives

Bowl barrow. Bronze Age burial mound

The site of the former Wisley Pond. It was possibly associated with Boldermere, both ponds being artificial & possibly created to provide water power.y

Possible location of iron mills on outfall channels from Wisley Pond. The dam of this pond survives

Possible bowl barrow

Red Hill hengiform monument. Circular enclosure probably Late Neolithic

Bowl barrow, Cockrow Hill. Bronze Age burial mound

Possible bowl barrow. Curries Clump

Possible tree clump. May date from 18th or 19th centuries

Chatley Heath Semaphore Tower. Grade II * listed building

Circular earth ring and parish boundary

Mesolithic material

Scale: 1:15,000

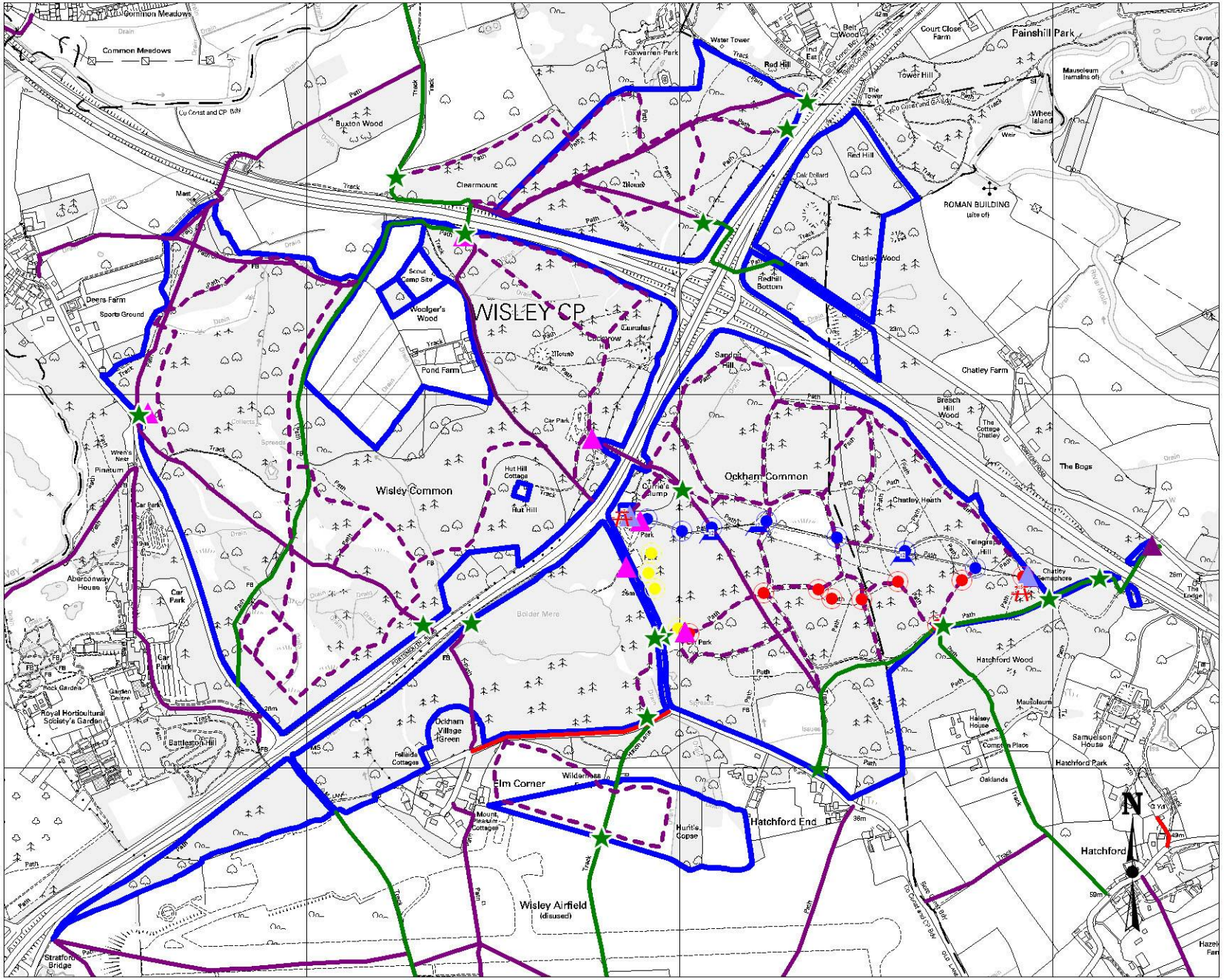
Key

Site Boundary

N

Prepared by: Surrey Biodiversity Information Centre
Date: 07/09/2007
Revision:
File Ref: W&O/Arch

Figure 6
Visitor Furniture and Access



SURREY wildlife TRUST

Scale: 1:15000

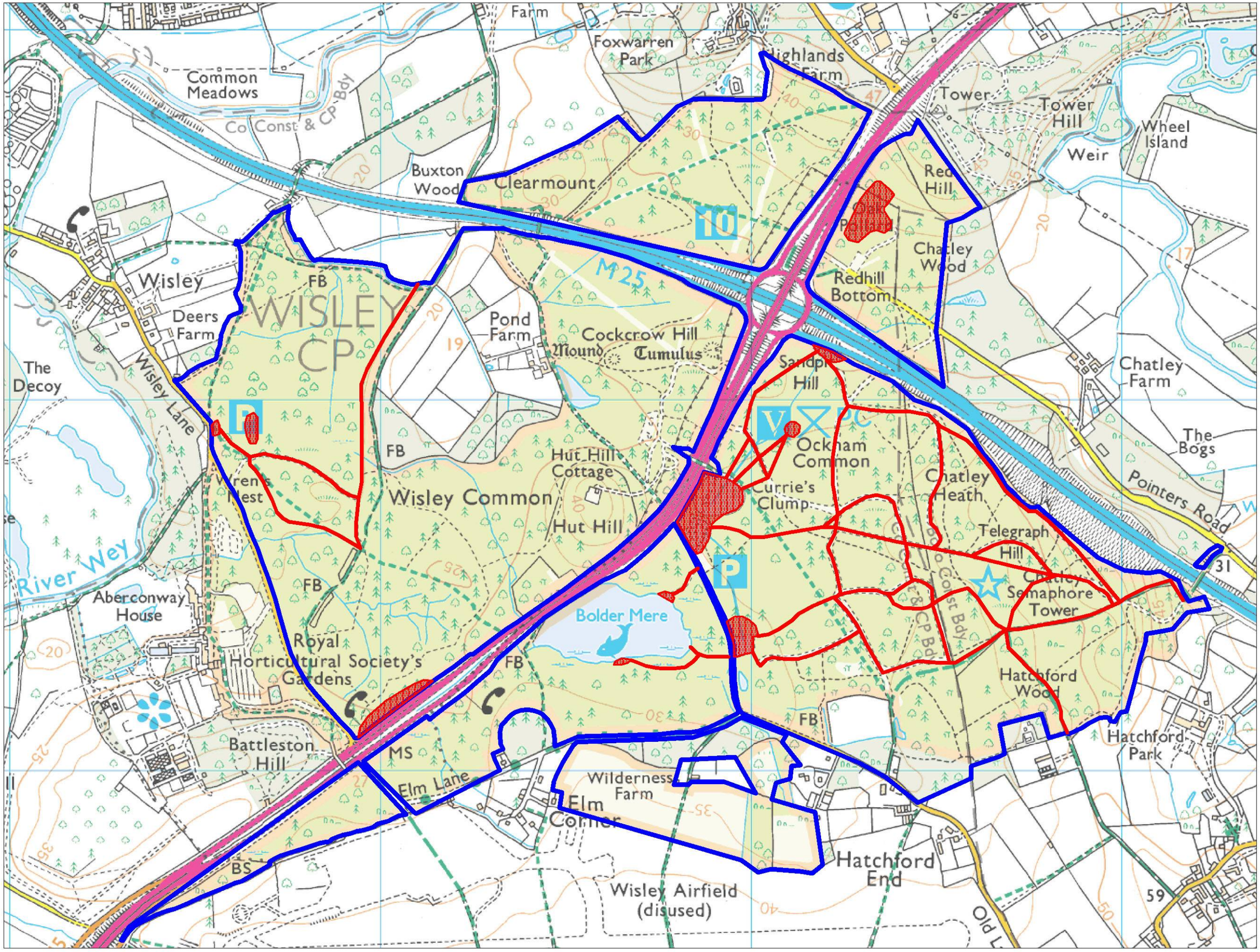
Key

- Site Boundary
- Byway
- Footpath
- Bridleway
- Permissive horseride
- Bench
- Interpretation board
- Interpretation panel
- Information board
- Picnic table
- SGT posts - blue route
- SGT posts - red route
- SGT posts - carpark link
- Finger posts

Prepared by: Surrey Biodiversity Information Centre
Date: 01/10/2007
Revision: 16/02/2009
File Ref:

Figure 7:

Wisley & Ockham Commons - Car Parks & Greatest Visitor Pressures



Scale: 1: 10,000

Key

- Site Boundary
- Areas of greatest visitor pressure
- Routes of greatest visitor pressure

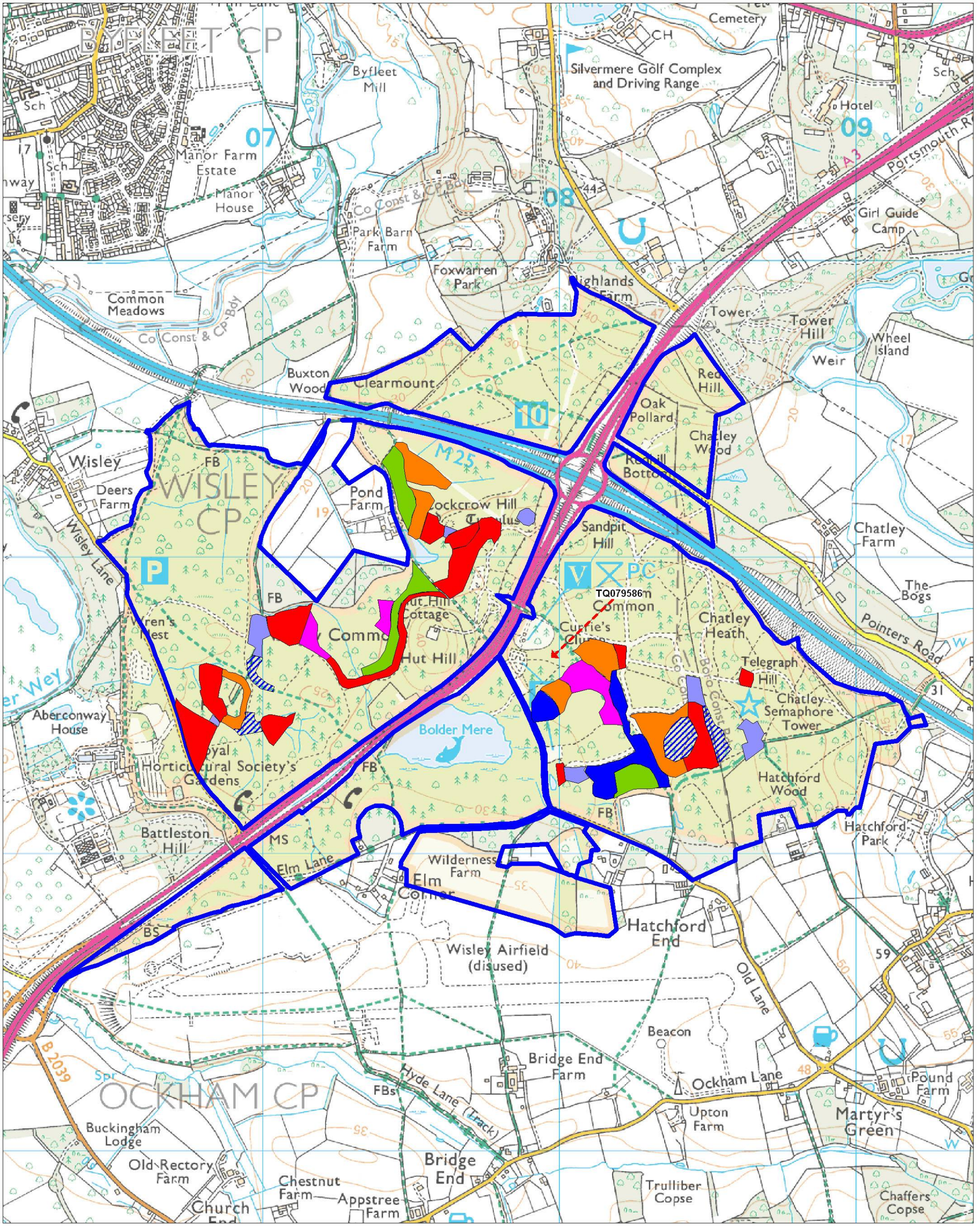
Prepared by: Surrey Biodiversity Information Centre
Date: 10/12/2007
Revision:
File Ref:W&O/App26

Figure 8:

Wisley & Ockham Commons - Vegetation comparison between 1948 and 2011

Figure 9:

Wisley & Ockham Commons - Clearfell Forestry Map 2006-2011



Key

- Site Boundary
- Fell Year 1
- Fell Year 2
- Fell Year 3
- Fell Year 4
- Fell Year 5
- Recent Clearance
- Recent Selective Felling

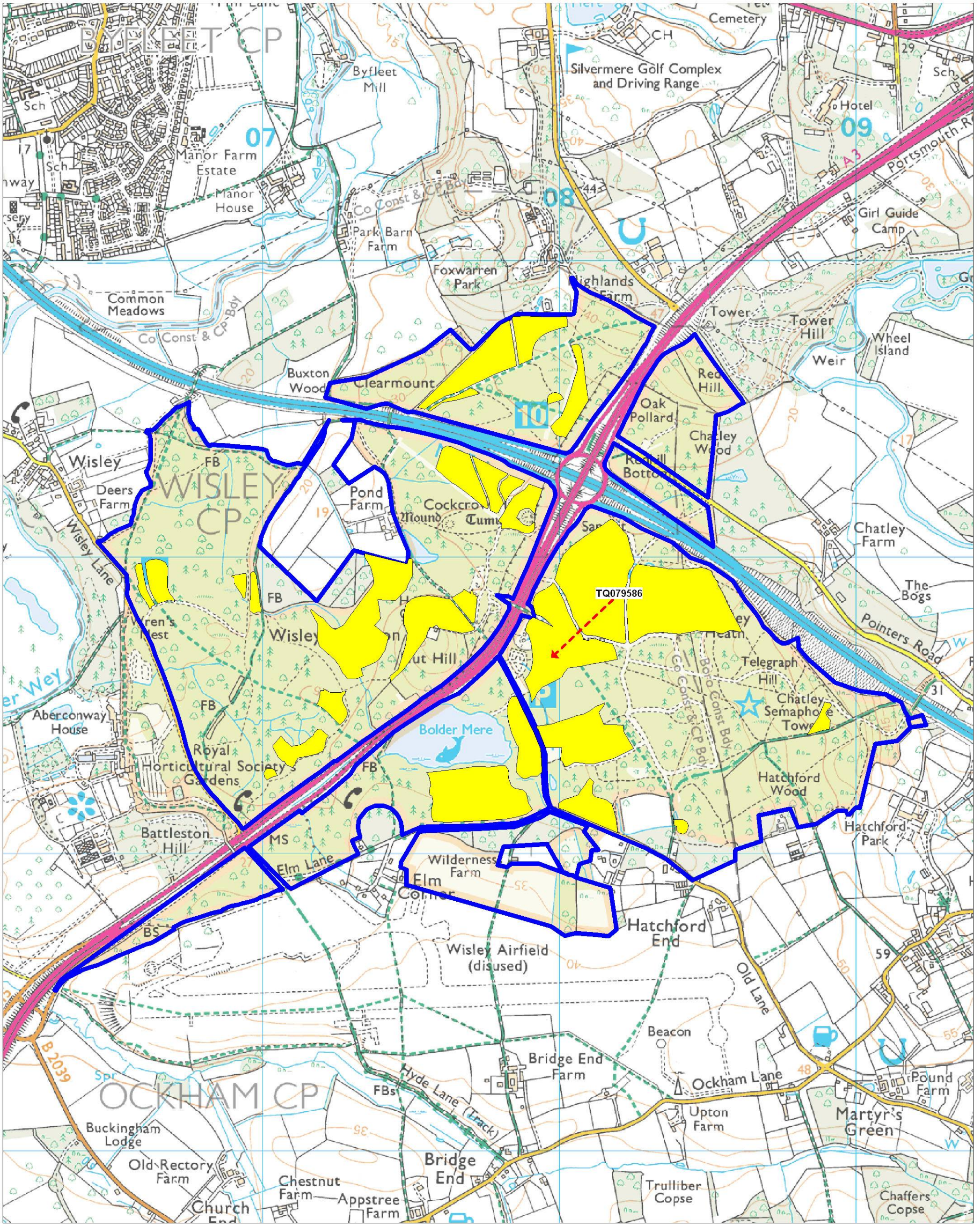
Scale: 1: 12,000

N

Prepared by: Surrey Biodiversity Information Centre
Date: 08/11/2007
Revision:
File Ref: W&O

Figure 10:

Wisley & Ockham Commons - Thinning Forestry Map 2007-2012



Key

- Site Boundary
- Area to be thinned

Scale: 1: 12,000

N

Prepared by: Surrey Biodiversity Information Centre
Date: 08/11/2007
Revision:
File Ref: W&O

Figure 11:
Wisley & Ockham Commons - Tree Safety

Scale: 1: 12000

Key

- Site Boundary
- High Risk
- Medium Risk

N

Prepared by: Surrey Biodiversity Information Centre
Date: 27/11/2008
Revision: 13/07/2009
File Ref:

Provisional work programme for Wisley & Ockham

CMS Code	Job Title	Description	Staff Member	Timing	Location
Heathland					
MH30 01	Grazing	Inspect and repair grazing infrastructure on Wisley and layback land.	Ranger	Once a week in grazing period.	3, 5, 17a, 17c, 17d
MG00 01	Manage Cattle	Visually check livestock.	Ranger/Volunteers/Northern Area Team	3 times a week when stock are on site.	3, 4, 5, 17a, 17c, 17d
MH31 01	Scrub Control	Manage scrub by any form of clearance except chemical treatment.	Ranger/ Volunteers/ Countryside Team	Mid-September to mid-March	1a, 1b, 1c, 1d, 3a, 3b, 3c, 3d, 3f, 5a, 5b, 5c, 5d, 5e, 5f, 5g, 5h, 5i, 6, 7b, 7d, 9a, 9b, 9c, 9d, 9g, 9k, 10a, 10b, 10c, 10d, 10e, 10f, 10g
MH31 03	Chemical Treatment	Manage scrub by chemical treatment, spraying or stump treatment.	Ranger/ Countryside Team/ Contractor	Mid-May to August for foliage treatment, October to March for stumps.	As MH31 01
MH32 01	Conservation Mowing	Manage heather stands by mowing with tractor, Alan scythe, hedge cutter	Ranger/ Countryside Team/ Contractor	For seed mid-October to mid-December. Mosaic creation October to March.	As MH31 01
MS50 01	Bare ground creation	Create bare ground areas and exposed root plates for heathland species.	Ranger/ Countryside Team	Throughout year.	As MH31 01
	Gorse management	Manage gorse stands by cutting or burning to produce an age structure.	Ranger/ Volunteers/ Countryside Team	September to March	As MH31 01
	Encourage desirable species	Investigate the possibility of species reintroduction based on sound ecological principles.	Ranger	Throughout year.	As MH31 01

	Create standing deadwood	Ringbark trees on open heath where safe to do so to stop seed rain and create deadwood habitat.		Throughout year.	As MH31 01
MH36 01	Bracken/Rhododendron Treatment	Manage heath by controlling bracken and undesirable species.	Ranger/ Countryside Team/ Contractor	Bracken cutting mid-June to mid August. Bracken spraying mid-July to mid-August. Rhododendron throughout the year.	As MH31 01
ME00 01	HLS Management	General HLS requirement work. Includes investigation into restoration of wetland areas on Wisley.	Ranger	Throughout year.	As MH31 01
MH31 02	Woodland Clearance for Heathland Restoration	Clear trees or scrub for heathland restoration.	Ranger/ Countryside Team/ Contractor	Inspect 3 times a week whilst contractors are working. Programme to progress as per licence. Review felling programme in 2009. Mid-September to mid-March.	3a, 3b, 3d, 5c, 9b, 9c, 9d
MH39 02	Heathland Restoration	Scraping	Countryside Team/ Contractor	Inspect when areas are cleared.	As MH31 02
		Stump grinding	Countryside Team/ Contractor	Inspect when areas are cleared.	3a, 3b, 3d, 5c, 9b, 9c, 9d, 10a, 10c
ML80 01	Liaise with others	Liaise with specialists to maintain best practise for management of rare species. Include HCT liaison about Rhododendron removal.	Ranger	Throughout year.	Whole site
Open Water					
MH69 01	Undesirable species control	Remove, contain and monitor undesirable species such as Crassula helmsii.	Ranger/ Countryside Team/ Contractor	As required.	4, 6, 8, 9h
MH69 02	Remove undesirable fauna	Remove introduced fish species.	Ranger/ Contractor	As required.	8

