## **Croham Hurst**

# Management Plan (DRAFT)

Date (dd/mm/yyyy)	24 May 2010	То	24 May 2030
Date of last review <sup>1</sup> (2.1.3)	June 2008		
Owner / tenant	London Borough Of Croydon		
Agent / contact	Richard Edwards / Simon Levy		
Signed declaration of tenure rights and agreement to public availability of the plan <sup>2</sup>	Simon Levy		
(UKWAS 1.1.3/1.1.5/2.1.2)			



<sup>&</sup>lt;sup>1</sup> The plan must be reviewed every five years.

 $<sup>^{2}</sup>$  As owner, tenant or manager, you have the right to manage the wood in accordance with this plan. At least a summary of the management plan must be made publicly available on request.

## 1. Background information

#### 1.1 Location

Nearest town, village or feature	Croydon
Grid reference	TQ 342 629
Total area (ha)	34 ha

#### 1.2 Description of the woodland(s) in the landscape

Croham Hurst is a very visually significant forming a dramatic hill rising above suburban Croydon especially when viewed from the north and west. The site comprises an outlying hill of the London Tertiaries rising steeply to some 60 metres above sea level and is capped by Blackheath Beds which form an erosion resistant capping to site. It is bounded to the north and east by Croham Hurst Golf Club and on all other sides by roads and suburban housing. As such very few houses actually back onto the wood.

#### 1.3 History of management

The site is an ancient semi-natural woodland (ASNW) which indicates that there is likely to have been woodland on the site since the last ice age. The current woodland structure gives some clues to past management. It is likely that some areas on the lower slopes adjacent to the golf course were managed as oak over hazel, coppice with standards and indeed this form of management may have been more widespread on the site but much of it is high forest dominated by oak although beech is significant on the golf course side of the wood. Scots pine has been introduced to the more gravel soils on the top of the site on which there are two large glades with lowland heath characteristics which may well have been grazed.

The site was in the 15<sup>th</sup> century part of Old Croham Manor acquired in 1601 by the Archbishop of Canterbury (Whitgift) and remained in the Whitgift Foundation until 1898 when it was put up for sale with the lower slopes earmarked for housing. This provoked a public outcry and the site was bought by Croydon Council in 1901 for use as public open space.

The site was much more open in this period with a larger contiguous area of heath on the top and a more parkland feel at the bottom of breakneck hill.

It is believed that little active management took place on the site from this time, although the site was severely affected by the 1987 hurricane. In 2003 there were clearance works to maintain the heath on top of the site, two areas of holly were cleared one of which also had some thinning of the canopy. In addition a small area of coppice adjoining the golf course was cut. An area of former meadow on the sites western lower slopes has also been opened up and restored. The verge on the edge of the Upper Selsdon Road has also been cleared for pale St John's wort

## 2. Woodland information

### 2.1 Areas and features

2.1.1 Designated areas	In woodland	Adjacent to woodland	Мар
Special Areas for Conservation (SACs)			
Special Protection Areas (SPAs)			
Ramsar Sites (see note on Guidance)			
National Nature Reserves (NNRs)			
Sites of Special Scientific Interest (SSSIs)	yes		
Other designations e.g.: National Parks (NPs), Areas of Outstanding Natural Beauty (AONBs), Local Nature Reserves (LNRs)	yes		

Details: The whole site is a SSSI and is also a site of Metropolitan Importance

Currently the site is in *Favourable* condition (latest assessment date 18 may 2009) see appendix 1

2.1.2 Rare and important species	In woodland	Adjacent to woodland	Мар
Red Data Book or BAP species			
Rare, threatened, EPS or SAP species			

Details: Nationally declining pale St Johns wort is present on the verge adjacent to the Upper Selsdon Road.

2.1.3 Habitats	In woodland	Adjacent to woodland	Мар
Ancient semi-natural woodland (ASNW)	Yes		
Other semi-natural woodland			
Plantations on ancient woodland sites (PAWS)			
Semi-natural features in PAWS			
Woodland margins and hedges			
Veteran and other notable trees			
Breeding sites			
Habitats of notable species or subject to HAPs	Yes		
Unimproved grassland	Yes		
Rides and open ground			
Valuable wildlife communities			
Feeding areas			
Lowland heath	Yes		
Peatlands			
Others			

#### Details:

- . The whole site is classified as ASNW
- Nationally declining pale St Johns wort is present on the verge adjacent to the Upper Selsdon Road
- . A small meadow is being restored on the lower western flank of the site
- The top of the site contains locally scarce lowland heath

2.1.4 Water	In woodland	Adjacent to woodland	Мар
Watercourses			
Lakes			
Ponds			
Wetland habitats			

**Details: No water on site** 

2.1.5 Landscape	In woodland	Adjacent to woodland	Мар
Landscape designated areas			
Landscape features	yes		
Rock exposures			
Historic landscapes			
Areas of the woodland prominent from roads	Yes		
Areas of the woodland prominent from settlements	Yes		

Details: The site is a significant landscape feature in Croydon and is prominent both from surrounding roads and the suburban settlement it is largely surrounded by.