MH65 01	Encourage desirable species	Carry out management work to promote species of interest such as Pillwort, Bog Pimpernel and Shoreweed. Includes clearance of scrub and trees around Boldermere and Puck's Pond. Scrape to produce suitable draw down areas.	Ranger/ Countryside Team	Winter/Spring	4, 6, 8, 9h
MH69 04	Manage reed beds	Carry out works to diversify or create new reed beds.	Ranger/ Contractor	Winter.	8, 9h
MH69 06	Pond improvement	Improve aquatic vegetation by removal of surrounding tree canopy and clear invassive willow.	Ranger/ Contractor	Winter.	4, 6, 8, 9i,9h
	Pond improvement and wetland restoration	Repair sluices on Teal Pond	Ranger/ Countryside Team/ Contractor	Spring/Summer	
	Pond restoration	Removal of willow stumps and silt build up	Ranger/ Countryside Team/ Contractor	Spring/Summer	5e, 5f, 5g, 6
	Wetland restoration	Fill in ditches to restore/improve the hydrology of the area	Ranger/ Countryside Team/ Contractor	Spring/Summer	
		Create ephemeral water bodies	Ranger/ Countryside Team/ Contractor	Spring/Summer	3f, 5m
Woodland					
MH00 01	Conservation Coppicing	Manage woodland or scrub by coppicing.	Ranger	Winter.	12, 17b, 18b

MH02 01	Thinning	Manage woodland by thinning.	Ranger/ Contractor	Winter. As set out in licence.	1c, 1d, 3b, 3e, 3f, 5a, 5c, 5f, 5j, 7b, 7d, 7e, 9e, 9f, 9g, 9h, 9k, 10j, 10k, 10i
MH02 02	Felling	Manage woodland by felling.	Ranger/ Contractor		
MH07 01	Remove undesirable species	Remove Turkey Oak, Rhododendron, Laurel, Himalayan Balsam, Japanese Knotweed, Buddleia and Pirri Pirri Bur by any technique.	Ranger/ Countryside Team/ Contractor	As required.	Whole site
	Encourage desirable species	Select management techniques for rare woodland species; Wild Service Trees, Bird's Nest Orchids and historic oaks.	Ranger	Throughout year.	1c, 1d, 7c, 17b
MH08 01	Manage deadwood	Manage woodland by creating, managing or removing deadwood.	Ranger/ Countryside Team	Winter.	16 and MH02 01 areas
MH31 03	Chemical Treatment	Manage trees or scrub in woodland by chemical treatment.	Ranger/ Countryside Team	Mid-May to August for foliage treatment, October to March for stumps.	
ME22 01	Main road tree clearance	Produce programme to remove trees that may fall and hit M25/A3.4m safety zone around perimeter	Ranger/ Contractor	Throughout year.	1c, 1e, 3e, 3f, 5k, 5l, 5m, 7a, 7b, 7e, 9h, 9j, 9k, 10j, 17a, 17b, 18a, 18b
Grassland					
MH12 02	Forage harvesting/hay making/ graze	Forage harvest/hay cutting Snake's Field, Barnish meadow and Surrey Cottage meadows.	Countryside Team	July August once wildflower seeds have set.winter graze	17a, 17c, 17d
	Undesirable species control	Control Ragwort and Docks by any means.	Ranger	In growing period.	As MH12 02
	Encourage desirable species	Introduce or support desirable species by selective management, seeding or other means.	Ranger	As required.	17a, 17c, 17d

Access					
	SPA Review	Review path network to create areas of minimal disturbance for heathland birds and reptiles.	Ranger	Once a year.	Whole site
ML40 01	Liaise with relevant authorities	Liaise with relevant authorities (SCC RoW, HA & NE) to maintain statutory rights of way and roads taking into consideration the area's use as a PSE.	Ranger	As required.	Whole site
ME40 07	Tracks	Provide and maintain permissive routes, self guided trails.	Ranger/ Countryside Team	As required.	Whole site
	Tree safety inspections	Walk, inspect, report and rectify dangerous trees in zones1, 2 and 3.	Ranger	On a daily basis and after extreme weather events.	Whole site
	Fire breaks	Review, select, maintain and improve fire break network in line with Surrey Fire Brigade best practice.	Ranger/ Countryside Team	Annual review.	Whole site
MP00 01	Check site security	Protect site and its species by patrol.	Ranger	Regular inspections.	Whole site
ME00 04	Rationalise car parks	Continue to work towards closure of Pond car park and improvements to Boldermere car park.	Ranger	Ongoing.	Boldermere & Pond car parks
ME40 04	Maintain car parks	Maintain car parks by monitoring and working on infrastructure and clearing litter and flytipping.	Ranger	Twice a week throughout year.	Boldermere, Pond and Wren's Nest car parks
ME00 02	Recreational mowing	Maintain picnic areas at The Semaphore Tower and Boldermere by mowing.Mow wrens nest enclosure	Countryside Team	Twice a year.	5i, 7b, 10i
ME00 05	General site fabric management	Inspect, repair, replace or add new site infrastructure.	Ranger	Regular inspections.	Whole site

ME02 01	Maintain furniture	Maintain all site furniture to correct health and safety standards.	Ranger	Regular inspections.	Whole site
Interpretation					
MI40 01	Self Guided Trail Leaflet	Check, update and improve self guided trail leaflet.	Ranger	As required.	N/A
MI50 02	Provide and maintain noticeboards	Check and update information on noticeboards and publish ranger notes.	Ranger	4 times a year, once for each season.	N/A
	Site interpretation	Provide relevant on site information before, during and after significant works.	Ranger	As required.	Whole site
Funding					
AF01 08	Grant Applications	Review and identify sources of funding, grants and business opportunities to benefit particular species, habitats or visitor's experience.	Ranger/Grants Officer	Throughout year.	N/A
Review					
AP10 01	Review annual work programme	Prepare annual work programme for countryside team and contractors in liaison with Area Countryside Manager.	Ranger	Twice a year, spring and autumn.	N/A
AP20 01	Review Management Plan	Review management plan and its work programme.	Ranger	2012 for management plan review, yearly updates of work programme.	N/A
Legal					
AP50 01	Site risk assessment	Review and revise safety plan.	Ranger	Once a year.	N/A
ML60 01	Byelaw enforcement	Follow up byelaw infringements and liaise with emergency services. Produce site fire plan.	Ranger	As required.	Whole site

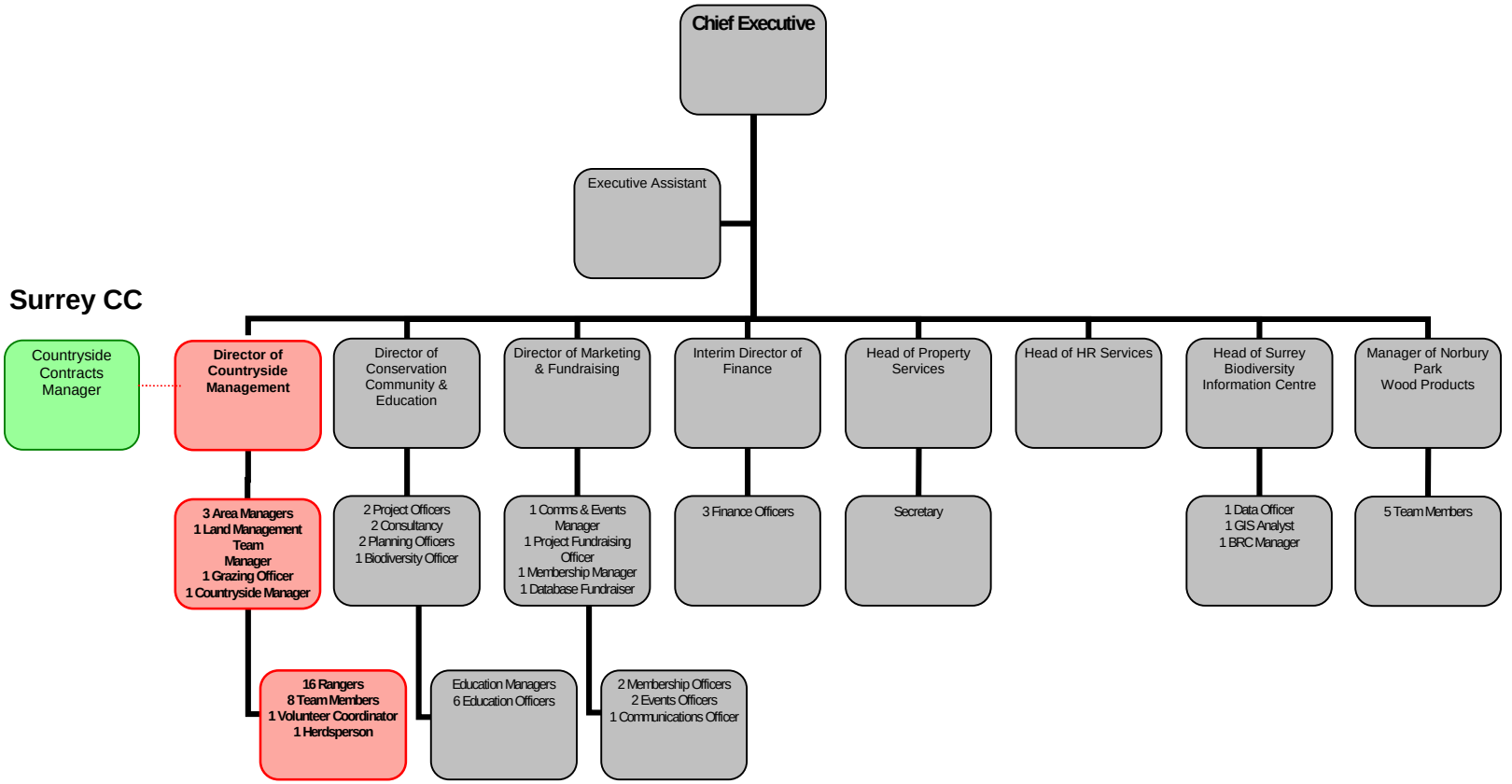
	Encroachments	Identify and report encroachments to SCC under agreed framework.	Ranger	As required.	Whole site
	Reservoirs Act	Carry out regular inspections of Boldermere sluice and bund. Record water levels. Attend yearly inspections by appointed engineer and carry out vital works.	Ranger	Monthly inspections.	8
Volunteers					
ML50 01	Liaise with local community	Liaise with local community via Ockham Parish Council, Wisley Environment Group (Safer Guildford Partnership), Liaison Group, Royal Horticultural Society, Ockham Bites, Birchmere Scout Hut and informal onsite/offsite meetings.	Ranger	Ongoing.	N/A
	Publish volunteer events	Organise and publish volunteer events.	Ranger	As required.	N/A
Research					
RV10 01	Fixed Point Photography	Establish new points following clearance and photograph.	Ranger	2 times a year, summer and winter.	Whole site
RF02 01	NVC Survey	Carry out general plant surveys on site. Refer to HLS targets for scrub, bracken, cryptograms, etc.	Ranger	Summer.	Whole site
RF23 01	Monitor Deschampsia setacea	Count the number of flowering spikes and plants every year.	Ranger	Once a year in July.	6
RF23 02	Monitor Pillwort	Check Boldermere lake edge and any new scrapes.	Ranger	Once a year.	8
RF23 03?	Monitor Bog Pimpernel	Check Puck's Pond.	Ranger	Once a year.	9h
RF23 04?	Monitor Royal Fern	Check Boldermere, Wisley stream line and army bridge.	Ranger	Once a year.	3b, 5i, 7c
RF23 05?	Monitor Birds Nest Orchids	Check colony on Boldermere stream line.	Ranger	Once a year.	7c

RV40 01	Map extent of woodland	Create new maps of plant communities.	Ranger	Ongoing.	Whole site
RB00 01	Organise new surveys by specialists	Organise on going surveys of SSSI citation species, effects of grazing/management and assemblage of site species.	Ranger/ Contractor	Ongoing.	Whole site
RF10 01	Collect information on woodland	Collect information about structure and composition of woodland.	Ranger	Ongoing.	Whole site
RA12 01	Site bird survey	Collect information about heathland birds, especially SPA species.	Ranger	3 visits to heath between early Aoril and mid-June.	Whole site
Archaeology					
MC00 01	Scrub control	Manage scheduled ancient monuments by controlling scrub.	Ranger	As required.	3d, 3f, 12
	Bracken control	Manage scheduled ancient monuments by controlling bracken.	Ranger/ Countryside Team/ Contractor	All done by contractor in 2007 & 2008. Monitor and treat as necessary.	As MC00 01
MC04 01	Tree management	Manage scheduled ancient monuments by removing tree cover.	Ranger/ Countryside Team	As required.	As MC00 01
MC10 01	Control scrub around mausoleum	Manage stonework on the mausoleum by controlling scrub, overhanging branches and plants growing out of structure.	Ranger/ Countryside Team	As required.	16
MC19 01	Manage Semaphore Tower	Manage stonework and presentation of the Semaphore Tower by clearing plants from base of tower.	Ranger	Once a year in the summer.	10i

Appendix 1:

Countryside Management Staff Structure

Surrey Wildlife Trust



Appendix 2

Policy and Practice Notes

COUNTRYSIDE MANAGEMENT

POLICY & PRACTICE NOTES

POLICY

1. SWT Health & Safety Policy

2. Health & Safety Guidelines

3. Land Acquisition & Disposal Policy

4. Vertebrate Control Policy (inc. Procedure for Instituting a Vertebrate Control Programme)

PRACTICE NOTES

1. General Code of Practice

2. Emergency Plan

3. Work Programming

4. Safety In The Office (Area Bases) inc. Fire Procedures

5. First Aid

6. Reporting and Investigation of Accidents And Dangerous Occurrences Regulations 1985 (RIDDOR 1985)

7. Occupational Health & Hygiene

8. General Safety On Sites

9. Safety In Fieldwork

10. Trust Vehicles

11. Safety At Events

12. Working With Electricity

13. Safety In Workshops

14. Risk Assessment

15. Manual Handling

16. Control Of Substances Hazardous To Health (COSHH)

17. Working With Contractors
18. Lone Working and Stranger Danger
19. Dealing With Dead Animals
20. Fire Procedure on Sites
21. Disposal of waste and rubbish
22. Use of plant and machinery
23. Tree Safety
24. Illegal encampments and incursions
25. Visitor Services - guidelines
26. Management plans
27. Working with Children
28. Working with Livestock
29. Working near/ on Water & guidelines for Waterbodies

SURREY COUNTY COUNCIL

BYELAWS

BYELAWS MADE BY SURREY COUNTY COUNCIL UNDER SECTIONS 12 AND 15 OF THE OPEN SPACES ACT 1906 WITH RESPECT TO OPEN SPACES

INTERPRETATION

1. Throughout these byelaws the expression 'the Council' means the County Council of Surrey and the expression 'Open Space' means any of the Open Spaces described in the First Schedule hereto.

ENFORCEMENT

2. An act necessary for the proper execution of his duty in an Open Space by an officer of the Council or by any person or servant of any person employed by the Council shall not be deemed an offence against these byelaws.

PROTECTION OF EQUIPMENT

3. A person shall not in any Open Space:—
   (i) wilfully, carelessly or negligently soil or deface any wall or fence in the Open Space or any building, barrier, railing, post, or seat, or any erection or ornament;
   (ii) wilfully, carelessly or negligently remove or displace any barrier, railing, post or seat, or any part of any erection or ornament, or any implement provided for use in the laying out or maintenance of the Open Space;
   (iii) climb any wall or fence in or enclosing the Open Space, or any tree or any barrier, railing or other erection.

GRAZING

4. A person shall not, except in pursuance of a lawful agreement with the Council, or otherwise in the exercise of any lawful right or pirvilege, turn out or permit any animal to graze on an Open Space.

VEHICLES

5. (i) No unauthorised person shall, except in the exercise of any lawful right or privilege, bring or cause to be brought on to any Open Space any machine, vehicle, caravan, trailer or other attachment, other than:—
      (a) a wheeled bicycle or other similar machine;
      (b) a wheel-chair or perambulator used solely for the conveyance of a child or an invalid; provided that where the Council set aside part of an Open Space for the use of any class of vehicle, this byelaw shall not be deemed to prohibit the driving to or from that space by a direct route from the entrance to the Open Space of any vehicle of the class for which it is set apart.
   (ii) A person shall not, except in the exercise of any lawful right or privilege, ride any bicycle or other similar machine in any part of an Open Space.
   (iii) No person shall carry out or cause or permit to be carried out any work of construction, repair, cleaning or maintenance to any vehicle or work constituting dismantling or breaking up of any vehicle except such work as may be necessary to enable a vehicle which has broken down to be removed from the Open Space.

NOTICES

6. A person shall not affix or cause to be affixed any bill, advertisement, placard or notice upon any building, wall, fence, gate, pillar, post, tree, rock or stone on or enclosing an Open Space.

BATHING

7. No person shall bathe in any lake, pond or waterway on an Open Space except when a notice of the Council permits bathing, nor shall any person wilfully, carelessly or negligently, foul or pollute any such water.

DOGS

8. A person shall not cause any dog belonging to him or in his charge to enter or remain in any Open Space unless such dog be and continue to be under proper control and be effectually restrained from causing annoyance to any person, and from worrying or disturbing any animal.

FIRES

9. (a) No person shall light a fire on any Open Space, or place or throw or let fall a lighted match or any other thing so as to be likely to cause a fire.
   (b) This byelaw shall not prevent the lighting or use of a properly constructed camping stove or cooker in any area set aside for the purpose, in such a manner as not to cause danger of or damage by fire.

CAMPING

10. A person shall not in any Open Space without the consent of the Council erect a tent or use any vehicle, including a caravan, or any other structure for the purpose of camping on the Open Space except on any area which may be set apart and indicated by notice of the Council as a place where camping is permitted.

TRADING

11. No person shall on an Open Space sell, or offer or expose for sale, or let to hire, or offer or expose for letting to hire any commodity or article, except in pursuance of an agreement with the Council.

FIREARMS

12. No person shall discharge any firearm or air weapon on an Open Space.

HORSERIDING

13. (a) No person shall, except in the exercise of any lawful right or privilege, ride any horse or other animal on any part of an Open Space where riding is prohibited by notice, barrier or other means including colour coding.
   (b) A person shall not in an Open Space ride any horse or other animal in such a manner as to cause danger to other persons on the Open Space or without reasonable consideration for them.
   (c) No person may erect any jumps or make intensive use of an Open Space for the purpose of training any horse or rider except in an area set aside by the Council for that purpose.

BOATING

14. No person shall launch any craft, boat or other apparatus of any description (including model boats) where this is prohibited by notice of the Council on any part of an Open Space covered by water.

PROTECTION OF WILDLIFE

15. (a) No person shall in an Open Space kill, take, molest or wilfully disturb any animal, bird or fish or take or injure any egg or nest or engage in hunting, shooting or fishing or the setting of traps or nets or the laying of snares or poison.
   (b) This byelaw shall not prohibit any fishing or hunting which may be authorised by the Council.

WATERCOURSES

16. No person shall obstruct the flow of any drain or watercourse, or open, shut or otherwise interfere with any sluicegate or similar apparatus on an Open Space.

BAND SHOWS

17. A person shall not take part in any musical concert, public show or other entertainment in an Open Space without the consent of the Council.

HAND-GLIDING

18. A person shall not in an Open Space take off, fly or land any glider, manned or unmanned, weighing in total more than 4 kilogrammes.

NOISE

19. No person shall, by operating or causing or suffering to be operated any wireless set, gramophone, amplifier, tape recorder or similar instrument, make, cause or suffer to be made any noise which is so loud or so continuous or repeated as to give reasonable cause for annoyance to other persons on the land.

NUISANCES

20. A person shall not in an Open Space wilfully obstruct, disturb, interrupt, or annoy any other person in the proper use of an Open Space or wilfully obstruct, disturb or interrupt a warden or any other officer of the Council in the proper execution of his duty, or any person or servant of any person employed by the Council in the proper execution of any work in connection with the laying out or maintenance of an Open Space.

PENALTY

21. Every person who offends against any of these byelaws shall be liable on summary conviction to a fine not exceeding twenty pounds.

REMOVAL

22. Every person who infringes any byelaws for the regulation of an Open Space may be removed by any officer of the Council, or by any constable, in any one of the following cases, that is to say:—
   (i) where the infraction of the byelaw is committed within the view of such officer or constable, and the name and residence of the person infringing the byelaw are unknown to and cannot be readily ascertained by such officer or constable;
   (ii) where the infraction of the byelaw is committed within the view of such officer or constable, and from the nature of such infraction or from any other fact of which such officer or constable may have knowledge, or of which he may be credibly informed, there may be reasonable ground for belief that the continuance in the Open Space of the person infringing the byelaw may result in another infraction of a byelaw, or that the removal of such person from the Open Space is otherwise necessary as a security for the proper use and regulation thereof.

REPEALS

23. The byelaws specified in the Second Schedule are hereby repealed.

TITLE

24. These byelaws may be cited as 'The County Council of Surrey (Open Spaces) Byelaws 1978.'

FIRST SCHEDULE
Open Spaces to which the Byelaws apply

Backside Common, Worplesdon.
Beech Avenue, Effingham.
Betchworth Clump.
Bisley Common.
Bisley Common (Reidon Hill area).
Bisley Green (excluding car park).
Broadstreet Common, Worplesdon.
Burners Heath, Pirbright.
Castle Green, Chobham.
Chapel Hill Wood, Mickleham.
Chapel Wood, Mickleham.
Chatley Heath, Cobham.
Chertsey Meads meadow lands, Dockett Eddy and Dumsey Point river frontages, Chertsey.
Chinthurst Hill and car park area, Wonersh.
Chittys Common, Worplesdon.
Chobham Common (including Burrow Hill, Dunstall Green and Stanners Hill Common).
Clasford Common, Worplesdon.
Cox Hill Green, Chobham.
Creekside, Egham.
Deepdene, Dorking.
Duke's Plantation, Brockham Hills.
Fellow Green, West End.
Frog Grove Lane, Manorial Waste, Worplesdon.
Hill Park Estate, Tatsfield.
Hogs Back at Seale and Puttenham —
   (a) Picnic site.
   (b) Site of Pitfield House.
   (c) Seale Chalk Pit.
   (d) Land between reservoir and Squire's Holt Restaurant.
Hookstone Green, West End.
Little Heath, Chobham.
Littlefield Common, Worplesdon.
Manorial wasteland at Chobham —
   Beldham Bridge.
   Brentmoor Road.
   Lovelands Lane.
   Pennypot Lane.
   Scott's Grove Road.
Lucas Green and Westend Common.
Markedge Shaw, Chipstead.
Miles Green, Bisley.
Milford Green, Chobham.
Mousehill Down and Rodborough Common, Milford.
Norbury Park Estate (woodlands and meadow lands), Mickleham.
Ockham Common.
Old Brockham Lime Works (and land adjoining).
Park Ham, Chaldon.
Perry Hill Green, Worplesdon.
Pitch Place Green, Worplesdon.
Point Meadow, Shepperton.
Porters Wood, Poorfield Wood, Tickners Wood and Long Plantation, all at Shabden Park Estate, Chipstead.
Rickford Common, Worplesdon.
Ripley Green.
River Park Estate, Spelthorne.
Rydes Hill Common, Worplesdon.
Sandpits Send Hill (Manorial Waste).
Send Marsh Green.
Streets Heath, West End.
Stringers Common, Worplesdon.
The Glade, Holmbury St. Mary.
The Sheepleas, East and West Horsley (including Greendene and Rogers Brook).
Tilburstow Hill, Godstone.
Wisley Common.
Whitmoor Common, Worplesdon.
Wood Street Green, Worplesdon.

SECOND SCHEDULE
Byelaws Repealed

1. Byelaws made by Surrey County Council with respect to Norbury Park Estate, Mickleham, on 31 October 1933.
2. Byelaws made by Surrey County Council with respect to Ockham Common and Wisley Common on 27 April 1962 and confirmed by the Secretary of State on 20 September 1962.
3. Byelaws made by the Rural District Council of Guildford with respect to Ripley Green, Ripley, on 3 January 1935, and confirmed by the Minister of Health on 8 March 1935.

THE COMMON SEAL of THE COUNTY COUNCIL OF SURREY was hereunto affixed on 23 March 1978 in the presence of:—

LS

A. N. MUNDY

Deputy County Clerk

The foregoing byelaws are hereby confirmed by the Secretary of State and shall come into operation on the 17th of June 1978.

Signed by authority of the Secretary of State

R. F. D. SHUFFREY
An Assistant Under Secretary of State

Home Office
LONDON SW1

6 June 1978

GENERAL ACT PROVISIONS

Penalty	S. 31 of the Criminal Law Act 1977 increases the maximum penalty for Byelaw offences to £50.
Disorderly Behaviour	The County Council's Good Rule and Government Byelaws create a variety of offences for the use of obscene language, indecency and threatening behaviour.
Litter	Section 1 of the Litter Act 1959 makes it an offence to leave litter about and Section 19(1) of the Civic Amenities Act, 1967 also makes it an offence to abandon larger items of waste such as motor vehicles.
Conservation of Wild Life	The Protection of Birds Act 1954-1967 makes it an offence to interfere with wild birds, their nests and eggs, and the Conservation of Wild Creatures and Wild Plants Act 1975 makes it an offence to uproot any wild plant and further protects specified plants and creatures. Suspected offenders may be required to leave the land and may be searched and required to give their name and address.
Model Aircraft Glider & Kites	Article 45 of the Air Navigation Order 1976 prohibits allowing a model aircraft, glider or kite to endanger any person or property.
Criminal Damage	The Criminal Damage Act 1971 Ss 1-3 creates offences for destroying or damaging another's property or threatening to do so or having anything to use for that purpose.
Metal Detectors	A Post Office licence is required. [Their use is PROHIBITED unless the Council's written consent is obtained.]
Offence Weapons	The Firearms Act 1968 S.19 makes it an offence to carry firearms in a public place. The Prevention of Crime Act 1953, S.1 makes it an offence to carry an offensive weapon in a public place. The Public Health Act Amendment Act 1907 S.81 makes it an offence to discharge a missile in a public place.

Appendix 4:

COUNTY: SURREY SITE NAME: OCKHAM AND WISLEY COMMONS

BOROUGHS: ELMBRIDGE, GUILDFORD

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

Local Planning Authorities: ELMBRIDGE BOROUGH COUNCIL, Guildford Borough Council

National Grid References: TQ 070585, TQ 082585 TQ 084592, TQ 078595 Area: 269.6 (ha.) 666.2 (ac.)

Ordnance Survey Sheet 1:50,000: 187 1:10,000: TQ 05 NE

Date Notified (Under 1949 Act.): 1975 Date of Last Revision: Ð

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

Other Information:
The majority of Ockham & Wisley Commons SSSI is owned and managed by Surrey County Council as an Open Space. The site includes several areas of Common Land. The boundary of the site has been modified at renotification by several deletions and extensions. The lakes at Pains Hill and Silvermere are no longer part of this site.

Reasons for Notification:
This site consists of a large tract of heathland lying between the Mole and Wey Rivers near Cobham, containing areas of heath, bog, open water, secondary woodland and scrub. This variety of habitats supports a rich community of heathland plants and animals, including a large number of rare and local insects.

Lowland heaths have been a feature of the British landscape for several thousand years, but the area of heathland has been reduced steadily by land-use changes such as conversion to intensive agriculture, forestry or urban development. This loss has been particularly rapid this century, and 40% of heathland remaining in 1950 has now been destroyed. As their habitat is destroyed, the many specialised plants and animals which live on heathland have become increasingly rare. Since little heathland is still maintained by grazing, much of it is becoming overgrown with scrub and trees, a process which may be seen clearly at this site.

The site lies on Bagshot beds, which give rise to an acidic sandy soil supporting heath dominated by ling Calluna vulgaris and bell heather Erica cinerea, and in grassy areas by common bent grass Agrostis capillaris and wavy hair-grass Deschampsia flexuosa. Amongst these plants grow dwarf furze Ulex minor, petty whin Genista anglica and shepherdÕs cress Teesdalia nudicaulis. Animals found here include such local insects as the silver-studded blue butterfly Plebejus argus and the wood tiger beetle Cicindela sylvatica. In wet areas, where the sand is overlain by peat, the heath is dominated by ling, cross-leaved heath Erica tetralix, purple moor-grass Molinia caerulea, tufted hair-grass Deschampsia cespitosa and bog-moss Sphagnum spp. Also found here are royal fern

Osmunda regalis, lesser skullcap Scutellaria minor, meadow thistle Cirsium dissectum and creeping willow Salix repens, and the largest Surrey colonies of bog hairgrass Deschampsia setacea which is local in Britain and rare in Europe as a whole. Among the many local insects found here are bog bush-cricket Metrioptera brachyptera and a large robber fly Asilus crabroniformis.

Most of the heathland is very overgrown with bracken Pteridium aquilinum and invasive trees and shrubs; mainly silver birch Betula pendula, Scotôs pine Pinus sylvestris and oak Quercus robur. In several parts of the site there are dense pine plantations which have replaced the heathland completely.

There are several areas of open water within the site, including Bolder Mere and a number of ponds and pools in the wet heathland. Plants growing around the water include several Surrey rarities including shoreweed Littorella uniflora, marsh St Johnôs wort Hypericum elodes and lesser water-plantain Baldellia ranunculoides. Locally-distributed plants include needle spike-rush Eleocharis acicularis and pillwort Pilularia globulifera. Open water surrounded by heathland presents an ideal habitat for many dragonflies and damselflies (Odonata), and over 20 species have been recorded from the site which is thus of national importance for this group. They include the rare white-faced dragonfly Leucorrhinia dubia, the local hairy dragonfly Brachytron pratense and the ruddy darter Sympetrum sanguineum. The site also supports many other local and rare invertebrates. It is of national importance for true flies (Diptera); rare species include a bee fly Thyridanthrax fenestratus and a crane-fly Tipula livida, while the crane-fly Limonia inusta is among the many local species. A large number of local beetles (Coleoptera) are also found, including the ground beetle Amara infima and the weevil Byctiscus populi.

South East Region – Eastern Area Team
Phoenix House
32-33 North Street
Lewes
East Sussex, BN7 2PH
Tel: 01273 476595
Fax: 01273483063
www.naturalengland.org.uk

CONSERVATION OBJECTIVES and DEFINITIONS OF FAVOURABLE CONDITION for DESIGNATED FEATURES OF INTEREST:

These Conservation Objectives relate to all designated features on the SSSI, whether designated as SSSI, SPA, SAC or Ramsar features.

Name of Site of Special Scientific Interest (SSSI)	
Ockham & Wisley Commons	
Names of designated international sites	
Special Area for Conservation (SAC)	N/A
Special Protection Area (SPA)	Thames Basin Heaths
Ramsar :	N/A
Relationship between site designations	
The site is one of 13 SSSIs which make up the SPA. The whole of the SSSI south of the M25 is within the SPA.	

Version Control information	
Status of this Version (Draft, Consultation Draft, Final)	Site Specific Draft
Prepared by:	Louise Bardsley
Date of this version:	24/01/08
Date of generic guidance on favourable condition used:	See reference lists at end of tables
Other notes/version history :	Guidance Assembled by Diane Taylor 25Jan05 & additional information prepared by Victoria Hume 26/09/06 & Louise Bardsley on 31/10/06. updated following invertebrate guidance & Carole Mortimer on 24/08/07 and 30/01/08 following advice from Jon Webb Updated 5/12/07 by Jo Clarke following vascular plant advice from Ron Porley.
Quality Assurance information	

Checked by	**Name:**	**Date:**
	Signature	

Conservation Objectives and definitions of Favourable Condition: notes for users

Conservation Objectives
SSSIs are notified because of specific biological or geological features. Conservation Objectives define the desired state for each site in terms of the features for which they have been designated. When these features are being managed in a way which maintains their nature conservation value, then they are said to be in 'favourable condition'. It is a Government target that 95% of the total area of SSSIs should be in favourable condition by 2010.

Definitions of Favourable Condition
The Conservation Objectives are accompanied by one or more habitat extent and quality definitions for the special interest features at this site. These are subject to periodic reassessment and may be updated to reflect new information or knowledge; they will be used by Natural England and other relevant authorities to determine if a site is in favourable condition. The standards for favourable condition have been developed and are applied throughout the UK.

Use under the Habitats Regulations
The Conservation Objectives and definitions of favourable condition for features on the SSSI may inform the scope and nature of any 'appropriate assessment' under the Habitats Regulations. An appropriate assessment will also require consideration of issues specific to the individual plan or project. The habitat quality definitions do not by themselves provide a comprehensive basis on which to assess plans and projects as required under Regulations 20-21, 24, 48-50 and 54 - 85. The scope and content of an appropriate assessment will depend upon the location, size and significance of the proposed project. Natural England will advise on a case by case basis.

Following an appropriate assessment, competent authorities are required to ascertain the effect on the integrity of the site. The integrity of the site is defined in para C10 of PPG9 as the coherence of its ecological structure and function, across its whole area, that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified. The determination of favourable condition is separate from the judgement of effect upon integrity. For example, there may be a time-lag between a plan or project being initiated and a consequent adverse effect upon integrity becoming manifest in the condition assessment. In such cases, a plan or project may have an adverse effect upon integrity even though the site remains in favourable condition.

The formal Conservation Objectives for European Sites under the Habitats Regulations are in accordance with para. C10 of PPG 9, the reasons for which the European Site was classified or designated. The entry on the Register of European Sites gives the reasons for which a European Site was classified or designated.

Explanatory text for Tables 2 and 3
Tables 2 and 3 set out the measures of condition which we will use to provide evidence to support our assessment of whether features are in favourable condition . They are derived from a set of generic guidance on favourable condition prepared by EN specialists, and have been tailored by local staff to reflect the particular characteristics and site-specific circumstances of individual sites. Quality Assurance has ensured that such site-specific tailoring remains within a nationally consistent set of standards. The tables include an audit trail to provide a summary of the reasoning behind any site-specific targets etc. In some cases the requirements of features or designations may conflict; the detailed basis for any reconciliation of conflicts on this site may be recorded elsewhere.

Conservation Objectives

The Conservation Objectives for this site are, subject to natural change, to maintain the following habitats and geological features in favourable condition (*), with particular reference to any dependent component special interest features (habitats, vegetation types, species, species assemblages etc.) for which the land is designated (SSSI, SAC, SPA, Ramsar) as individually listed in Table 1.

Habitat Types represented (Biodiversity Action Plan categories)

Dwarf Shrub Heath
Open Standing Water and Canals

Geological features (Geological SiteTypes)

N/A

(*) or restored to favourable condition if features are judged to be unfavourable .

Standards for favourable condition are defined with particular reference to the specific designated features listed in Table 1, and are based on a selected set of attributes for features which most economically define favourable condition as set out in Table 2 and Table 3:

Table 1 Individual designated Special Interest Features

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
Dwarf Shrub Heath	European Dry Heaths North Atlantic Wet Heaths with *Erica tetralix*	Lowland sub-Atlantic English heathland	*								
	Outstanding assemblage of invertebrates	Broad assemblage type: F11 unshaded early successional mosaic Specific assemblage type: F111 sand and chalk	*								
	Outstanding assemblage of invertebrates	Broad assemblage type: F22 scrub heath & moorland	*								
	Populations of breeding birds *Caprimulgus europaeus* *Lullula arborea* *Sylvia undata*	Breeding bird populations of European interest: Nightjar, Woodlark, Dartford warbler			*						
	Populations of *Cicindela sylvatica (Nb)*	Rare invertebrates: heath tiger beetle	*								
	Populations of *Thyridanthrax fenestratus*	Rare invertebrates: mottled bee-fly	*								
	Popultations of *Asilus crabroniformis*	Rare invertebrates: hornet robber-fly	*								
Open Standing	Waterbodies on Bagshot beds		*								

BAP Broad Habitat type / Geological Site Type	Specific designated features	Explanatory description of the feature for clarification	SSSI designated interest features	SAC designated interest features	SPA bird populations dependency on specific habitats			Ramsar criteria applicable to specific habitats			
					Annex 1 species	Migratory species	Waterfowl assemblage	1a Wetland characteristics	2a Hosting rare species &c	3a 20000 waterfowl	3c 1% of population
Water	Outstanding Odonata assemblage	Assemblage of dragonflies including: *Somatachlora metallica, Sympetrum sanguineum, Orthetrum coerulescens, Sympetrum scoticum*	*								

NB. 1). Features where asterisks are in brackets (*) indicate habitats which are not notified for specific habitat interest (under the relevant designation) but because they support notified species. 2) The requirements of species (including SPA bird species) are reflected in the Conservation Objectives for habitat features on which they depend. In some specific situations, direct population measures for species may also be used to provide supporting information to confirm habitat quality measures.

Table 2a Habitat Features - Extent Objectives

Conservation Objective for habitat extent	To maintain the designated habitats in favourable condition, which is defined in part in relation to a balance of habitat extent (extent attribute). Favourable condition is defined at this site in terms of the following site-specific standards:
Extent - Dynamic balance	On this site favourable condition requires the maintenance of the extent of each designated habitat type. Maintenance implies restoration if evidence from condition assessment suggests a reduction in extent.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Measure	Site Specific Targets	Comments
Lowland dry heathland	23.0ha	Measured using MapInfo and NVC data (EPR, 2005.)	No unconsented decline in the area of the habitat. Where mapped on baseline map target includes restoration areas from scrub and pine woodland to dry heathland.	Lowland heathlands are habitats created mostly through human management by grazing, cutting and burning. If they are left to natural processes, then they lose their open character and disappear under thick scrub or secondary forest. However some fluctuations and variations from year to year are normal and acceptable.
Populations of *Cicindela sylvatica* **(Lowland dry heathland)**	2 – 10% Paths and bare ground on heathland	Measured using MapInfo and NVC data (EPR, 2005.)	At least 2% useable bare ground in core habitat area and abundance of foodplant.	*Cicindela sylvatica* likes open, bare sand which has not been churned. The surface should be loosely friable. Suitable habitat will be found mostly on paths and bare ground scrapes. Suggested management entails ensuring the paths are not all churned and that they aren't lost.
Populations of *Thyridanthrax fenestratus* **(Lowland dry heathland)**	Lowland dry heathland and between 2-10% paths and bare ground	Measured using MapInfo and NVC data (EPR, 2005.)	No more than 25% reduction from original baseline in dry heathland area or abundance of foodplant. Presence of at least 2% useable bare ground.	*Thyridanthrax fenestratus* likes open, bare sand which has not been churned and is loosely friable. This habitat can be found on paths and bare earth scrapes. The species also requires areas of young and mature heather as it is a parasite of a large sand-digging wasp, which itself is a parasitoid of moths that feed on mature heather. Suggested management includes making sure that the paths aren't all churned or lost and that the heather does not get even-age. There should always be some younger heather.

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Measure	Site Specific Targets	Comments
Popultations of *Asilus crabroniformis* **(Lowland dry heathland)**	Presence of sandy grassland and heathland edges and between 2-10% bare ground	Measured using MapInfo and NVC data (EPR, 2005.)	No more than 25% reduction from original baseline in core habitat area or abundance of foodplant.	*Asilus crabroniformis* requires loosely friable soil (its larvae live in the burrows of large dung beetles), dung (horse, cow etc) and some cover in the form of scrub, hedges etc but open hunting areas such as grassland. They therefore tend to found in areas such as dunes, sandy grassland and heathland edges. Suggested management includes not losing grazers and ensuring that suitable habitats are kept structurally diverse.
Lowland wet heathland	0.2ha	Measured using MapInfo and NVC data (EPR, 2005.)	No unconsented decline in the area of the habitat. Where mapped on baseline target includes restoration areas from scrub to wet heathland.	Lowland heathlands are habitats created mostly through human management by grazing, cutting and burning. If they are left to natural processes, then they lose their open character and disappear under thick scrub or secondary forest. However some fluctuations and variations from year to year are normal and acceptable.
Standing open water	Boldermere Lake = 5.46ha Total open standing water = 7.38ha	Assessment against baseline map. Aerial photographs may be useful.	No loss of extent of standing water	This attribute is to assess changes caused by active management, such as infilling or channel diversion. Changes due to drying out or successional change are covered under other attributes.
Outstanding Odonata assemblage **(Open standing water, ponds and ditches)**	Total open standing water = 7.38ha and ditches	Field survey and/or aerial photography, in relation to baseline map.	No more than 25% reduction in core larval habitat area from original baseline.	

Audit Trail
Rationale for habitat extent attribute (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).

Habitat Feature (BAP Broad Habitat level, or more detailed level if applicable)	Estimated extent (ha) and date of data source/estimate	Measure	Site Specific Targets	Comments
Rationale for site-specific targets (including any variations from generic guidance)				
• Boldermere lake is notified in its own right the other habitats are not notified in their own right but support invertebrate features. Advice from national specialists (Jon Webb) is no more than 25% loss of the core habitat. Therefore the extent attributes have been left to address this point. • Advice was given by Jon Webb regarding the required habitats of the individually notified invertebrates. Agreed change from generic guidance of maintaining 2-10% useable bare earth as habitat extent- should be assess on a whole site basis. (January 2008.)				
Other Notes				

Table 2b Species population objectives

Conservation Objective for species populations	To maintain the designated species in favourable condition, which is defined in part in relation to their population attributes. Favourable condition is defined at this site in terms of the following site-specific standards:
Population balance	On this site favourable condition requires the maintenance of the population of each designated species or assemblage. Maintenance implies restoration if evidence from condition assessment suggests a reduction in size of population or assemblage.