The site has a very varied and interesting geology. The top of the site consists of Blackheath Beds over Thanet Sands giving way to the underlying chalk on the lower slopes.

2.1.6 Cultural features	In woodland	Adjacent to woodland	Мар
Public rights of way	yes		
Prominent viewing points	yes		
Permissive footpaths	yes		
Areas managed with traditional management systems	yes		

#### Details:

- The site contains numerous public footpaths as well as permissive footpaths
- The top of the site affords a fantastic view point
- A small corner of the site has been re-coppiced

2.1.7 Archaeological features	In woodland	Adjacent to woodland	Мар
Scheduled monument	yes		

Historical features yes
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Details: There is a scheduled ancient monument a Bronze Age Round Barrow on the top of the site. Scheduled Ancient Monument G.L.no 87

There is also evidence of a late Mesolithic Settlement from the discovery in 1968 of two hut sites on top of the Hurst and flint tools from this period have also been found

#### 2.2 Woodland resource characteristics

**Amenity:** Croham Hurst has a high potential for both recreation and education by virtue of its location near urban settlements, geology, structure and ASNW/heath characteristics. This is already realised via permissive or official access.

**Biodiversity:** This is a good example of an ASNW with lowland heath and is an SSSI and a Site of Metropolitan Importance

**Timber:** As with all London Borough of Croydon's woodlands the primary objectives of management are biodiversity and amenity. However, the timber and wood products from Croham Hurst are potentially a valuable resource.

#### 2.3 Site description

Croham Hurst's SSSI designation arises from its importance for nature conservation. This importance is principally the result of a wide variation in underlying geology which has created a range of stand type and also an area of lowland heath. (See NE Notification Appendix 2)

#### Geology

The site comprises an outlying hill of the London Tertiaries rising steeply to some 60 metres above sea level. The site is capped by Blackheath Beds which form an erosion resistant capping to site. Where the thin sandy soils which cover the Beds have been eroded away, areas of consolidated pebbles and pebble down-wash at the edges have formed with erosion being a problem. The soil below the top and on the upper slopes is acidic on the Thanet Sands, but on the lower slopes alkaline, where the underlying chalk is exposed.

#### Vegetation

This changing geology is reflected in differing flora. At the top on the Blackheath Beds there is lowland heath with acid grassland and patches of bilberry, heather and wavy hair grass. This open area has quite a few stunted possibly coppiced sessile oaks especially on its margins however there is also significant encroachment by younger oak, birch and scots pine to the detriment of remaining heather areas. Away from heathland areas ground flora is either absent or comprised of bracken and bramble.

#### Heather on lowland heath

Below the Blackheath Beds the Thanet Sands support diverse woodland both as regards tree species and ground flora. To the north there are stands of almost pure mature beech with a typical near absence of ground flora. Elsewhere there are significant stands of oak underneath which in some areas a dominant understorey of holly has developed to the exclusion of any other species.

On the calcareous areas at the base of the hill especially to the south-east the ground flora is much

richer with dog's mercury, sanicle, wood anemone, bluebell and yellow archangel. Here whilst oak is the dominant canopy species there is abundant ash, field maple and cherry with hazel represented in the understorey. At the base of the hill in areas of calcareous scrub there is St John's Wort a nationally declining species.

The 1987 storm had a significant impact on this wood with widespread random damage on the shallower slopes. This in many ways has had a positive effect on the woodland with the break up of a very even aged wood and the introduction of dense thickets of regenerating trees.

Non native species such as sycamore and turkey oak have become apparent in some areas however, the some sycamore has been removed although it is still significant in the NW section of the wood. Scots pine (not native in this area) is present on the top of the site.