Species Feature (species or assemblage)	**List supporting BAP Broad Habitats**	**Population Attribute (eg presence/absence, population size or assemblage score)**	**Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)**	**Comments**
Nightjar *(Caprimulgus europaeus)*	**Dwarf shrub heath**	SPA survey (single survey 1998/99) = 264 pairs SSSI 5 year mean (2003-07) = 2 individuals	This species is designated at the SPA level only. **SPA target (from baseline data from EC Directive):** Maintain the population above **198** pairs (75%). A loss of 66 pairs (25%) or more is unacceptable. **Discretionary SSSI target (from more recent data from 2Js Ecology):** Maintain the population at **2** individuals or above (75%). A loss of 1 individual (25%) or more is unacceptable. This is not a compulsory target as the species is not designated at a SSSI level. Assess population size using peak counts for the winter preceding the assessment date.	**SPA data: (EC Directive 1998/99)** 264 pairs (7.8% GB) **SSSI data: (2Js Ecology 2003-07)** **Year Summary of counts** 2003 NCA 2004 2 2005 NCA 2006 1 2007 2 (NCA = No Count Available)

Species Feature (species or assemblage)	List supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Woodlark *(Lullula arborea)*	**Dwarf shrub heath**	SPA survey (single survey 1997) = 149 pairs SSSI 5 year mean (2003-07) = 1 individual	This species is designated at the SPA level only. **SPA target (from baseline data from EC Directive):** Maintain the population above **112** pairs (75%). A loss of 37 pairs (25%) or more is unacceptable. **Discretionary SSSI target (from more recent data from 2Js Ecology):** Maintain the population at **1** individual or above (75% of 5 year population mean). A loss of 1 individual (25% of 5 year population mean) or more is unacceptable. This is not a compulsory target as the species is not designated at a SSSI level. Assess population size using peak counts for the winter preceding the assessment date.	**SPA data: (EC Directive 1997)** 149 pairs (9.9% GB) **SSSI data: (2Js Ecology 2003-07)** **Year** **Summary of counts** 2003 0 2004 NCA 2005 NCA 2006 2 2007 2 (NCA = No Count Available)

Species Feature (species or assemblage)	List supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Dartford Warbler *(Sylvia undata)*	**Dwarf shrub heath**	SPA survey (single survey 1999) = 445 pairs SSSI 5 year mean (2003-07) = 3 individuals	This species is designated at the SPA level only. **SPA target (from baseline data from EC Directive):** Maintain the population above **334** pairs (75%). A loss of 111 pairs (25%) or more is unacceptable. **Discretionary SSSI target (from more recent data from 2Js Ecology):** Maintain the population at **2** individuals or above (75% of 5 year population mean). A loss of 1 individuals (25% of 5 year population mean) or more is unacceptable. This is not a compulsory target as the species is not designated at a SSSI level. Assess population size using peak counts for the winter preceding the assessment date.	**SPA data: (EC Directive 1999)** 445 pairs (27.8% GB) **SSSI data: (2Js Ecology 2003-07)** **Year Summary of counts** 2003 0 2004 NCA 2005 NCA 2006 4 2007 4 (NCA = No Count Available)
Outstanding dragonfly assemblage	**Open standing water**	Evidence of confirmed or probable breeding	Monitor assemblage once in every 6 year monitoring cycle. Using defined invertebrate sampling protocols as in Guidance of September 2006.	This attribute is to be assessed through specialist survey.

Species Feature (species or assemblage)	List supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Outstanding invertebrate assemblage of mature heathland	**Dwarf shrub heath**	Specialist direct monitoring of assemblage score based on presence/absence of specified proportion of species typical of habitat listed in ISIS	Monitor assemblage once in every 6 year monitoring cycle. Using defined invertebrate sampling protocols thresholds to be met: ISIS score: F22 Scrub heath & Moorland SQI score 160	This attribute is to be assessed through specialist survey Note the CSM guidance is under review and for the first round of monitoring the F22 target should be used.
Outstanding invertebrates assemblage of early successional stages	**Dwarf shrub heath**	Specialist direct monitoring of assemblage score based on presence/absence of specified proportion of species typical of habitat listed in ISIS	Monitor assemblage once in every 6 year monitoring cycle. Using defined invertebrate sampling protocols thresholds to be met: F11 early successional: SQI score = 180 F111 sand and chalk: Weighted Species Score = 25*	This attribute is to be assessed through specialist survey. * These scores are under review. For the initial CSM reporting use the target for the Broad assemblage type: F11 unshaded early successional mosaic.
Populations of *Cicindela sylvatica*	**Dwarf shrub heath**	Presence/absence at the appropriate life stage which provides consistent monitoring, in each reporting round.	Species should be present.	This attribute is to be assessed through specialist survey.

Species Feature (species or assemblage)	List supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Populations of *Asilus crabroniformis*	**Dwarf shrub heath**	Presence/absence at the appropriate life stage which provides consistent monitoring, in each reporting round.	Species should be present.	This attribute is to be assessed through specialist survey.
Populations of *Thyridanthrax fenestratus*	**Dwarf shrub heath**	Presence or absence should be assessed at the appropriate life stage which provides consistent monitoring in each reporting round	Species should be present.	This attribute is to be assessed through specialist survey.
		Population count	Where sufficient information on the species' ecology exists, there is value in obtaining increased confidence in the long-term viability of the population. This may involve either counts of individuals, subpopulations or mapping the extent of the population.	This attribute is to be assessed through specialist survey.
Audit Trail				
Rationale for Species extent and population attribute (Include methods of estimation (measures), and the approximate degree of change which these are capable of detecting).				

Species Feature (species or assemblage)	List supporting BAP Broad Habitats	Population Attribute (eg presence/absence, population size or assemblage score)	Site Specific Target range and Measures (specify geographical range over which target applies ie site, BAP broad habitat or more specific)	Comments
Rationale for site-specific targets (including any variations from generic guidance)				
• Dragonflies are specifically mentioned on the criteria sheet and qualify as an assemblage under the Invertebrate guidance on CSM Monitoring (EN 2006). Invertebrate assemblages follow advice from national specialists (Jon Webb, Roger Key) and CSM Monitoring published guidance (EN 2006). • Higher Plant monitoring follows advice from National Specialist Ron Porley the plants did not fit into suites and were better suited to individual extent monitoring only • Bryophyte monitoring follows advice from National Specialist Ron Porley, some species were put in with relevant habitats and only the very uncommon Dicranum was left for specific individual monitoring. The site dossier is mentioned in the comments column. • Reference for SPA bird data: 'EC Directive 79/409 on the Conservation of Wild Birds Proposed Special Protection Area (pSPA)' for 'Thames Basin Heaths'. The Generic Threshold Approach has been adopted for this target as only data for one survey was available. • Although the birds are not designated at a SSSI level, Ockham and Wisley SSSI is a component of the Thames Basin Heath SPA. Therefore, discretionary targets have been additionally presented at a component site level. The Generic Threshold Approach has been adopted for the SSSI data using a mean of the available data. This is because although five years of data was available, some of it was incomplete or the minimum count for the data set was zero. This makes using the Natural Fluctuation Approach inappropriate. • References for SSSI bird data: o 2003 data = Clark, J. and Eyre, J. 2003. Annex 1 Birds on the Thames Basin Heaths pSPA - The Results of the 2003 Monitoring Programme for English Nature. o 2004 data = Clark, J. and Eyre, J. 2004. Annex 1 Birds on the Thames Basin Heaths pSPA - The Results of the 2004 Monitoring Programme for English Nature. o 2005 data = Clark, J. and Eyre, J. 2005. Annex 1 Birds on the Thames Basin Heaths SPA - The Results of the 2005 Monitoring Programme for English Nature. o 2006 data = Clark, J. and Eyre, J. 2006. Annex 1 Birds on the Thames Basin Heaths SPA - The Results of the 2006 Monitoring Programme for Natural England. o 2007 data = Clark, J. and Eyre, J. 2007. Annex 1 Birds on the Thames Basin Heaths SPA - The Results of the 2007 Monitoring Programme for Natural England				
Other Notes				

Table 3a Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **lowland dry heath** habitats at this site in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	
Site-specific standards defining favourable condition	

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Lowland dry heathland, H2, H3[(1)]	Vegetation structure: growth phase composition of ericaceous cover	Visual assessment of cover, using structured walk or transects	**Favourable condition**: Pioneer phase (including pseudo-pioneer): 10-40%;Building/mature phase: 20-80%; Degenerate phase: <30%; and Dead: <10%, of total ericaceous cover.	Both a young stand of e.g. 40-60-0-0 (P-B/M-Dg-Dd) and a mature stand of e.g. 10-65-20-5 (P-B/M-Dg-Dd) would meet the conservation objectives, though structurally they will be very different. Annual variation and succession should be accounted for within the targets. This attribute should be assessed only where it is possible to differentiate the growth phases.	Yes
	Bare ground (%)	Visual assessment of cover, using structured walk or transects	**Favourable condition**: At least 5% but not more than 10% cover of the area of the feature should consist of firm, sunlit, horizontal, sloping or vertical, exposed bare ground, with no more than 1% heavily disturbed (see text above)	Bare ground should form a patchwork with vegetation and be present mainly in south-facing slopes. Exclude rock, stone or litter. Tracks or paths can also be a source or bare ground for nesting invertebrates. A higher percentage of bare ground is acceptable if the site is important for certain bird species, e.g. curlews, woodlarks, nightjars.	Yes
	Vegetation composition: bryophytes and lichens	Visual assessment of cover, using structured walk or transects	**Favourable condition:** % cover maintained or increased (when naturally present)	Not applicable on all sites. Refer to existing information and surveys of the site. Does not include dense mats of acrocarpous mosses (e.g. *Campylopus introflexus*) which should not be more than occasional (see negative indicators)	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
	Indicators of local distinctiveness:	Visual assessment of habitat area in reference to baseline map –		For notable species it is not intended to set a target for detailed species monitoring, rather to provide a rapid indication of presence/ absence and/or approximate extent, allowing for natural fluctuations in population size.	Yes
	Vegetation composition: dwarf shrubs	Visual assessment of cover, using structured walk or transects	**Favourable condition**: At least two species of dwarf shrubs present and at least frequent.	In naturally species-poor sites the presence of just one dwarf-shrub species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes
	Vegetation structure: % cover of dwarf shrubs	Visual assessment of cover, using structured walk or transects and aerial photographs, maps.	**Favourable condition** Dwarf shrub cover 25-90% (see section 10.4)	Dwarf-shrubs include: *Arctostaphylos uva-ursi, Calluna vulgaris, Empetrum nigrum, Erica ciliaris, E. cinerea, E. tetralix, E. vagans, Genista anglica, G. pilosa, Ulex gallii, U. minor, Vaccinium myrtillus, V. vitis-idaea* (and hybrids).Assess over whole feature. Annual variation and succession should be accounted for within the targets.	Yes
	Vegetation structure: % cover of Ulex spp.	Visual assessment of cover, using structured walk or transects and aerial photographs, maps.	**Favourable condition** Total Ulex and/or *Genista spp*. cover <50%, with *Ulex europaeus* <25%.	Assess over whole feature. Gorse species support a rich invertebrate and vertebrate fauna. However, the can affect the soil characteristics. See also 'negative indicators'.	Yes
	Vegetation composition: graminoids	Record presence, using structured walk or transects	**Favourable condition**: At least 1 species at least frequent and 2 species at least occasional throughout the sward; but *Deschampsia flexuosa* and *Nardus stricta* no more than occasional and <25% cover Graminoids include: *Agrostis spp., Ammophila arenaria, Carex spp., Danthonia decumbens, Deschampsia flexuosa, Festuca spp., Molinia caerulea, Nardus stricta, Trichophorum cespitosum.*		Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
	Vegetation composition: desirable forbs	Record presence, using structured walk or transects	**Favourable condition** requires at least 2 species at least occasional throughout the sward Desirable forbs include: *Armeria maritima, Galium saxatile, Genista anglica, Hypochaeris radicata, Lotus corniculatus, Plantago lanceolata, Plantago maritima, Polygala serpyllifolia, Potentilla erecta, Rumex acetosella, Scilla verna, Serratula tinctoria, Thymus praecox, Viola riviniana, and for limestone heath only: Filipendula vulgaris, Galium verum, Helianthemum nummularium, Sanguisorba minor.*	In naturally species-poor sites, the presence of just one forb species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	**Favourable condition:** <1% exotic species Negative indicators – exotics include: *Rhododendron ponticum, Gaultheria shallon, Fallopia japonica*.	Exotic species should be eradicated if possible.	Yes
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	**Favourable condition**: Acrocarpous mosses <occasional	Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	**Favourable condition** <10% bracken (dense canopy)	Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	**Favourable condition** < 1 % ragwort, nettle, thistles and other herbaceous spp Negative indicators – other herbaceous spp include: *Cirsium arvense, Digitalis*	Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
			purpurea, Epilobium spp. (excluding. E. palustre), Chamerion angustifolium, Juncus effusus, J. squarrosus, Ranunculus spp., Senecio spp., Rumex obtusifolius, Urtica dioica, 'coarse grasses'.		
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	**Favourable condition** < 15% trees & scrub Tree and scrub spp include: *Betula spp., Prunus spinosa, Pinus spp., Rubus spp., Sarothamnus scoparius, Quercus spp., Hippophae rhamnoides*	Up to 25% scrub cover can be accepted if indicated in conservation objectives or management plan.	Yes
	Negative indicators: signs of disturbance	Visual assessment of cover, using structured walk or transects	**Favourable condition** <1% of habitat heavily eroded.	Record presence of signs of overgrazing or intensive fires in the activities list on the field form.	Yes
Rationale for limiting standards to specified parts of the site					
Rationale for site-specific targets (including any variations from generic guidance)					
Rationale for selection of measures of condition (features and attributes for use in condition assessment) **(**The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).					
The area of bare ground minimum percentage cover has been increased for dry heath above that in national guidance for heathland to reflect the requirements for Annex I SPA bird species (woodlark) in the published habitat guidance for birds (EN 2003a) and to make compatible with requirements for invertebrates from the published guidance (EN 2006). Maximum ranges have been maintained to protect the heathland habitat. Additional points, and slight modifications to requirements for Gorse have been made to heathland habitat guidance to reflect requirements for Dartford warblers in the published habitat guidance for birds (EN 2004a). The Thames Basin Heaths SPA has more than ¼ of all UK Dartford warblers. The invertebrate targets for habitat have been taken using CSM guidance (2006) adjusted slightly to make compatible with heathland CSM guidance.					

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Other Notes					

REFERENCES:

- NVC data from EPR (2002). *Thursley, Ash, Pirbright & Chobham cSAC Chobham Common SSSI: Phase 2 NVC Habitat Survey*. EPR, Winchester
- Nature Conservancy Council (1989) *Guidelines for Selection of biological SSSIs*. Nature Conservancy Council, Northminster House, Peterborough
- English Nature, (2004a) *Generic Guidance on objective setting and condition assessment – Birds.* Northminster House, Peterborough
- English Nature (2003a) *Generic Guidance on objective setting and condition assessment – Additional birds guidance.* Northminster House, Peterborough
- English Nature (2003b) *Lowland Heathland SSSIs: Guidance on conservation objectives setting and condition monitoring*. English Nature Research Report Number 511, Northminster House, Peterborough.
- English Nature (2006) *Invertebrates – Provisional Guidance for England*. Northminster House, Peterborough
- English Nature (2005) *Generic Guidance on objective setting and condition assessment – Freshwater*. Northminster House, Peterborough

Table 3b Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **lowland wet heath** habitats at this site in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	
Site-specific standards defining favourable condition	

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Lowland wet heathland M16. Also includes H3, M21 (1)	Vegetation structure: growth phase composition for ericaceous spp.	Visual assessment of cover, using structured walk or transects	**Favourable condition** if Presence of heather in all stages of growth.	No one growth form should be dominant. Annual variation and succession should be accounted for within the targets. This attribute should be assessed only where it is possible to differentiate the growth phases.	Yes
	Bare ground (%)	Visual assessment of cover, using structured walk or transects	**Favourable condition** if At least 1% but not more than 10% cover of the area of the feature should consist of muddy exposed bare ground	Bare ground should form a patchwork with vegetation and be present mainly in south-facing slopes. Exclude rock, stone, litter or bryophyte/lichen mats or heavily trampled soil.	Yes
	Vegetation composition: bryophytes and lichens	Visual assessment of cover, using structured walk or transects	**Favourable condition** if >10% cover of Sphagna (including *Sphagnum compactum*) >5% cover of lichens (if naturally present)	Not applicable on all sites.	Yes
	Negative indicators: Species	Visual assessment	**Favourable condition** if <10% *Ulex europaeus*	Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes
	Vegetation composition: dwarf shrubs	Visual assessment of cover, using structured walk or transects	**Favourable condition** requires at least two species of dwarf shrubs present and at least frequent.Dwarf-shrubs include: *Calluna vulgaris, E.*	In naturally species-poor sites the presence of just one dwarf-shrub species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
			cinerea, E. tetralix, Ulex gallii, U. minor, Vaccinium spp.		
	Vegetation structure: % cover of dwarf shrubs	Visual assessment of cover, using structured walk or transects	**Favourable condition** if Dwarf shrub cover 25-90% (see section 10.4)Dwarf-shrubs include: *Calluna vulgaris, Erica ciliaris, E. cinerea, E. tetralix, E. vagans, Ulex gallii, U. minor, Vaccinium spp.*	Assess over whole feature. Annual variation and succession should be accounted for within the targets.	Yes
	Vegetation composition: graminoids	Visual assessment of cover, using structured walk or transects	**Favourable condition** requires At least 1 species at least frequent and 2 species at least occasional throughout the sward; Graminoids include: *Carex panicea, Carex pulicaris, Eleocharis spp., Eriophorum angustifolium, Juncus acutiflorus, Juncus articulatus, Molinia caerulea, Rhynchospora alba, Schoenus nigricans, Trichophorum cespitosum.*	Molinia no more than occasional and Schoenus at least occasional when naturally present. In naturally species-poor sites, the presence of just one graminoid species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes
	Vegetation composition: desirable forbs	Visual assessment of cover, using structured walk or transects	**Favourable condition** if At least 2 species at least occasional throughout the sward Desirable forbs include: *Anagallis tenella, Drosera spp., Galium saxatile, Genista anglica, Myrica gale, Narthecium ossifragum, Pinguicula spp., Polygala serpyllifolia, Potentilla erecta, Serratula tinctoria, Succisa pratensis*.	In naturally species-poor sites, the presence of just one forb species may be enough to meet the target. For species-rich sites a higher target may be appropriate (see text).	Yes
	Indicators of local distinctiveness: *Deschampsia setacea*	Visual assessment of extent of existing population & suitable habitat mapped in metres compared with base line map.	**Favourable condition** No loss of existing population (extent) area compared with baseline map.	This species can be found in unit 5 of the site. The plant is not a designated feature in its own right or as part of a plant assemblage. Therefore the site will not be classed as in unfavourable	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
			No more than 5% loss of suitable habitat compared with baseline map.	condition should it disappear from the site. For notable species (vascular plants) it is not intended to set a target for detailed species monitoring, rather to provide a rapid indication of presence/ absence and/or approximate extent, allowing for natural fluctuations in population size.	
	Negative indicators: Species	Visual assessment, using structured walk or transects	**Favourable condition** if <1% exotic species Negative indicators – exotics include: *Rhododendron ponticum, Gaultheria shallon, Fallopia japonica.*	Exotic species should be eradicated if possible.	Yes
	Negative indicators: Species	Visual assessment	**Favourable condition** if Less than 5% bracken (dense canopy)	Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes
	Negative indicators: Species	Visual assessment of cover, using structured walk or transects	**Favourable Condition** if Acrocarpous mosses < occasional	Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes
	Negative indicators: Species	Visual assessment	**Favourable condition** if < 1 % ragwort, nettle, thistles and other herbaceous spp Negative indicators – other negative herbaceous spp include: *Apium nodiflorum, Cirsium arvense, Digitalis purpurea, Epilobium spp*. (excl. *E. palustre*), *Glyceria fluitans, Juncus effusus, J. squarrosus, Oenanthe crocata, Phragmites spp., Ranunculus repens, Fallopia japonica, Senecio jacobaea, Rumex obtusifolius, Typha* spp., *Urtica sp*p.	Species in this list may be beneficial for a range of invertebrates and only become indicators of negative quality if they are over the established limit.	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
	Negative indicators: Species	Visual assessment	**Favourable condition** if < 10% trees & scrub Tree and scrub spp include: *Alnus glutinosa, Betula spp., Pinus spp., Prunus spinosa, Quercus spp., Rubus spp., Salix spp.*.	Up to 25% scrub cover can be accepted if indicated in conservation objectives or management plan.	Yes
	Negative indicators: signs of disturbance	Visual assessment, using structured walk or transects	**Favourable condition** if <1% of habitat showing signs of trampling/paths	See text for further details of overgrazing indicators. Burning should be carried out in a controlled manner on a 10-20 year cycle only.	Yes
	Negative indicators: signs of disturbance	Visual assessment, using structured walk or transects	No silt or leachate	See text for further details of overgrazing indicators.	Yes
	Negative indicators: signs of disturbance	Visual assessment, using structured walk or transects	No artificial drains	Drains can adversely affect hydrology	Yes
Rationale for limiting standards to specified parts of the site					
Rationale for site-specific targets (including any variations from generic guidance)					
Rationale for selection of measures of condition (features and attributes for use in condition assessment) **(**The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).					

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Other Notes					

REFERENCES:

- NVC data from EPR (2002). *Thursley, Ash, Pirbright & Chobham cSAC Chobham Common SSSI: Phase 2 NVC Habitat Survey*. EPR, Winchester
- Nature Conservancy Council (1989) *Guidelines for Selection of biological SSSIs*. Nature Conservancy Council, Northminster House, Peterborough
- English Nature, (2004a) *Generic Guidance on objective setting and condition assessment – Birds.* Northminster House, Peterborough
- English Nature (2003a) *Generic Guidance on objective setting and condition assessment – Additional birds guidance.* Northminster House, Peterborough
- English Nature (2003b) *Lowland Heathland SSSIs: Guidance on conservation objectives setting and condition monitoring*. English Nature Research Report Number 511, Northminster House, Peterborough.
- English Nature (2006) *Invertebrates – Provisional Guidance for England*. Northminster House, Peterborough
- English Nature (2005) *Generic Guidance on objective setting and condition assessment – Freshwater*. Northminster House, Peterborough

Table 3c Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **standing water** habitats at this site in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	
Site-specific standards defining favourable condition	

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Standing Waters	Lake substrate	Shoreline walk	Maintain natural shoreline. Maintain natural and characteristic substrate.	No more than 5% of lakeshore should be heavily modified. Increased sediment loads may result in smothering of coarse substrates with fine sediments. Fine sediments will be readily disturbed by movements in the overlying water column or passage of a plant sampling grapnel. Changes in plant community may result from enriched sediments without an accompanying change in water chemistry.	Yes
	Sediment load	Observe areas of increased erosion and deposition. [Establish sedimentation rates from cores or sediment traps where problems are suspected]	Maintain natural sediment load.	Increases in siltation could result from increased lake productivity, changes in catchment land-use (particularly over-grazing), lake level fluctuations, climatic fluctuations, or changes in sewage treatment.	Yes
	Vegetation composition: macrophyte community structure	Fixed point sector/transect sampling (boat or shore-based methods)	Characteristic zones of vegetation should be present. Maximum depth distribution should be maintained.	The maximum depth at which submerged vegetation is able to grow is a direct indicator of water clarity and also a general indicator of the status of the macrophyte community. A decrease in the maximum depth of macrophyte colonisation along a fixed point transect of greater than 10%	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
			At least the present structure should be maintained.	indicates a site moving out of favourable condition. Consideration should be given to e.g. *Isoetes* species, charophytes (particularly *Chara* species) and *Potamogeton* species. Generally, both emergent and floating/submerged vegetation should be present in the littoral zone. However, lakes with exposed shorelines and coarse stony substrates may lack emergent littoral vegetation.	
	Water quality	Existing data from Environment Agency monitoring programme. [Sampling should be carried out quarterly, ideally monthly. As a minimum samples should be taken in early spring.]	Stable nutrient levels appropriate to lake type. Mean annual total phosphorus concentration less than target for appropriate lake type (see Table 1 below) Stable pH/ANC values appropriate to lake type	Mean annual TP concentrations (based on at least quarterly measurements), or spring TP levels, should meet the targets appropriate for the lake type documented in the guidance. Where palaeolimnological or hindcast modelling techniques have been employed to reconstruct natural background phosphorus concentrations for a particular lake, these may suggest a different target TP concentration although it may be necessary to accept a small deviation from these background conditions. Alternatively, historical water chemistry data may exist for individual lakes and suggest that a more stringent target is appropriate. In such cases advice should be sought on deviating from the agreed family of targets given in Table 1. Where existing, site-specific TP concentrations are consistently lower than the standard appropriate for the habitat type, a lower target should be applied to prevent deterioration from current status. Upland lakes in catchments with a hard rock geology have limited buffering capacity and are	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
		Existing data or temperature/dissolved oxygen profiles Existing data, shoreline walk, sample of bloom	Adequate dissolved oxygen levels for health of characteristic fauna No excessive growth of cyanobacterial or green algae.	thus susceptible to acidification. There may be impacts on invertebrate and fish populations at pH levels lower than 5.5. However, dystrophic lakes on peat may have water chemistry more acidic than this. Deep or sheltered lakes exhibit seasonal stratification of temperature and oxygen levels. In eutrophic lakes in which thermal stratification occurs, summer oxygen levels in the hypolimnion may be very low, encouraging phosphorus release from the sediments and impacts upon the biota. There should be no evidence of excessive blue-green or green algal blooms. In low nutrient waters, blooms would not be expected to occur.	
	Indicators of local distinctiveness: *Pilularia globulifera*	Visual assessment of extent of existing population & suitable habitat mapped in metres compared with base line map.	**Favourable condition** No loss of existing population (extent) area compared with baseline map. No more than 5% loss of suitable habitat compared with baseline map.	This species can be found in unit 8 of the site. The plant is not a designated feature in its own right or as part of a plant assemblage. Therefore the site will not be classed as in unfavourable condition should it disappear from the site. For notable species (vascular plants) it is not intended to set a target for detailed species monitoring, rather to provide a rapid indication of presence/ absence and/or approximate extent, allowing for natural fluctuations in population size.	
	Indicators of local distinctiveness: *Eleocharis acicularis*	Visual assessment of extent of existing population & suitable habitat mapped in metres compared with base line map.	**Favourable condition** No loss of existing population (extent) area compared with baseline map. No more than 5% loss of suitable habitat compared with baseline map.	This species can be found in unit 8 of the site. The plant is not a designated feature in its own right or as part of a plant assemblage. Therefore the site will not be classed as in unfavourable condition should it disappear from the site. For notable species (vascular plants) it is not intended to set a target for detailed species monitoring, rather to provide a rapid indication of presence/	

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
				absence and/or approximate extent, allowing for natural fluctuations in population size.	

Rationale for limiting standards to specified parts of the site

Rationale for site-specific targets (including any variations from generic guidance)

Rationale for selection of measures of condition (features and attributes for use in condition assessment)

(The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).

Other Notes

REFERENCES:

- NVC data from EPR (2002). *Thursley, Ash, Pirbright & Chobham cSAC Chobham Common SSSI: Phase 2 NVC Habitat Survey*. EPR, Winchester
- Nature Conservancy Council (1989) *Guidelines for Selection of biological SSSIs*. Nature Conservancy Council, Northminster House, Peterborough
- English Nature, (2004a) *Generic Guidance on objective setting and condition assessment – Birds.* Northminster House, Peterborough
- English Nature (2003a) *Generic Guidance on objective setting and condition assessment – Additional birds guidance.* Northminster House, Peterborough
- English Nature (2003b) *Lowland Heathland SSSIs: Guidance on conservation objectives setting and condition monitoring*. English Nature Research Report Number 511, Northminster House, Peterborough.
- English Nature (2006) *Invertebrates – Provisional Guidance for England*. Northminster House, Peterborough
- English Nature (2005) *Generic Guidance on objective setting and condition assessment – Freshwater*. Northminster House, Peterborough

Table 3d Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **outstanding invertebrate assemblage** habitats at this site in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	

Site-specific standards defining favourable condition

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Outstanding assemblages of invertebrates Broad assemblage type: F11 unshaded early successional mosaic Specific assemblage type: F111 bare sand and chalk Broad assemblage type: F22 scrub-heath mosiac (Proxy habitat table = dry heathland)	Sample Based: Vegetation heterogeneity Diverse surface topography of vegetation types	Record Structural Recording Surveys (SRS) of 6m radius at sample stops to determine number of structural surfaces and representation of preferred surfaces within the assessed unit. Preferred surfaces are: • Bare ground or sparse lichen/bryophyte cover. (Present in 20% of SRSs.) • Lichen/bryophyte cover – (ideally less than 100% with intervening bare ground)(present in 20% of SRS's). • Very short grass/heather (ideally less than 100% with intervening bare	**Favourable condition:** • A single surface present in no more than 50% of SRSs. • More than 4 different Surfaces present in at least 20% of SRSs.	Heathland systems are best dealt with from best dealt with from July onwards, to allow the non-ericaceous vegetation to bulk up. Preferred features are micro-habitat features which should always be targeted during an assessment. These should be recorded and mapped. The preferred features for this assemblage are: • Paths & tracks with mild erosion, • Micro-cliffs, • Sand pits and turf cuttings, • Rabbit warren areas, scrapes & burrows • Scrub margin, • Sunny gaps in scrub / heathy woodland • Flowery areas, including those on other habitats (verges, ruderal etc) including 'unwelcome' weeds such as ragwort and thistles • Isolated small trees Negative factors should be regarded as mandatory parts of the condition assessment process. If a preferred	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
		ground). • Longer grass/building phase heather. • Tussock grasses, sparse bracken, mature heather Possible preferred surfaces (depending on fauna and circumstances) include: • Young scrub (to 2.5m) e.g. Birch,sallow, oak saplings etc. (present in 10% of SRS's)		feature is significantly impacted by a negative factor then the unit should fail. The presence of negative factors on the rest of the unit depends on the level of impact, whether it is increasing/ declining, and its location. Negative factors for this assemblage include: • Churned bare sand – e.g. by horses & motorbikes • Change from grazing to mowing or burning • Over-zealous scrub removal or elimination • Overenthusiastic erosion control on firm paths & tracks • Path surfacing with chippings, tarmac, woodchip etc • Very extensive stands of uninterrupted uniform single phase heather or any other 'monoculture' • Invasive species - Rhododendron, pine, large stands of rosebay willow herb, pirri-pirri bur, very extensive stands of bracken, hair grass etc.	
	Unit based: Vegetation heterogeneity : Scrub	Record the frequency and Percentage cover of all scrub species considered together. Visual assessment of cover of whole unit using structured walk or transects. Aerial photography will help monitor gross change but will not record seedlings.	**Favourable Condition if:** Less than 10% total cover of wet heath within unit as Scrub, less than 15% of Dry heath as Scrub. Within total cover of scrub 50% of scrub in small blocks, 50% large blocks At least 10% should be new established scrub, but this should	Scrub only includes native non invasive species such as dwarf gorse, young birch under 2.5m high, willow scrub in wetter areas etc….	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
			be balanced by removal of tall blocks of scrub of equivalent area elsewhere on site		
	Early Successional Surface (ESS) horizontal	Percentage cover of bare ground Percentage of ESS unshaded Aspect of Bare ground (% southerly) Slope of bare ground (cliff or slope of flat vertical/ microcliffs) % bare ground Churned	**Favourable Condition:** At least 5% but not more than 10% cover of the area of the feature should consist of firm, sunlit, horizontal, sloping or vertical, exposed bare ground, with no more than 1% churned. At least 10% of total bare ground area to be in form of non-flat surfaces (vertical microcliffs or slopes) At least 20% of bare ground to be unshaded southerly aspect.	ESSs are completely bare or very sparsely vegetated with very short cover (sand or peat on heathlands).	Yes
	Dead organic matter litter	Record percentage cover of litter layer of grass/sedge or heather litter (**Excluding** Molinia) >1cm depth	**Favourable condition if:** 5%-10% of Ericoid layers with litter layer beneath in dry heath.		Yes
	Cover – seed heads	Percentage of site where seed heads and hollow stems are able to persist through winter	**Favourable condition if:** Unit surface with more than 15% of seed heads over winter.		Yes
	Nectar sources (See floweriness table in CSM guidance)	Record percentage occupation of scrub able to flower throughout the year.	**Favourable condition if:** At least 10% of scrub able to flower in spring and early summer. No loss of early spring flowering scrub species (though location and extent may vary).		Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Rationale for limiting standards to specified parts of the site					
Rationale for site-specific targets (including any variations from generic guidance)					
Rationale for selection of measures of condition (features and attributes for use in condition assessment) **(**The selected vegetation attributes are those considered to most economically define favourable condition at this site for the broad habitat type and any dependent designated species).					
Other Notes					

REFERENCES:

- NVC data from EPR (2002). *Thursley, Ash, Pirbright & Chobham cSAC Chobham Common SSSI: Phase 2 NVC Habitat Survey*. EPR, Winchester
- Nature Conservancy Council (1989) *Guidelines for Selection of biological SSSIs*. Nature Conservancy Council, Northminster House, Peterborough
- English Nature, (2004a) *Generic Guidance on objective setting and condition assessment – Birds.* Northminster House, Peterborough
- English Nature (2003a) *Generic Guidance on objective setting and condition assessment – Additional birds guidance.* Northminster House, Peterborough
- English Nature (2003b) *Lowland Heathland SSSIs: Guidance on conservation objectives setting and condition monitoring*. English Nature Research Report Number 511, Northminster House, Peterborough.
- English Nature (2006) *Invertebrates – Provisional Guidance for England*. Northminster House, Peterborough
- English Nature (2005) *Generic Guidance on objective setting and condition assessment – Freshwater*. Northminster House, Peterborough

Table 3e Site-Specific definitions of Favourable Condition

CONSERVATION OBJECTIVE FOR THIS HABITAT / GEOLOGICAL SITE-TYPE	To maintain the **outstanding Odonata assemblage** habitats at this site in favourable condition, with particular reference to relevant specific designated interest features. Favourable condition is defined at this site in terms of the following site-specific standards:
Site-specific details of any geographical variation or limitations (where the favourable condition standards apply)	
Site-specific standards defining favourable condition	

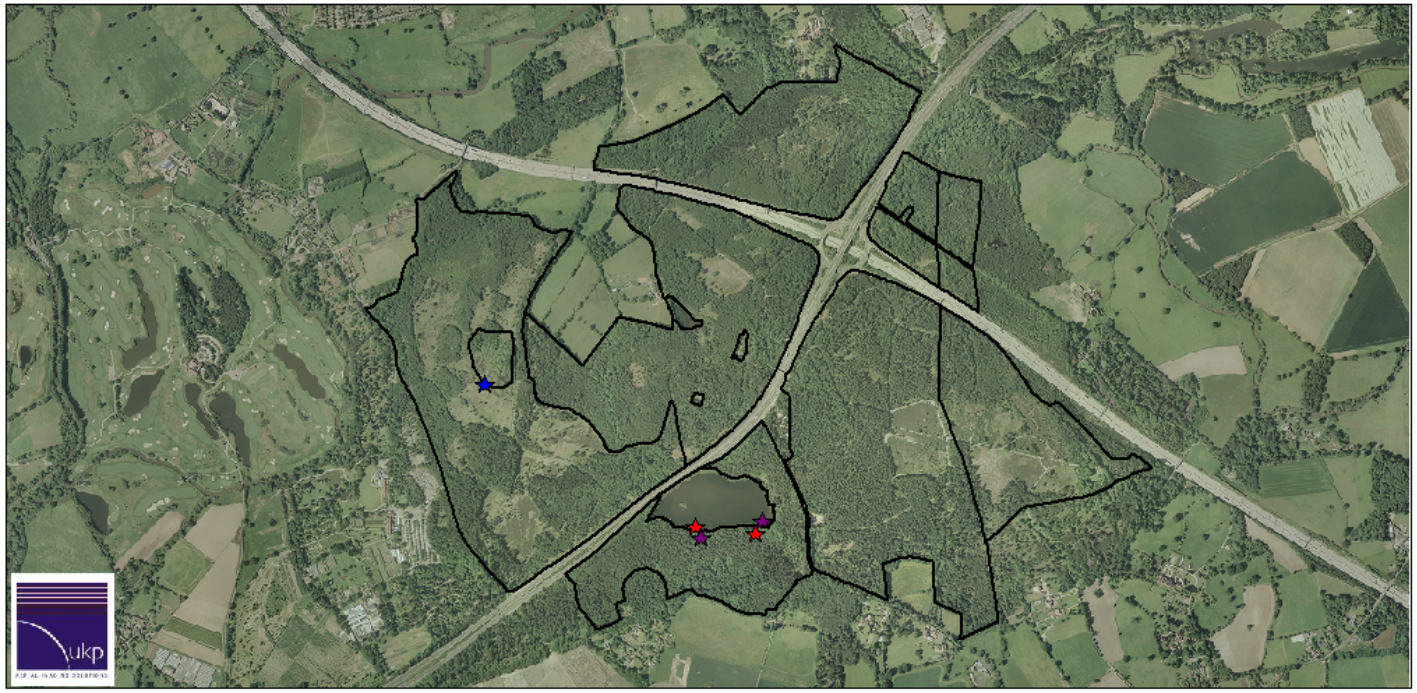
Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
Odonata assemblage including: *Somatachlora metallica, Sympetrum sanguineum, Orthetrum coerulescens, Sympetrum scoticum* (Proxy habitat table = ponds, pools, ditches, reens and lakes)	Vegetation heterogeneity Diverse surface topography of vegetation types	Record Structural Recording Surveys (SRS) of 6m radius at sample stops to determine number of structural surfaces and representation of preferred surfaces within the assessed unit. Preferred surfaces for the water margins are: • Wet muds, peats or thin water covered substrates. Typically bare, maybe with algal mats, sparse higher plants. • Marginal hygrophilic vegetation with typical species including *Lycopus, Scutellaria* etc and grazed grassy vegetation. Possible preferred surfaces for the water margins (depending	• Which surfaces and layers are required critically depends on the successional stage required. • Single surface present in no more than 5 out of 10 SRSs. • 3 or more different surfaces present in at least 20% of SRSs.	Wetland systems should generally be assessed between July and September, as it is important for the vegetation to reach its full surface expression before assessing it. Preferred features are micro-habitat features which should always be targeted during an assessment. These should be recorded and mapped. The preferred features for this assemblage are: • Good benthic vegetation structure (in oligotrophic waters.) • Complex structure of submerged vegetation (where appropriate.) • Areas with high proportion of macrophytes with floating leaves. • Any emergents with abundant flowers. • Small patches of marginal scrub or trees. • Fallen wood in water. • 'Beach' areas of bare wet sediment. Negative factors should be regarded as mandatory parts of the condition assessment process. If a	Yes

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
		on fauna and circumstances) include: • Young to medium-aged scrub - often maintained by rotational coppice. Typical species include marginal *Salix spp, Alnus, Frangula.* Preferred layers for the water body are: • A water column layer with typical species including *Ceratophyllum, Calitriche, Myriophyllum, Potamogeton spp.* • A water surface layer with typical species including *Nuphar, Nymphaea Stratiotes,* crowfoots *Ranunculus etc Glyceria fluitans, Polygonum amphibium.* • A low emergent layer with typical species including *Alisma, Ranunculus flammula, Mentha, etc Eleocharis.* Possible preferred layers for the water body (depending on fauna and circumstances) include:		preferred feature is significantly impacted by a negative factor then the unit should fail. The presence of negative factors on the rest of the unit depends on the level of impact, whether it is increasing/ declining, and its location. Negative indicators for this assemblage include: • Steeply shelving banks. • Deepening of shallow water. • Excessive stock access to banks. • Eutrophication characterised by green algal blooms. • Addition of large fish (trout & coarse fish) to otherwise fish-free water. • Removal of fallen timber from water. • Excessive marginal trees and scrub leading to excess shading >50% of margin. • Aquatic and marginal invasive species - *Azolla, Lemna minuta, Crassula, Hydrocotyle* etc.	

Criteria feature	Attribute	Measure	Site-specific Targets	Comments	Use for CA?
		• Benthic layer with typical species including *Chara spp, Lobelia, Littorella*			
	Proxy Habitat monitoring Vegetation cover	Percentage cover emergent vegetation	**Favourable condition**: if emergent vegetation cover between 15%- 40%.		Yes
	Proxy Habitat monitoring Vegetation cover	Percentage cover submerged vegetation	**Favourable condition:** 30-50% of pond with submerged vegetation cover.		Yes
	Proxy Habitat monitoring Water Shading	Percentage of water's edge shaded by trees and shrubs	**Favourable condition**: no more than 25-30% of water shaded.	Some water margins should have 30-60% shading by trees for the brilliant emerald (*Somatochlora metallica*). However this clashes with the other species requirements. Therefore the majority of the open water should have no more than 25-30% of water shaded, but some water margins around Boldermere Lake should have 30-60% shading by trees for the brilliant emerald (*Somatochlora metallica*).	Yes
Rationale for limiting standards to specified parts of the site					
Rationale for site-specific targets (including any variations from generic guidance)					

Ockham and Wisley SSSI

Species locations



Scale 1:12500 Map 1 of 1

0 250 500 750m

0 625 1250 1875m

Drawn by: Jo Clarke
Date: 24/12/2007
Ref: tq07655892

Grid North

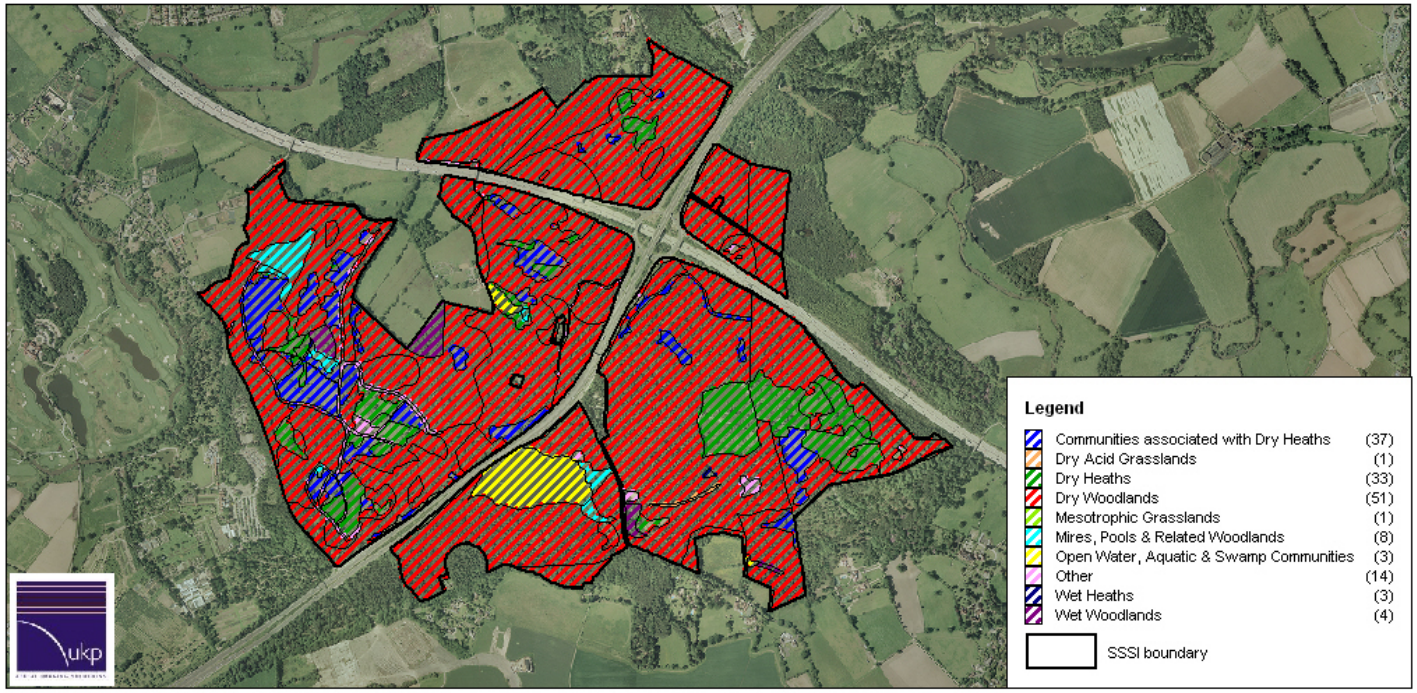
Natural England
Phoenix House
32-33 North Street
Lewes
East Sussex
BN7 2PH

Legend

- *Eleocharis acicularis*
- *Pilularia globulifera*
- *Deschampsia setacea*
- SSSI boundary

Ockham and Wisley SSSI

Conservation Objectives - Vegetation Types



Scale 1:15000 Map 1 of 1

0 300 600 900m
0 250 500 750yd.