Woodland on chalk soil

Mature woodland on more acidic soils

Area cleared of holly but not thinned. Note larger surrounding holly

#### **Archaeology**

Croham Hurst has Croydon's only scheduled ancient monument on a woodland site which is the round Bronze Age barrow on the top of hill. Marked by a plaque the barrow itself has become increasingly overgrown with trees and one large Scots Pine represents a significant threat of wind throw on the shallow soils. The monument was scheduled in the 1960s and has not been fully excavated.

There is also evidence of a late Mesolithic Settlement from the discovery in 1968 of two hut sites on top of the Hurst and flint tools from this period have also been found

#### **Access**

Croham Hurst has free public access throughout the site and includes network of public and permissive footpaths.

#### Community

There is an active Friends Group who have undertaken the clearing of the road embankment for Pale St John's Wort and a small chalk grassland area.

Local schools use the site for cross country.

#### 2.4 Significant hazards, constraints and threats

Hazards -

Steep slopes

High public use

#### Constraints -

Houses and gardens bordering the site

Concerns, from local residents. re active management.

Archaeological features

#### Threats -

Fire lighting does occur on the site especially on the top heathland area otherwise there is little vandalism or abuse by motorbike riders

Squirrel damage is a serious problem which threatens not only beech trees but oak as well. Erosion - On the sloping areas of the Blackheath Beds especially the steep slopes of breakneck hill erosion principally be human activity has been a problem. This has been addressed by fencing off some areas (now taken down) at the top of the hill and putting steps on a western descent path.

Invasive non natives pose a future threat to this wood with sycamore in the NW being a particular issue and Turkey Oak is also present.

Holly is becoming dominant in the north of the wood where there is canopy closure and is preventing regeneration in these areas.

## 3. Long term vision, management objectives and strategy

#### 3.1 Long term vision

For an ancient semi-natural woodland with diversity of native structure ranging from areas of varied age high forest, in-rotation coppice, lowland heath and chalk grassland.

These features along with the ancient monument to be in favourable condition.

The wood should also provide both safe amenity and interest for local people as well as timber products.

#### 3.2 Management objectives

No.	Objective
1	To preserve Croham Hurst as woodland for the long term future
2	To maintain and improve Croham Hurst's biodiversity
3	To maintain Croham Hurst's amenity value
4	To protect and preserve the scheduled ancient monument

### 3.3 Strategy

- 1. Croham Hurst is designated as Green Belt land and as such us currently protected from development
- 2. Biodiversity to be maintained/improved by
  - improving and extending heathland habitats, extending current area by 0.4 ha

over five years and removing regeneration of trees in the heather (annually)

- Removing encroaching non native species sycamore in the NE corner to be removed by 2030
- Maintain a variety of deadwood types both standing and fallen to maintain the current volumes advocated in the UKWA standard.
- Control holly understorey where over-dominant thinning the canopy above to promote the regeneration of more light demanding species 1.0 ha in the period of the plan
- Leave veteran trees especially sessile oaks at the top of the Hurst
- Manage and increase grassland areas along Upper Selsdon Road to benefit St John's Wort.
- Other than areas/species as above the majority of the site is to be managed by non-intervention. This will be reviewed every five years.
- 3. Amenity to be maintained by keeping paths open and ride work. Tree health and safety inspections every three or five years. Ensure erosion damage to paths is minimised e.g. by steps or temporary fencing subject to annual monitoring of condition.
- 4. Ancient monument- consider removing some or all trees on barrow as per English Nature letter 5<sup>th</sup> December 2003 and current good practice.

#### 3.4 Woodfuel initiative

Would you be interested in receiving information on funding opportunities for the purchase of harvesting machinery or wood fuel boilers?

Yes

## 4. Management prescriptions/operations

#### 4.1 Silvicultural systems

#### 4.1.1 Harvesting

Motor manual felling only and timber removal if required by converted agricultural tractor.

### 4.1.2 Phased felling and restructuring of plantations

Croham Hurst due to its varied geology and wind throw from 1987 has a fairly varied canopy and restructuring is not required in the period of this plan although some may take place due to holly clearance.

### 4.1.3 Establishment, restocking and regeneration

Natural regeneration is the favoured method.

#### 4.2 New planting

No new planting

#### 4.3 Other operations

#### Heathland:

- clearance and maintenance. Link two open areas along the slopes of Breakneck Hill.
  - Removal of young trees in the heather

**Pale St John's wort**: maintain grassy glade environment which favours this plant by removing encroaching scrub. Extend the cleared area up the Upper Selsdon road.

Chalk Grassland: maintain the open area to the NE of the site.

#### 4.4 Protection and maintenance

#### 4.4.1 Pest and disease management

Deer are present but are currently an occasional presence on site and not a serious issue on this site.