Drawn by: Jo Clarke
Date: 18/1/2008
Ref: tq07825889

Grid North

Natural England
Phoenix House
32-33 North Street
Lewes
East Sussex
BN7 2PH

Appendix 6

Table of HLS Features/Objectives/Prescriptions & Projects

Name of Feature	Present Status	Objective and Attributes	Objective and Attributes	Objective and Attributes	Prescriptions	Project	Risk Assessments	Monitoring
1. Lowland Dry Heath		**HO1**	**HO2**	**HO3**				
Lowland Dry Heath (European Dry Heaths)		**HLS** - Cover of dwarf shrubs, at least 2 species, should be between 25% and 95%. Produce a balanced range and spread of dwarf shrub classes by cutting and removing, with occasional small winter burns in appropriate areas. Cutting and burning must include a number of small patches of vegetation every year. Up to 5% burn and 10% cut. Wide range of age classes which should include between 10-40% pioneer, 20-80% building/mature and 5-30% degenerate with <10% dead heather. At least 10% should remain unburnt.	**HLS** - Cover of dwarf shrubs should be between 25-90%. Remove areas of scrub and arisings, or burn on metal sheets and remove ash. Control unbrowsed regrowth with herbicide but do not stump winch. **Control scrub so cover is <10% by year 10.** Restore a balanced range of dwarf shrub ages by burning, cutting or removing a number of patches every year. Each area should be less than 0.5ha. Between 10-40% pioneer, 20-80% building/mature and 5-30% degenerate with <10% dead heather. Recently burnt areas should cover less than 5%.	**HLS** - By year 5, cover of dwarf shrubs should be between 10-90%. By year 10, cover of at least 2 species of dwarf shrub should be between 25-90%. Litter layer removed where greater than 5cm but mineral soil minimally disturbed. Where litter layer less than 5cm, disturb to stimulate germination. Clear-fell trees. Remedy soil compaction before seeding. Control scrub so cover is <15% for dry heath. Some scrub retained.	**HO1** - Every year = cut 10% area or control burn 5%. Control scrub so less than 10% in year 10. Each area <0.5ha. **HO2** - Every year = cut 10% area or control burn 5%. Each area <0.5ha. Control scrub so less than 10% in year 10. **HO3** - Scrape areas >5cm litter, seed with cut heather. Control scrub so <15% in year 10.	**HO1 & HO2** - Every year: 2007-2012. Cutting = 1 man with cutter collector (Borrow from Queenwood or hire (£150/day) for 2 weeks/year. Control burning = 2 people with flame torch (SWT purchase)/cutter collector/water bowser/firebeaters for 1 week/year. Scrub control with volunteers. **HO3** - Seed with cut heather from HO1/2 areas. Employ Euroforest to fell according to 2007-2011 felling plan and scrape (£250) where necessary. SWT Countryside team tractors to remove piled humus	In place for cutting, review for controlled burning.	Record via CMS, sketches, quadrats and fixed point photography.
Fire Control Measures		**HLS** - Firebreaks maintained, or rotated, with new ones created and old ones abandoned.	**HLS** - Provide fire control measures, including fire breaks, a fire plan and an adequate water supply. By year 5 a firebreak network should be established over at least 50% of the land.	**HLS** - Provide fire control measures, including fire breaks, a fire plan and an adequate water supply.	**HO1 & HO2** - Every year = mow all firebreaks in September-October with cutter/collector or chain mower. Every 3rd year, cut back trees. **HO3** - Identify and create firebreaks.	Year 1 produce Fire Plan for whole site. **HO1 & HO2** - Every year = mow firebreaks in September-October with cutter/collector or chain mower. 1 man & machine 1 week. Every 3rd year, cut back trees. 2 men, 1 week. **HO3** - scrape firebreaks as required by Fire Plan. Employ Euroforest.	In place	Record via Fire Plan, review after unintended fire.
Ulex europaeus - European Gorse		**HLS** - Manage by cutting and removing selected stands, to ensure that vigour is maintained and a full range of age classes represented, the majority of which are between 50-150cm tall. Regrowth protected from rabbits where necessary. Cover of Common or dwarf gorse should be between 5-10%.	**HLS** - Cover should be between 2-10%. Managed to give a range of stand heights, the majority of which are between 50-150cm tall.	**HLS** - By year 10 cover should be between 5-25% on dry heath. Managed to give a range of stand heights, the majority of which are between 50-150cm tall.	**HO1 & HO2** - Cut 5% European Gorse per year. Allow to coppice. Monitor for rabbit damage. **HO3** - Allow Gorse to develop.	**HO1 & HO2** - Every year: 2007-2012. Cut with site staff/volunteers. 1 work party/year. **HO3** - Every year: 2007-2012, monitor.	In place	Record via CMS/Quadrats.
Ulex minor – Dwarf Gorse	Frequent	To increase to be an abundant shrub. **HLS** - Manage by cutting and removing selected stands, to ensure that vigour is maintained and a full range of age classes represented, the majority of which are between 50-150cm tall. Regrowth protected from rabbits where necessary. Cover of Common or dwarf gorse should be between 5-10%.	**HLS** - Cover should be between 2-10%. Managed to give a range of stand heights, the majority of which are between 50-150cm tall.	**HLS** - By year 10 cover should be between 5-25% on dry heath. Managed to give a range of stand heights, the majority of which are between 50-150cm tall.	**HO1 & HO2** - Include dwarf gorse areas within 10% cut or 5% burn areas from above. **HO3** - Allow gorse to develop.	**HO1 & HO2** - Include dwarf gorse areas within 10% cut or 5% burn areas from above project details. **HO3** - Monitor developing gorse.	In place	Record via CMS/Quadrats.
Bare Ground		**HLS** - Bare ground to be between 5-10%.	**HLS** - Where no bare ground exists, remove turf from small 5-20m² areas or strips scattered in unshaded areas across the site. Bare ground to be between 5-10%.	**HLS** - Bare ground to be between 5-10%.	**HO1, HO2 & HO3** - Turf cut or scrape 1% every year.	**HO1, HO2 & HO3** - Turf cut or scrape 1% every year by using Queenwood machinery and labour. If this arrangement ends contract in turf cutting machine or use small digger.		Record via CMS/Quadrats.

Name of Feature	Present Status	Objective and Attributes	Objective and Attributes	Objective and Attributes	Prescriptions	Project	Risk Assessments	Monitoring
Bracken		**HLS** - Dense Canopy of bracken managed to less than 10% on dry heath.	**HLS** - Cover of bracken reduced by 50-100%.	**HLS** - In areas of >10% bracken cover under the canopy to be removed spraying should be undertaken before felling. Further treatments should be continued for at least two years after tree removal. Dense bracken cover reduced to <10% on dry heath.	**HO1 & HO2** - Spray all bracken on open heath 2007-8. Spot spray regrowth in years after. **HO3** - Spray areas to be clear felled the summer before they are cut. Spray for following two years then spot spray regrowth.	**HO1 & HO2** - use Hayes Forestry contractors to spray bracken on open heath and areas already cleared in 2006-7 and to spray areas to be felled in 2007-8. **HO3** - 2008-11, Use contractors to spray clear fell areas the year before these blocks are felled and to then use them to achieve 95% kill across these blocks.	In Place	Record via fixed point photography.
Bryophytes/Lichens		**HLS** - Cover of bryophytes/lichens to be at least 10% excluding *Campylopus introflexus* which must be less than 10% overall.	**HLS** - Cover of bryophytes/lichens to be at least 10% excluding *Campylopus introflexus* which must be less than 10% overall.		**HO1, HO2 & HO3** - Monitor and if necessary leave long areas of heath.	**HO1, HO2 & HO3** - Monitor and if necessary leave long areas of heath. Site staff to monitor HO1 & HO2 areas once a year. (Accept that there is no recognised management technique for removing *Campylopus introflexus.*)	In Place	Record via CMS/Quadrats/Fixed Point Photography.
Rhododendron ponticum - Rhododendron		**HLS** - By year 3 cover to be reduced to <10% in the infested area. By year 10 cover to be <5%. Treatment by cutting/mulching and stump treatment. Control done outside the bird nesting season with appropriate care taken near the Sand Lizard colony.	**HLS** - By year 3 cover to be reduced to <10% in the infested area. By year 10 cover to be <5%. Treatment by cutting/mulching and stump treatment. Control done outside the bird nesting season with appropriate care taken near the Sand Lizard colony.	**HLS** - By year 3 cover to be reduced to <10% in the infested area. By year 10 cover to be <5%. Treatment by cutting/mulching and stump treatment. Control done outside the bird nesting season with appropriate care taken near the Sand Lizard colony.	**HO1, HO2 & HO3** - 2007-12 Every year spot treat regrowth of Rhododendron on site. **Rest of site** - Use contractors to clear, burn and treat large infestation areas in Hatchford Woods, north east of Telegraph Hill and Wisley North.	**HO1, HO2 & HO3** - 1 member of Site staff to spend 1 week per year checking and spraying open heath areas in summer. **Rest of site** - Use Euroforest (4-5 days per year, £1000) to dig up and burn large plants. Monitor and respray with contractors or Countryside Team.		Record via CMS and survey.
Gaultheria shallon - Shallon		To be removed from site. **CO** - Exotic species should be eradicated if possible.			**Rest of site** - Eradicate Shallon encroaching on Wisley North by spraying.	**Rest of site** - Use contractors dealing with Rhododendron on Wisley North to spray Shallon beds. 1 day/year every year.	In Place	Record via CMS and survey.
Calluna vulgaris – Ling	Dominant	To remain as the dominant dwarf shrub.						
Erica cinerea – Bell Heather	Abundant	To remain as an abundant dwarf shrub.						
Agrostis capillaris – Common Bent Grass	Abundant	To remain as an abundant grass						
Deschampsia flexuosa – Wavy Hair Grass	Abundant	To remain as an abundant grass						
Genista anglica – Petty Whin	Absent	To be reintroduced to suitable habitat			**C. 5 & 6** - Investigate requirements for Petty Whin and reintroduce from seed, colonies at Chobham and Ash Ranges.	**C. 5 & 6** - 2008, 1 day. Collect seed and introduce to selected area.		Record via GPS, CMS and quadrat.
Teesdalia nudicaulis – Shepherd's Cress	Absent/Unknown	To be surveyed to determine population viability			**Rest of site** - Vegetation survey.	**Rest of site** - Vegetation survey. 5 days per year.		Monitor by CMS, GPS, quadrat and photographs.
Plebejus argus – Silver-studded Blue	Rare	To be monitored and reintroduced as necessary to ensure a self sustaining population on both Wisley & Ockham.	**CO** - Species presence breeding on site each year of cycle. Unfavourable condition: if not present in any one of 6 year cycle. Unfavourable if more than 25% loss in core habitat in any one reporting cycle. Involve Butterfly Conservation.		**C. 10** - Liaise with Butterfly Conservation and NE and organise fresh introduction when habitat work is advanced.	**C. 10** - June 2009, 2 days. Meet with BC on site, apply for NE consent, transfer individuals to Ockham and release.		Record with BC.
Cicindela sylvatica – Wood Tiger Beetle	Absent	To be reintroduced to suitable habitat.						

Name of Feature	Present Status	Objective and Attributes	Objective and Attributes	Objective and Attributes	Prescriptions	Project	Risk Assessments	Monitoring
Caprimulgus europaeus – Nightjar (SPA species)	Rare	Numbers of churring males to increase from 2007 levels (2 pairs)	**CO** - Maintain population within acceptable limits: Maintain the population above 75% (**2 pairs**) of that at designation. At Designation there were **2 pairs**. Loss of 25% (**1 pair**) or more unacceptable .					
Sylvia undata – Dartford Warbler (SPA species)	Rare	Numbers of breeding pairs to increase from 2007 levels	**CO** - Maintain population within acceptable limits: Maintain the population above 75% (**1 pair**) of that at designation. At Designation there were **0 pairs**. Loss of 25% (**1 pair**) or more unacceptable .					
Lullula arborea – Woodlark (SPA species)	Rare	Numbers of breeding pairs to increase from 2007 levels	**CO** - Maintain population within acceptable limits: Maintain the population above 75% (**1 pair**) of that at designation. At Designation there were **0 pairs**. Loss of 25% (**1 pair**) or more unacceptable .					
Lacerta agilis – Sand Lizard	Occasional	Expansion of colony to continue whilst maintaining core range. Reintroduction to be considered to Wisley						
Falco subbuteo – Hobby	Rare	Breeding pairs to continue to breed with monitoring and ringing to continue						
2. Lowland Wet Heathland								
Lowland Wet Heathland (North Atlantic Wet Heaths with Erica tetralix/Outstanding invertebrate assemblage of mature heathland/Outstanding invertebrate assemblage of early successional stages)		**HLS** - Cover of dwarf shrubs, at least 2 species, should be between 25% and 95%. Produce a balanced range and spread of dwarf shrub classes by cutting and removing, with occasional small winter burns in appropriate areas. Cutting and burning must include a number of small patches of vegetation every year. Up to 5% burn and 10% cut. Wide range of age classes which should include between 10-40% pioneer, 20-80% building/mature and 5-30% degenerate with <10% dead heather. At least 10% should remain unburnt.	**HLS** - Cover of dwarf shrubs should be between 25-90%. Remove areas of scrub and arisings, or burn on metal sheets and remove ash. Control unbrowsed regrowth with herbicide but do not stump winch. **Control scrub so cover is <10% by year 10.** Restore a balanced range of dwarf shrub ages by burning, cutting or removing a number of patches every year. Each area should be less than 0.5ha. Between 10-40% pioneer, 20-80% building/mature and 5-30% degenerate with <10% dead heather. Recently burnt areas should cover	**HLS** - By year 5, cover of dwarf shrubs should be between 10-90%. By year 10, cover of at least 2 species of dwarf shrub should be between 25-90%. Litter layer removed where greater than 5cm but mineral soil minimally disturbed. Where litter layer less than 5cm, disturb to stimulate germination. Clear-fell trees. Remedy soil compaction before seeding. Control scrub so cover is <10% for wet heath. Some scrub retained.				
Drainage		**HLS** - Installing new drainage, or modifying existing, not permitted unless agreed with NE advisor and with written SSSI consent.	**HLS** - Agree a plan with NE to reverse any drainage of wet heath or mire to restore original hydrology. After successful establishment no new drainage or modification permitted. Any works require separate consent.	**HLS** - Agree a plan with NE to reverse any drainage of wet heath or mire to restore original hydrology. After successful establishment no new drainage or modification permitted. Any works require separate consent.				
Bracken		**HLS** - Dense canopy of bracken managed so less than 5% on wet heath.	**HLS** - Cover of bracken reduced by 50-100%.	**HLS** - In areas of >10% bracken cover under the canopy to be removed spraying should be undertaken before felling. Further treatments should be continued for at least two years after tree removal. Dense bracken cover reduced to <5% on wet heath.				

Name of Feature	Present Status	Objective and Attributes	Objective and Attributes	Objective and Attributes	Prescriptions	Project	Risk Assessments	Monitoring
Ulex europaeus - European Gorse		**HLS** - Manage by cutting and removing selected stands, to ensure that vigour is maintained and a full range of age classes represented, the majority of which are between 50-150cm tall. Regrowth protected from rabbits where necessary. Cover of Common or dwarf gorse should be between 5-10%.	**HLS** - Cover should be between 2-10%. Managed to give a range of stand heights, the majority of which are between 50-150cm tall.	**HLS** - By year 10 cover should be <10% on wet heath. Managed to give a range of stand heights, the majority of which are between 50-150cm tall.				
Bryophytes/Lichens		**HLS** - Cover of bryophytes/lichens to be at least 10% excluding Campylopus introflexus which must be less than 10% overall.	**HLS** - Cover of bryophytes/lichens to be at least 10% excluding Campylopus introflexus which must be less than 10% overall.					
Calluna vulgaris – Ling	Dominant	To remain as the dominant dwarf shrub.						
Erica tetralix – Cross-leaved Heath	Abundant	To remain as an abundant dwarf shrub.						
GRAZING *Molinia caerulea* – Purple Moor Grass	Dominant	To decrease as a dominant grass. **HLS** - Graze with cattle suitable for the conditions, to suppress scrub and grasses during the main growing season. Adjust stocking density to ensure that any young heather is not damaged, or suppressed by other vegetation. No winter grazing between early September and mid May. Cover should be less than 25% of wet heath area and should display a variety of age classes and structural diversity. Supplementary feeding should be limited to mineral blocks.	**HLS** - Graze with cattle suitable for the conditions, to control scrub and grasses and establish a structural mosaic in dwarf shrub stands. Adjust stock density to ensure that vegetation does not suppress heather seedlings or plants, but avoids stock damage to them. Exclude winter grazing between early September and mid April, until dwarf shrubs achieve at least 25% cover. Supplementary feeding should be limited to mineral blocks.	**HLS** - Once clearance complete, start grazing with cattle in the summer. Where livestock are not available remove weeds by cutting. Adjust stocking density to ensure that any young heather is not damaged, or suppressed by other vegetation. Exclude winter grazing between early September and mid April, until dwarf shrubs achieve at least 25% cover. Supplementary feeding should be limited to mineral blocks.				
Deschampsia cespitosa – Tufted Hair Grass	Frequent	To remain as an frequent grass						
Sphagnum spp.	Occasional	To increase to become frequent in wet areas						
Osmunda regalis – Royal Fern	Rare	To safe guard existing plants and produce conditions for further plants to germinate						
Scutellaria minor – Lesser Skullcap	Occasional	To increase population to frequent						
Cirsium dissectum – Meadow Thistle	Absent	To be reintroduced to suitable habitat						
Salix repens – Creeping Willow	Occasional	To increase to become frequent in wet areas.						
Deschampsia setacea – Bog Hair Grass	Rare	To increase to become occasional in wet areas						
Metriotera brachyptera – Bog-bush Cricket	Occasional	To remain as an occasional species						
Asilus crabconifrmis – Robber Fly	Unknown	To be surveyed						
Neottia nidus-avis – Bird's Nest Orchids	Rare	To increase to become occasional in wet areas						
Asplenium scolopendrium – Hart's Tongue Fern	Rare	To increase to become occasional in wet areas						
Drosera rotundifolia – Round Leaved Sundew	Occasional	To increase to become frequent in wet areas						
Drosera intermedia – Oblong Leaved Sundew	Occasional	To increase to become frequent in wet areas						
Anagallis tenella – Bog Pimpernel	Rare	To increase to become occasional in wet areas						
Lophozia capitata – Large-celled Flapwort	Rare	To remain as a rare species.						
Rhynchospora alba – White-beak Sedge	Rare	To increase to become occasional in wet areas						

Name of Feature	Present Status	Objective and Attributes	Objective and Attributes	Objective and Attributes	Prescriptions	Project	Risk Assessments	Monitoring
3. Open Water (Waterbodies on Bagshot Beds, Boldermere is only notified body but include for Pond Farm Pond, Puck's Pond, Teal Pond and successional scrapes)								
Crassula helmsii - New Zealand Pygmy Weed								
Littorella uniflora – Shoreweed	Rare	To increase to become occasional in wet areas						
Hypericum elodes – Marsh St John's Wort	Occasional	To increase to become frequent in wet areas						
Baldellia ranunculoides – Lesser Water-plantain	Occasional	To increase to become frequent in wet areas						
Eleocharis acicularis – Needle Spike-rush	Occasional	To increase to become frequent in wet areas						
Pilularia globulifera – Pillwort	Absent	To increase to become occasional in wet areas						
20 spp. of *Odondata*	Present	Maintain and monitor	**CO** - Create suitable breeding conditions via new scrapes.			**CO** - Breeding confirmed in at least one year of monitoring cycle in all of breeding ponds.		**CO** - Presence of absence of breeding by transects walks of breeding ponds in late June. (Annually). Evidence of breeding includes either presence of larvae by pond dips, exuviae, teneral individuals close to breeding pond. Probable breeding includes observations of breeding behaviour (ovipositing or regular presence of both sexes). Observations within 3 years of monitoring date may be used for Condition
Leucorrhinia dubia – White-faced Darter	Absent	Produce suitable habitat for other species but accept that chances of natural/human induced recolonisation are slim						
Brachytron pratense – Hairy Dragonfly	Unknown	To be surveyed						
Sympetrum sanguineum – Ruddy Darter	Abundant	To remain as an abundant species	**CO** - Create suitable breeding conditions via new scrapes.					
Sterna hirundo – Common Tern	Rare	To increase to an occasional species						
Donacia spp. – 9 species of Reed Beetles	Occasional	To increase to become frequent						
4. Whole Area								
Outstanding invertebrate assemblage of mature heathland	Unknown	To be surveyed			**CO** - Specialist direct monitoring of assemblage score based on presence/absence of specified proportion of species typical of habitat listed in ISIS			**CO** - Monitor assemblage once in every 6 year monitoring cycle. This attribute is to be assessed through specialist survey
Outstanding invertebrate assemblage of early successional stages	Unknown	To be surveyed			**CO** - Specialist direct monitoring of assemblage score based on presence/absence of specified proportion of species typical of habitat listed in ISIS			**CO** - Monitor assemblage once in every 6 year monitoring cycle. This attribute is to be assessed through specialist survey
Diptera – True flies	Unknown	To be surveyed						
Thyidanthrax fenestratus – Bee Fly	Unknown	To be surveyed						
Tipula livida – Crane Fly	Unknown	To be surveyed						
Limonia inusta – Crane Fly	Unknown	To be surveyed						
Amara infima – Ground Beetle	Unknown	To be surveyed						

Name of Feature	Present Status	Objective and Attributes	Objective and Attributes	Objective and Attributes	Prescriptions	Project	Risk Assessments	Monitoring
Bycticus populi – Weevil	Unknown	To be surveyed						
5. Woodland								
Sorbus torminalis – Wild Service Trees	Rare	Produce conditions for remaining trees to seed or sucker but accept that trend is for this not to occur naturally						
Quercus robur & petraea – Historic Pedunculate and Sessile Oaks	Frequent	Manage veteran trees to ensure they remain frequent. Link to tree inspections						
Quercus ilex – Holm Oaks	Occasional	To remain as an occasional species						
Sequoiadendron giganteum – Wellingtonia	Rare	To remain as a rare species						
Sequoia sempervirens – Coast Redwoods	Occasional	To remain as an occasional species						
Apatura iris – Purple Emperor	Rare	To increase to be an occasional species						
Nemobius sylvestris – Wood Cricket	Abundant	To remain as an abundant species						
6. Grassland								
Rhinanthus minor – Yellow Rattle	Occasional	To increase to be a frequent species						
Alauda arvensis – Skylark	Frequent	To remain as a frequent species						
7. Archaeology								
General		**HLS** - Protect features. Do not place anything likely to cause ground disturbance on or near feature such as fences, feeders or water troughs. Do not allow the development of burrows. By year **2** stabilise and re-vegetate 40%-100% of eroded areas and then maintain permanent grass cover. Area of active burrows reduced by 40-100% by year 2.	**HLS** - Protect features. Do not place anything likely to cause ground disturbance on or near feature such as fences, feeders or water troughs. Do not allow the development of burrows. By year **3** stabilise and re-vegetate 40%-100% of eroded areas and then maintain permanent grass cover.	**HLS** - Protect features. Do not place anything likely to cause ground disturbance on or near feature such as fences, feeders or water troughs. Do not allow the development of burrows. By year **2** stabilise and re-vegetate 40%-100% of eroded areas and then maintain permanent grass/heather cover. Area of active burrows reduced by 40-100%. Cover of bracken reduced by 50-100%.				
Cockrow Hill Bronze Age round bell barrow		Maintain feature in good condition.						
A supposed Henge at Red Hill		Maintain feature in good condition.						
Chatley Heath Tower		Maintain feature in good condition						
Bowl barrow near Pond Farm		Maintain feature in good condition.						
Mausoleum		Restore feature to good condition						
8. Access								
Statutory BOAT, bridleway and footpath network		Maintain statutory Rights of Way						
Permissive routes		Reorganise and improve						
Car Parks		Reconsider and upgrade						
Informal parking		Reconsider and prevent						
Areas mapped under CROW		N/A						
Visitor attractions (Tower, mausoleum, Boldermere, Wisley airfield)		Maintain features in good condition						
Other access points onto the site		Reconsider						
Rights of passage		N/A						
Special Protection Area status		Link to reorganisation of permissive routes						

Name of Feature	Present Status	Objective and Attributes	Objective and Attributes	Objective and Attributes	Prescriptions	Project	Risk Assessments	Monitoring
Tree safety inspections		Carry out on zones 2 & 3 every year						
Relationship with external stakeholders		Maintain and improve						
Boldermere		Monitor, obtain funding and improve						
Public Sex Environment		Find solution to end the site's use as a PSE						

Appendix 7:

SITE RISK ASSESSMENT

Wisley Common, Ockham and Chatley Heaths

SITE LOCATION

Wisley Common, Ockham and Chatley Heaths cover an area of 830 acres and surround the intersection of the M25 junction 10/A3. It follows the route of the A3 from Red Hill Road in the north to the Ripley exit of the A3 in the south. The RHS gardens are on the south west edge of Wisley Common.

NEAREST ACCESS POINTS FOR THE SITE:

- Bolder Mere and Pond Car Park – off southbound A3 at junction with M25 into Old Lane. Surrey Street Atlas (SSA) p72 B1.
- Wren's Nest Car Park – off northbound A3 at junction with M25 into Wisley Lane SSA p72 B2.
- Chatley Heath Semaphore Tower – off Pointers Road SSA p72 E1.
- Pond Farm – off A3 slip road northbound SSA p72 B3.

SITE DESCRIPTION

The site comprises both wet and dry Lowland Heath, pine plantation, deciduous woodlands and a number of open water areas.

NEAREST TELEPHONE (MOBILE PHONE SIGNAL)

- A3 lay-by (Bolder Mere) Ockham Bites. Mobile signal is generally good but only moderate around Bolder Mere.

GRID REFERENCE

- TQ 078586

NEAREST ACCIDENT AND EMERGENCY HOSPITAL

- St. Peter's Hospital, Guildford Road, Chertsey, Surrey, KT16 0PZ

Tel: 01932 872000 Fax: 01932 874757 **(10km)**

- Royal Surrey County Hospital, Egerton Road, Guildford, Surrey, GU2 5XX

Tel: 01483 571122 Fax: 01483 537747 **(15 km)**

EMMERGENCY TELEPHONE NUMBERS

- Site Ranger (not Sat/ Sun): 07970 094416
- Pirbright HQ (not Sat/ Sun): 01483 795440

GENERAL HAZARDS

- Open water
- Electricity (overhead power lines) – from Pond Farm to A3 slip road access.
- It is regarded as a busy site with broad range of users/ visitors
- Heathland restoration – use of heavy machinery
- Implications of a Public Sex Environment (PSE)
- Uneven ground – rabbit holes, tree stumps, tussocks, etc
- Height restrictions on Wren's Nest and Pond car parks.

SURREY WILDLIFE TRUST
Risk Assessment Form - Site

Site Assessed:	Wisley and Ockham Common, and Chatley Heath	**Date:**	05-Nov-09
Site Use:	Staff, volunteers and public access		
Assessed By:	John Wilsher and Mark Pearson	**Next Assessment due:**	05-Nov-10

Type of Hazard	Likelihood of Occurrence	Hazard Severity	Risk Factor	Precautions Action to be taken to reduce the risk.	New Likelihood of Occurrence	New Hazard Severity	New Risk Factor
Uneven/unstable ground (e.g. rabbit holes, tree stumps, loose scree). Trips and falls.	2	3	6	Wear appropriate footwear with good grips and ankle support. Stick to paths where possible and do not run over uncertain ground. Check terrain visually or use a stick to probe route ahead. Where possible, manage vegetation to ensure that known hazards are visible.	1	3	3
Open Water a. Weil's disease, toxic algae, cryptosporidiosis, pollution.	2	3	6	Avoid contact if possible. If not cover any cuts/scratches and wear suitable PPE (waterproof gloves etc) Wash hands thoroughly after work and before eating/drinking/smoking.	1	3	3
Open water. b. Drowning.	2	5	10	Bolder Mere is an accessible, open body of water with little/ no current, relatively shallow water (1 metre at its deepest) and has gentle sloping gradient. Swimming by the public is actively discouraged by regular wardening by the ranger. Do not work near deep water alone, particularly if wearing waders. Use pole to test depth when wading. Wear suitable footwear to protect against sharp items underfoot. In or near deep water, ensure all involved can swim, wear appropriate PPE (e.g. life jackets) and have a rope/safety line available to help with rescue.	1	5	5
Ticks - Lyme Disease	2	3	6	Where possible, avoid moving through dense vegetation (particularly bracken) in summer. Keep skin covered; tuck shirts into trousers and trousers into socks. After work, inspect clothing and body for ticks: if any are found, remove and clean site with antiseptic. See doctor immediately if rash and/or flu-symptoms develop.	1	3	3
Overhead services	1	4	4	Avoid using tall machinery or siting bonfires within 9m of lines on wooden poles and 15m of lines on metal towers. Take care not to damage poles or supports. Refer to HSE Ag info sheet 8.	1	4	4

Type of Hazard	Likelihood of Occurrence	Hazard Severity	Risk Factor	**Precautions** Action to be taken to reduce the risk.	Likelihood of Occurrence	Hazard Severity	Risk Factor
Underground Services - Electricity/Gas/Water	1	4	4	If any digging or other ground penetration is involved, check with landowner & see services maps recently obtained from utilities companies before starting work. If any underground services are nearby (closer than 50m) ask utility company to identify on-site and mark line of services so digging within 1m can be prevented. Use metal detectors/CAT scanners only with trained operators and recognise that they will not detect alkathene gas or water pipes without a metal tracer that are in use in some places.	1	4	4
Personal attack to staff and the public. Areas subject to “cruising” – risk of confrontation.	1	3	3	Lone working should be discouraged wherever possible. Avoid confrontation and attempt to leave the scene of any potential aggressive situation. Keep personal valuables out of sight. Any violent or aggressive incidents should be reported immediately to the Police and management. Staff must be aware of the locations of a public phone if mobile phones are in poor reception areas.	1	3	3
Biological Hazards - a. Human/animal faeces such as toxicara (dog/cat), Hepatitis (Human) and general infection risk. Used condoms – sexually transmitted disease.	2	3	6	Undertake regular litter picking in the car parks and use specialised cleaning company for wider area when there is a build up of litter. Staff to use disposable gloves/litter picker or bag if handling any type of biological waste which should only be done in exceptional circumstances. Warn staff if working in contaminated area. Wear appropriate PPE (e.g. plastic rather than mesh visors). Wash hands and disinfect after work. Where possible, discourage fouling and consider dog waste bins.	1	3	3
b. Sharps	1	3	3	Carry out thorough inspection of sites where drug use is suspected before any work commences. Record all sharps finds and arrange for clinical disposal using a ‘Sharps Pack’. Seek immediate medical treatment if injured.	1	3	3
Hazards from/to grazing animals	2	3	6	The site has a high number of visitors and range of uses that must mix with grazing animals. The ranger must ensure there is a well maintained, effective boundary fence to prevent livestock straying. Erect suitable signs to inform the public of the presence of livestock on sites.	1	3	3

Type of Hazard	Likelihood of Occurrence	Hazard Severity	Risk Factor	**Precautions** Action to be taken to reduce the risk.	Likelihood of Occurrence	Hazard Severity	Risk Factor
Zoonoses	1	3	3	Zoonoses are infectious diseases that animals pass to humans, including staff, volunteers and visitors to Pond farm. For more details - see RA 1: General Site Assessment. Minimise the risk of infection by keeping stock healthy e.g. Vaccinate. Wear suitable protective clothing such as overalls when handling animals, good personal hygiene, immediately wash and dry all cuts and grazes and cover with a waterproof dressing.	1	3	3
Adders Venomous bite.	1	3	3	Staff to avoid known basking sites in spring + summer, particularly in the morning. Use sticks to beat vegetation + move noisily to encourage snakes to move away from the area. Do not attempt to handle any snake. N.B. Frimley Park Hospital is the local centre for treating snake bites.	1	3	3

Site Risk Assessment - Wisley & Ockham Commons

SURREY wildlife TRUST

Scale: 1:15000
Symbols indicative only

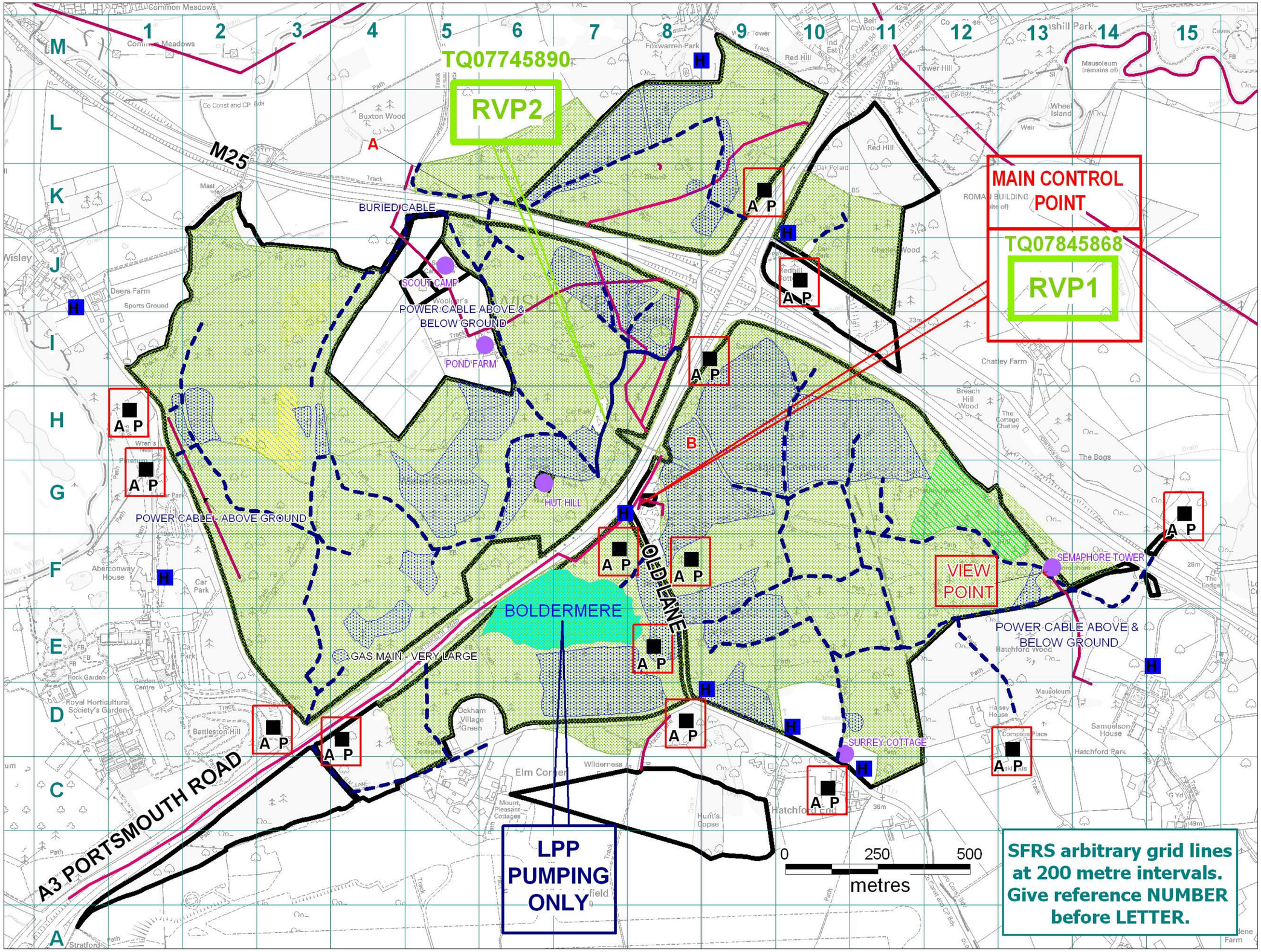
Key

- Site Boundary
- Emergency access point
- Water body
- Overground services
- Underground services
- Padlocked gate
- Opening height barrier

N

Prepared by: Surrey Biodiversity Information Centre
Date: 22/10/2009
Revision: 06/11/2009

Appendix 8:
Wisley & Ockham Fire Plan



Scale: 1: 10000

Key

- Site Boundary
- Access Point (A P)
- 4 Wheel Drive (Main)
- 2 Wheel Drive
- Utilities - Power & Gas
- Hydrant (H)

PRIORITY PROTECTION

1. SSSI
2. Heathland - major part of site
3. Herptile Site

Soil Type - Peat layer over sand.

CONSIDER CLOSURES AND/ OR SMOKE HAZARD

On MAIN and MINOR ROADS & FOOTPATHS

CONSIDER

Premises EVACUATION

CONSIDER

VEG BURN RATE - RAPID BURNING

Gorse
Fir blocks

CONSIDER

A 30 tonnes gross weight.

B Bridleway bridge not suitable for heavy vehicles.

SFRS arbitrary grid lines at 200 metre intervals. Give reference NUMBER before LETTER.

N

Prepared by: Surrey Biodiversity Information Centre
Date: 18/03/2008
Revision: 07/07/2008
File Ref: W&O/Emergency Access/ Fire Plan

Appendix 9

Surrey Wildlife Trust

9a. Monitoring Strategy for Wisley and Ockham Commons
and

9b. Survey Methodlogy For Grazing Heathland Sites

Appendix 9a
Monitoring Strategy
Wisley and Ockham

Management Plan status
Draft management plan 2009 – 19 in place for Wisley and Ockham Commons pending

Natural England Conservation Objectives for Wisley and Ockham Common SSSI (January 2008)

Surveys completed on site
- Aerial photographs, 1948, 1999 & 2001
- National Vegetation Classification (NVC) survey, Dr G Groome EPR 2005
-

Past monitoring on the site
- NE condition assessment monitoring of SSSI (approx. every 6 years).
- Annual monitoring of Annex 2 bird species, Dartford Warbler, Nightjar, Woodlark.
- 2006/7 Rare Plant survey
- Ad hoc monitoring of rare plants
- Ad hoc monitoring of rare invertebrates
- Invertebrate surveys xxxx
- Monitoring of Silver Studded Blue butterfly (*Plebejus argus*), re-introduced 2005
- Monitoring of Sandlizard (*Lacerta agilis*) re-introduced 1991

Key features to be monitored
Designated features of SSSI/SPA
- Dwarf Shrub Heath:
    - European Dry Heaths and North Atlantic Wet Heaths with *Erica tetralix*
    - Outstanding assemblage of invertebrates
    - Populations of breeding birds (Annex 1)
        - Nightjar (*Caprimulgus europaeus)*
        - Woodlark *(Lullula arborea)*
        - Dartford warbler *(Sylvia undata)*
    - Populations of heath tiger beetle *(Cincidela sylvatica)*
    - Populations of mottled bee-fly *(Thyridanthrax febestratus)*
    - Populations of hornet robber-fly *(Asilus crabroniformis)*
- Open Standing water
    - Water bodies on Bagshot beds
    - Outstanding Odonata assemblage

Other features identified as important within management plan

- Rare Flora: Wisley
    - Bog hair grass (*Deschampsia setacea*): largest / possibly only Surrey colony
    - Large-celled Flapwort (*Lophozia capitata*): nationally rare (1st county record since 1970)
    - Ancient pollarded oaks along parish boundary
    - Large population of English bluebells (*Hyacinthoides non-scripta*)
- Rare Flora: Ockham
    - Floristic hotspot at Bolder mere
    - Floristic hotspot at Puck's Pond
    - Bush of *Erica cinerea rendleii*, a rare bell heather mutation
    - Small block of Ancient Woodland
- Woodland
- Grassland
- Fauna
    - Sandlizards (*Lacerta agilis*) (22 individuals re-introduced 17th May 1991)
    - Hobby (Falco subbuteo)
    - Common tern (*Sterna hirundo*)
    - Silver Studded Blue butterfly (Plebejus argus) (50 individuals re-introduced in 22nd June 2005)

Wisley and Ockham - Monitoring Timetable

(red=essential, amber=important, green=if possible)

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
Dwarf Shrub heath								
European Dry Heaths and North Atlantic	The objective for the heathland habitat is to maintain and expand the current extent of heathland and to keep within the limits detailed in the NE Conservation Objectives for the site.	Aerial photographs	Important	Heathland areas	Every 10 years or as often as flights are carried out	Data Management Unit	N/A – part of service level agreement	Aerial photos will be compared as they are produced to help monitor the extent of heathland on the site.
		Fixed point photography *See below for more details*	Important	Heathland areas	2008 then every 5 years	Ranger	1 day every 5 years once set up.	
		Baseline NVC survey *See below for more details*	Important	SSSI	? Recent survey conducted	? NE Surveyor	-	Need to obtain copy of this survey
		JNCC Common Standards Monitoring *See below for more details*	Essential	SSSI heathland	Annually (July – Sept)	NE – every 5 years? Ranger / SWT ecologist?	1 day/yr	Ranger would need to be trained to carry out JNCC Common Standards Monitoring

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
		Fixed quadrats *See below for more details*	If possible	SSSI heathland	Every 3 yrs? (July – Sept)	Ranger SWT ecologist	2 days every 3 years 2 days every 3 years	
Outstanding assemblage of invertebrates	NE Assemblage score target thresholds to be met (e.g. for Scrub heath and Moorland SQI score 160, for early successional SQI Score 180)	JNCC Common Standards Monitoring *See below for more details*	Essential	SSSI heathland	Minimum of every 6 years (May to September) Ideally every 3 years	SWT / other Specialist Entomologist	n/a ? 5 days every 6 years (3 days for visit 2 days for id)	Need to select key species to be monitored ion addition to the assemblage Note: In order to measure SQI survey effort beetles should be concentrated on beetles
Populations of Breeding birds:								

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
Nightjar, *Caprimulgus europaeus*	NE discretionary target maintain the population at **2** individuals or above	Minimum of 2 visits during breeding season to count breeding males. *See below for more details*	Essential	Heathland	Annually (early June – mid July)	Ranger & volunteers	1 day/year	Input results into national scheme
Woodlark, *Lullula arborea*	NE discretionary target maintain the population at **1** individual or above	3 visits during breeding season to estimate breeding pairs *See below for more details*	Essential	Heathland	Annually (Feb – June)	Ranger & volunteers	2 days/year	Currently this species is only recorded on an adhoc basis by the ranger or other users of the site.
Dartford warbler, *Sylvia undata*	NE discretionary target maintain the population at **2** individuals or above	3 visits during breeding season to estimate breeding pairs *See below for more details*	Essential	Heathland	Annually (Apr – June)	Ranger & volunteers	2 days/year	Currently this species is only recorded on an adhoc basis by the ranger or other users of the site.