Squirrel control will not be considered for the first five year period of this management plan because of the difficulties of maintaining effective control in an urban setting. However, this will be reviewed especially as regards the effect on young oak and ash.

Invasive non native species such as sycamore, turkey oak and will be controlled by cutting and stump treatment.

Holly is an issue on this site and will be removed from some areas and the canopy thinned to encourage the regeneration of more light demanding native species.

Non native and holly stumps will be treated with glyphosphate subject to Natural England consent to prevent their regeneration.

#### 4.4.2 Fire plan

In general this wood represents a low fire risk as with most broadleaved woodlands, with arson the most likely cause of fire. There is a history of fires started in the heathland areas on top of the site but to date these have not been serious.

In the event of a fire being reported the Fire Brigade must be contacted immediately.

Bottles, broken glass, burnt out cars and illegal fly tipping all add to the risk that a fire can be started accidentally. Litter will be reported or removed immediately.

Whilst the perimeter of the site has good access via roads or the golf course access to parts of the wood by fire appliance will be very difficult due to slopes.

There are no watercourses and supplies within the woodlands suitable for fire fighting. The adjacent golf course may have usable water sources.

Rendezvous points for staff and contractors will be at the nearest entrance to the site of the fire, or if it is obvious, at the fire site.

In the event of the Fire Brigade being called out it must be borne in mind that they will not have a detailed knowledge of the wood and the various woodland areas so a well known location should be used. In addition, someone with up to date knowledge of the quickest, and best, route to the fire through the effected woodland should meet them.

The rendezvous point to meet the fire services are: main woodland access points nearest the fires. (See Maps). Site Keys are Croydon gun keys and FB 1 keys (car park)

#### 4.4.3 Waste disposal and pollution

Litter is not a huge problem in this wood.

The site has no dog bins which may be worth considering as this is an issue and has caused concern with e-mails received expressing this.

Contracts with contractors state penalties for leaving waste and also require the use of biodegradable lubricants where practical and the carrying of spillage kits on all vehicles.

Chemicals will only be used to treat non natives and holly.

#### 4.4.4 Protection from unauthorised activities

Vandalism is not a major issue on this site and high public use and the Friends Group ensure that any issues are reported. The Ranger Service do not regularly visit this site but can be called on if required.

#### 4.4.5 Protection of other identified services and values (4.1.1)

Health and safety inspection of trees on all paths and roads (not desire lines) with subsequent remedial work. Last inspection 2006/7.

#### 4.5 Game management

No game management in Croydon's woods.

#### 4.6 Protecting and enhancing landscape, biodiversity and special features

#### 4.6.1 Management of designated areas

See 3.3. The aim is to maintain and improve the site's current favourable condition and strive to implement recommended best practice on the site's scheduled monument.

### 4.6.2 Measures to enhance biodiversity and other special features (2.1.1k and 6.1.1)

See 3.3

#### 4.6.3 Special measures for ASNW and SNW

See 3.3

#### 4.6.4 Special measures for PAWS

Whilst there are scots pine on the site this is not a plantation and bar for the issue of the pine on the scheduled ancient monument all pine will be retained unless deemed dangerous as they are an important landscape feature on this site.

#### 4.6.5 Measures to mitigate impacts on landscape and neighbouring land (3.1.2)

All work on this site will be small scale and other than heath clearance thinning and continuous cover forestry (the felling of individual or small groups of trees) will be the principle methods of management used.

#### 4.7 Management of social and cultural values

#### 4.7.1 Archaeology and sites of cultural interest

Ancient monument- consider removing some or all trees on barrow as per English Nature letter 5<sup>th</sup> December 2003 and current good practice.

#### 4.7.2 Public access and impacts on local people

The site has very high public usage being a stunning location surrounded by housing. It is served by 4 public footpaths nos. 3,4, 148 and 149. Dog walkers are the principal users but also local families and schools.

Paths are maintained and tree safety inspections are carried out.