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
Populations of heath tiger beetle *Cincidela sylvatica*	NE habitat target Minimum of 2% bare ground in core areas and abundance of food plant	Aerial photographs	Important	Heathland areas	Every 10 years or as often as flights are carried out	Data Management Unit	N/A – part of service level agreement	Aerial photos will be compared as they are produced to help monitor the extent of bare ground on the site.
	NE target Species should be present	? 1 visit May to September	Essential	Heathland	? Bi-annually	Invertebrate expert / Trained ranger	? 1 day every two years	Target specific features required by this species
Populations of mottled bee-fly *Thyridanthra x febestratus*	NE habitat target No more than 25% reduction in dry heathland or abundance of food plant	Aerial photographs	Important	Heathland areas	Every 10 years or as often as flights are carried out	Data Management Unit	N/A – part of service level agreement	Aerial photos will be compared as they are produced to help monitor the extent of heathland on the site.
	NE target Species should be present	? 1 visit May to September	Essential	Heathland	? Bi-annually	Invertebrate expert / Trained ranger	? 1 day every two years	Target specific features required by this species

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
Populations of hornet robber-fly *Asilus crabroniformis*	NE habitat target No more than 25% reduction in core habitat area or abundance of food plant.	Aerial photographs	Important	Heathland areas	Every 10 years or as often as flights are carried out	Data Management Unit	N/A – part of service level agreement	Aerial photos will be compared as they are produced to help monitor the extent of sandy grassland, heathland edges and extent of bare ground on the site.
	NE target Species should be present	? 1 visit May to September	Essential	Heathland	? Bi-annually	Invertebrate expert / Trained ranger	? 1 day every two years	Target specific features required by this species
Open Standing water								
Waterbodies on Bagshot beds	NE Target Boldermere lake: No loss of extent of standing water	Aerial photographs	Important	Heathland areas	Every 10 years or as often as flights are carried out	Data Management Unit	N/A – part of service level agreement	Aerial photos will be compared as they are produced to help monitor the extent of standing water.

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
	To maintain and enhance the network of ponds, ditches and streams (most notably Boldemere, Teal Pond, Pond Farm Pond and Pucks Pond).	General monitoring of waterbody health *See below for more details*	Essential	Ponds	Annually	Ranger	1 day/year	It is estimated that 1 day/yr will be required to monitor all the water bodies across Wisley and Ockham.
Outstanding Odonata assemblage	Maintain diversity of dragonflies and damselflies.	Odonata transect	Essential	Ponds/ streams	A minimum of once/month (May – September)	SWT entomologist / Ranger	?2 days every year	It is estimated that 2 days will be required to monitor odonata on the water bodies across Wisley and Ockham.
Other (non designated) features identified as important within the management plan								
Wisley and Ockham Rare Flora	Maintain rare / notable species and enhance cover of these species	Map locations of rare / notable species	Important	SSSI	One off to create baseline map	Data Management Unit / Ranger	N/A – part of service level agreement	It is possible this data can be extracted from NCV survey / ranger knowledge

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
		Targeted survey visit to record presence / absence of rare / notable species in mapped location	If possible	Mapped location	April to September	Ranger / SWT botanist	1 day/year	Could possibly target specific species annually on a rolling program of monitoring.
Woodland	To manage the woodland appropriate to its context within the site and with less than 5% alien species.	JNCC Common Standards Monitoring *See below for more details*	If possible	Woodland	Annually	Ranger / SWT botanist?	2 day/year	Ranger would need to be trained to carry out JNCC Common Standards Monitoring
Grassland	(non SSSI) grassland areas will be maintained and species diversity of existing enhanced (in particular populations of yellow rattle and Skylark will be maintained and enhanced)	JNCC Common Standards Monitoring *See below for more details*	If possible	Snakes field and Surrey Cottage Meadows	Annually	Ranger / SWT botanist?	1 day/year	Ranger would need to be trained to carry out JNCC Common Standards Monitoring

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
Sandlizards *Lacerta agilis*	To maintain and enhance the population on the site	Direct observation and refugia search in line with Froglife 1999 guidelines (see references)	Important	Heathland	Annually March – October (April, May and September are optimal)	Specialist Surveyor from HCT / SWT	4 days/yr	Requires that refugia be placed on the site; surveyor must be licensed by natural England to conduct this work
Hobby *Falco subbuteo*	To maintain or enhance the population on the site	Ad hoc observations	If possible	SSSI	annually	Ranger	NA ad hoc	The ranger should be able to monitor this species on an informal basis as he carries out other work on the site.
Common tern *Sterna hirundo*	To maintain or enhance the population on the site	Weekly / Ad hoc observations	If possible	Bolder mere (purpose built rafts)	Annually (April to July)	Ranger	6 days/yr	The ranger may be able to monitor this species on a less formal basis as he carries out other work on the site.

Feature	Objective	Monitoring procedure(S)	Priority	Location	When?	Who?	Estimated costs	Comments
Silver studded blue *Plebejus argus*	To maintain or enhance the population on the site	Butterfly transect once a week (June – August).	If possible	Dry heath	annually	Ranger	6 days/yr	The ranger may be able to monitor this species on a less formal basis as he carries out other work on the site.

Details of monitoring procedures

Wet & dry lowland heath – Fixed Point Photography

Fixed point photography is a quick and accurate method of recording change on a site. They can be very useful for demonstrating to people that change has occurred on a site if this has happened over a long period of time.

Fixed points will be set up within the heathland area to include all of the main interest features on the site. Existing points such as pylons, telegraph poles or other landmarks which are unlikely to change over time will be used where possible. If no suitable marker is present in an area, a small permanent marker could be installed. All the points will be marked on a map.

Digital photographs will be taken every 5 years from the fixed points. They will be taken at the same time of year each time and facing the same direction – previous photographs will be used for guidance in lining up future shots. All photographs will be carefully stored with their location, direction, timing and camera configuration recorded, so that they can be easily retrieved and compared in future years.

Wet & dry lowland heath – Baseline NVC survey

A baseline NVC survey is available for Wisley and Ockham dated 2005. A more recent survey has also been conducted, obtaining a copy of this more recent survey would be of great benefit to planning other monitoring work and site management.

Wet & dry lowland heath - JNCC Common Standards Monitoring

Natural England will undertake common standards monitoring on Wisley and Ockham approximately every 5 years. Between these visits, it is proposed that the ranger for the site will undertake similar monitoring on an annual basis. This will enable any problems to be picked up at an early stage and management adjusted as necessary.

The monitoring will follow the JNCC Common Standards Monitoring Guidance for Lowland Heathland (JNCC 2004). This will involve a structured walk (e.g. a 'W' shape walk) through each assessment unit of the heathland. For each structured walk at least 10 stops at equal stopping distances will be undertaken. At each stop, relevant attributes will be recorded within approximate $4m^2$ sampling units. Attributes will include aspects such as bare ground, vegetation structure and vegetation composition (positive & negative indicator species). According to JNCC guidelines, it should not take more than 10 minutes to record all the relevant attributes at each stop. The full guidance should be referred to for the detailed procedure. This monitoring will allow a general impression of the condition of the heathland to be gained and management to be altered as required.

Wet & dry lowland heath - Fixed quadrats

If resources allow, a number of fixed quadrats will be set up across the heathland areas in order to monitor the heathland diversity. This will enable a detailed assessment to be made as to the effects of changes in management on the heathland.

Quadrats will measure $2m^2$. Fixed markers will be positioned and a GPS used to locate the quadrats for future years. At least 10 quadrats will be set up within areas of both wet and dry heathland. Should grazing be established on the site, it will be useful to exclude a number of the quadrats from the grazing regime, so that the effects of grazing can be determined.

The quadrats will be surveyed every 3 years during the summer when most plants will be visible, ideally July or August. The structure of the heathland will be monitored including attributes such as sward height, heather stage, cover and litter layer. In addition a species list with abundances will be recorded which will allow detailed comparisons over a number of years as well as a conclusion as to the NVC community that the heathland fits.

Invertebrate Assemblage – JNCC Common Standards Monitoring

It is proposed that the invertebrate assemblage on the heathland areas of the site be monitored a minimum of every six years using the guidance outlined in the JNCC Common Standards Monitoring for Terrestrial and freshwater invertebrates. The first step is to map the areas with invertebrate interest (this could be done from the NVC map to identify areas of heathland or other habitat features suitable for invertebrates), then define a sampling strategy. As the site is large representative sub-sections of heathland should be sampled.

In order to obtain information of the overall species assemblage of each representative sub-section, a variety of survey techniques should be adopted. Techniques could include timed searches, quadrat searches, sweep-netting or beating; a summary of guidance for a variety of techniques is given in the Handbook of Biodiversity Methods (Hill et al, 2006). Several visits (at least 3) spread throughout the survey season would be required in order to cover seasonality of different invertebrate species.

Annex 1 bird species

A summary of guidance for monitoring of these species is given in the Handbook of Biodiversity Methods (Hill et al, 2006) and more detailed guidance is given in Bird Monitoring Methods: a Manual of Techniques for Key UK Species (Gilbert et al 1998).

Nightjar

The total number of separate churring males will be monitored as this can be used to determine the number of territories and hence the number of breeding pairs. A minimum of 2 visits will be made each year between the beginning of June and the middle of July, either at dusk or an hour before dawn. The surveys will not be undertaken during windy and wet conditions. If possible, at least 2 surveyors will be used to locate churring males which will be marked on a map. After the final visit, all records will be transferred to a single map

and those believed to be from a single pair will be included in the same territory. This will allow an estimate as to the number of territories/breeding pairs.

Woodlark

3 separate visits will be made to the heathland areas. Woodlarks start to show signs of territoriality early in the year so the visits will be carried out as follows;
1st visit: between 15th February and 21 March,
2nd visit: between 22nd March and 25th April,
3rd visit: between 26th April and 1 June.
Visits will be made before mid-day. All observations of the birds will be plotted on a map. After the final visit, all records will be transferred to a single map and those believed to be from a single pair will be included in the same territory. This will allow an estimate as to the number of territories/breeding pairs.

Dartford Warbler

3 separate visits will be made to the heathland areas as follows;
1st visit: between April and mid-May
2nd visit: between mid and late May
3rd visit: June
Surveys will be carried out any time during the day from an hour after dawn onwards as far as possible within dry, calm conditions. All encounters will be recorded on a map. After the final visit, all records will be transferred to a single map and those believed to be from a single pair will be included in the same territory. This will allow an estimate as to the number of territories/breeding pairs.

Waterbodies – General monitoring of waterbody health

The water bodies across Wislay and Ockham will be monitored on an annual basis.
Particular things to be noted include;
- the presence of any non-native invasive species,
- the build up of sediment,
- the balance of submerged, floating and emergent vegetation and
- the degree of shade.

The results of the monitoring will inform the future management of the ponds. Each year following the monitoring, one pond will be chosen for improvement work.

Monitoring water bodies – Odonata transect

The diversity of dragonfly and damselfly fauna is a good indicator of the health of the water bodies. This will be monitored annually to ensure that the diversity of dragonflys and damselflies does not decline significantly when comparing surveys over a number of years.

A standard transect will be walked which takes in the majority of ponds across the Worplesdon Commons (including Whitmoor). All odonata will be recorded during this transect. The transect will be walked ideally between 10:00 and 14:00 hours, on days with at least 50% sunshine and light wind conditions. Ideally the transect would be walked once a week from May to September, but this will depend on time restraints. More realistically it is aimed to carry out this transect at least once a month between May and September.

Woodland - JNCC Common Standards Monitoring

It is proposed that the woodland on site is monitored annually using the guidance outlined in the JNCC Common Standards Monitoring for woodland. This is a relatively quick and simple method of monitoring woodland and allowing any problems to be picked up at an early stage.

The monitoring will take the form of a structured walk around the woodland with a series of observation stops along the way. As far as practical, the walk should not be restricted to paths, but should go across the middle of stands, through glades etc. At each stop the woodland that can easily be seen will be considered (this will probably equate to about a 50 x 50m plot). As well as percentage covers of species, notes will be taken to help contribute to the overall impression of the woodland structure.

Specific aspects noted during the monitoring will include;
- the abundance of standing and fallen dead wood,
- the presence of non-native invasive species,
- the percentage of open space, canopy cover, shrub layer and ground flora.

Following the monitoring survey, an overall impression of the structure of the woodland will be gained. This will enable an assessment as to whether the woodland is in favourable condition and whether the management needs to be adjusted.

Grassland – JNCC Common Standards Monitoring

It is proposed that the grassland in the areas of the site specified is monitored annually using the guidance outlined in the JNCC Common Standards Monitoring for Lowland Grassland Habitats. This is a relatively quick and simple method of monitoring woodland and allowing any problems to be picked up at an early stage.

The monitoring will take the form of a structured (e.g. a zig zag pattern) walk around the grassland with a series of observation stops along the way. As far as practical, the walk should not be restricted to paths, but should go across the middle of the grassland and ideally at least 20 stops should be made. At each stop the grassland that can easily be seen will be considered (this will

probably equate to a semi-circle of radius 1m in front of the surveyor). As well as recording species present and their relative abundance, notes will be taken to help contribute to the overall impression of the grassland structure.

Specific aspects noted during the monitoring should include;
- grass:herb ratio
- Presence of positive indicator species
- Presence of negative indicator species
- Indicators of local distinctiveness
- Sward height
- Bare ground cover

Following the monitoring survey, an overall impression of the structure of the grassland will be gained. This will enable an assessment as to whether the grassland is in favourable condition and whether the management needs to be adjusted.

References

- JNCC, 2008 *Common Standards Monitoring Guidance for Terrestrial and freshwater invertebrates* March 2008

- Hill, D., Fasham, M., Tucker, G., Shewry, M. and Shaw, P., 2005 *Handbook of Biodiversity Methods Survey, Evaluation and Monitoring* Cambridge University Press, Cambridge.

- JNCC, 2004 *Common Standards Monitoring Guidance for Lowland Grassland Habitats* Feb 2004

- JNCC, 2004 *Common Standards Monitoring Guidance for Lowland Heathland* Feb 2004.

- JNCC, 2004 *Common Standards Monitoring Guidance for Woodland Habitats* Feb 2004

- Froglife, 1999 *Reptile survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.* Froglife Advice Sheet 10. Froglife, Halesworth

- Rodwell, 1991 *British Plant Communities Volume 2 Mires and Heaths,* University of Cambridge, Cambridge.

Appendix 9b

SURVEY METHODLOGY FOR GRAZING HEATHLAND SITES USING WISLEY COMMON AS AN EXAMPLE

OBJECTIVE:

- Assess the impact of grazing to illustrate its effect to the public.
- Identify improvement in habitat quality or highlight management problems to better inform site manager of impact.

Defining site attributes, e.g. bare ground, within the monitoring process will achieve certain targets, which are set to benefit particular species, like BAP species.

EXTENT OF HABITAT

Record the area of heathland and other habitats present, such as bracken, scrub, acid grassland, deciduous woodland, and secondary woodland to be restored to heath, using aerial photographs and NVC survey.

Negative attributes	Target	Target species
Secondary Woodland	Restore to heath within 10 years*	All heath species, Woodlark
Shrub	Maximum 15% of dry heath or 10% of wet heath area after 10 years*	All heath species
Bracken	Less than 10% of dry heath or 5% of wet heath after 10 years*	All heath species. (Consider whether fritillary sp. Present)
Gorse	Less than 25%of dry heath or 10% of wet heath	Invertebrates, Dartford Warbler

(*Figures can be adjusted on site by site basis; i.e. up to 25% scrub cover may still be acceptable within favourable condition if locally important for particular species)

Habitat extent recorded by the DMU of SWT.
Monitor scrub using fixed-point photography (twice per year: summer and winter) to compare year on year changes.

VEGETATION

SURVEY
Map vegetation communities, record their condition (e.g. heather growth phase) and locate significant species. Should be minimum of Phase 1 and ideally be Phase 2 NVC survey.

MONITORING

In order to monitor changes in community composition two techniques are proposed:

- To illustrate the effect of grazing to the public, objective led monitoring using 25 (*1) fixed quadrat (2m2) surveys on fixed transects and/or macroplots to determine percentage species composition and abundance in July.

Most quadrat sites to be in open heath areas, with even distribution across EN management units. Quadrat sites will be chosen to represent the following habitats present: dry- humid- wet- heath, and pond edge, some located on transitional edge between say dry and wet heath. Sites to be marked on the ground with metal pegs, mapped and locations recorded through GPS

-To identify improvement in habitat quality or highlight management problems, surveillance monitoring by random quadrats will be used, following EN's Common Standards Monitoring approach. (Habitat extent has already been recorded above). This would record vegetation structure, vegetation composition, % of bare ground, negative indicators and any indicators of local distinctiveness. In addition it would be beneficial to record vegetation height, especially Molinia, to monitor the effect of grazing, e.g. % of sward under 15cm in height. Survey date: July.

-Additional monitoring of scarce plant species can be undertaken if required: e.g. Bog Hair Grass (*Deschampsia setacea*), and e.g. Pillwort (*Pilularia globulifera*) if reintroduced.

Attribute	Target	Target Species
Bog Hair Grass. Count number of flowering spikelets in early July	30	Bog Hair Grass

INVERTEBRATES:

Baseline survey of invertebrate communities undertaken by 4 specialist surveyors, over 5 separate visits, during May-June, July and August. Report to include lists of species, comments on rarity, numbers seen to show relative abundance and management recommendations. Can follow standardized walk or record time spent in particular area/habitat. Important to identify species likely to be sensitive to grazing, e.g. cattle can selectively graze willow and aspen, and invertebrates dependant on those trees could be adversely affected.

Following first survey there may be specific species to monitor in future years.

Transect counts may be applicable on certain heathland sites to record numbers of scarce invertebrates like butterflies (e.g. silver studded blue/grayling) and dragonflies.

BIRDS: Follow a mapped line transect through heathland area recording all species seen or heard. Record SPA species: Woodlark: 3 visits between mid-February and end May. Walk within 100m of all suitable habitats. Map all activity. Nightjar: Minimum 2 visits, from early June to mid-July. Need mild, calm weather. Map territorial activity including churring. Dartford Warbler: 3 visits, early April to mid-June.
REPTILES: Place 4 (*1) tins on heathland and monitor reptile species and numbers May 1- May 7, at 9 – 10am.

For baseline survey, at Wisley, external consultants undertook surveys of vegetation, birds and invertebrates.

COSTS:
Vegetation: survey only, setting out of transects/macroplots done internally by SWTCS staff; **£1000** + VAT (£200/day)
Birds: **£420** + VAT
Invertebrates: **£3000** + VAT

The grazing enclosure of Wisley Common is approximately 300 acres, 120 ha.

Undertake survey as above Year 1 2005 (ungrazed), Year 4 2008 (3rd full summer of grazing), Year 7 2011, Year 10 2014.
Some sites may wish to include amphibian survey.

*1 Figures can be adjusted on site-by-site basis.

Information from: RSPB N Symes and J Day Lowland Heathland 2003, EN Habitat restoration monitoring handbook No 378 2000, EN Lowland heathland SSSIs: Guidance on conservation objectives setting and condition monitoring, No 511.

(Initial document: David Boddy 8/2/05. Comments gratefully received from Giles Groome, and Rob McGibbon). Funding for invertebrate survey contributed by Tomorrow's Heathland Heritage Project, under the Heritage Lottery Fund, secured by the SHP.