## 5. Consultation

Organisation/individual	Date received	Comment	Response/action
Natural England			
English Heritage			
GLA			
Forestry Commission			
Friends Group			
Council Ecologist			
Association of Croydon Nature Conservation Societies			

## 6. Monitoring plan summary

Objective number, issue or UKWAS Requirement	Indicator	Method of assessment	Monitoring period	Responsibility	How will information be used?
Lowland Heath	Extent Amount of woody regeneration	Visual	Annual	Woodland Advisor, Nature Conservation Manager	To generate appropriate work
Coppice regeneration	minimum1 metre growth per annum/ low levels deer browsing	Visual	One year after cut and three years thereafter	Woodland Advisor, Nature Conservation Manager	To maintain areas or even expand
Natural Regeneration in CCF areas	Regeneratio n of native trees	Visual	Annual for first five years	Woodland Advisor	To determine success of works
Hazardous tree inspection / tree health	Trees posing a potential hazard/threa t	Visual	Every 5 years	Tree officer, Woodland Advisor	To issue instructions to contractors
Flora.	Variety of flora plus level of presence of key species pale St Johns wort	Visual	Friends Group, Croydon ACNCS	Nature Conservation Manager Croydon ACNCS	To access success of current management and the need for future work.
Contract monitoring	Keeping to terms of contract	Site visit	As and when	Woodland Advisor, Tree Officer	To maintain contract conditions
Erosion	Path condition/ exposed slopes Break Neck Hill	Visual	Annual	Woodland Advisor	To action remedial work
Ancient Monument	Monitor trees on barrow and general condition	Visual	Annual	Woodland Advisor plus occasional visit English Heritage	To action remedial work

(Amendments to guidance – replicable to allow comparison over time 2.3.2b and required scope of monitoring activities 2.3.2c plus annual monitoring related to effectiveness of measures for special areas 2.3.5)

## 7. Work programmes

## 7.1 Outline long-term work programme (2015 -2030)

Compartment	Activity	Year					
or area	Activity	6-10	11-15	16-20			
d) Verge of Upper Selsdon Road	Maintain verge for pale St Johns wort	√	<b>√</b>	<b>√</b>			
b1) Chalk meadow western slope of site	Maintain and extend chalk meadow	<b>√</b>	<b>√</b>	√			
a) Lowland Heath on top of site	Increase area of heath by 1.0 ha	√	<b>√</b>	<b>√</b>			
a) Lowland Heath on top of site	Remove tree regeneration	V	V	V			
c) North slope up from Bankside	Remove holly	√	V	V			
b) Slopes above Upper Selsdon Road	Thin / open holes in canopy 1ha to encourage regeneration of young native trees		<b>√</b>				

## 7.2 Short-term work programme 2010 -2015

				Year		
Compartment or area	Activity	1	2	3	4	5
d) Verge of Upper Selsdon Road	Maintain verge for pale St Johns wort	√	<b>&gt;</b>	<b>√</b>	>	√
b1) Chalk meadow western slope of site	Maintain and extend chalk meadow	<b>√</b>				
a) Lowland Heath on top of site	Increase area of heath by 0.4 ha			<b>√</b>		
a) Lowland Heath on top of site	Remove tree regeneration	√		√		√
c) North slope up from Bankside	Remove holly over one hectare and thin canopy		√			

## 8. Costings (2.2.1)

Selsdon is managed as a compartment on the London Borough of Croydon Estate 500 ha total):

- FC grant income includes Woodland Management Grant £30 per hectare per annum and Woodland Improvement Grant for all capital works
- Timber sales are used to supplement all relevant works.
- Annual budget of £50,000 per annum for health and safety works across the whole estate

These three income streams have maintained the levels of management detailed in this plan for the previous twelve years

### 9. Maps

List all maps here and append to plan.

Map No./Title	Description

## 10. Thinning, felling and restocking proposals

### Table B.

This section must be completed if you wish to gain felling licence approval from the Forestry Commission. The work detailed below should match the proposals set out in the plan.

For details on how to complete the table, please refer to EWGS 4 Woodland Regeneration Grant Guide (PDF 84kb).

Cpt/sub cpt	Area	Area to be worked	Type of felling	% of arcomp	ea	Type of licence	Change in woodland type	Preferred claim year	Restock species %	Establishment by natural regeneration %	Standard proposals	Notes
a	2ha	1.4ha	SF	95	5	UC	ASNW – open heath	13/14	N/A	N/A	N/A	Restoration of lowland heath one of the SSSI notification criteria for the site
C1	0.4	0.4	Т	100		UC	ASNW - BL	12/13	OK/MB	100%	1ii	Thin above cleared holly to encourage regeneration
С	5.0	1.0	Т	100		UC	ASNW - BL	12/13	OK/MB	100%	1ii	Thin above cleared holly to encourage regeneration
b)	5.0	1.0	Т	100		UC	ASNW - BL	2019/20	OK/MB	100%	1ii	CCF work to encourage diversity of structure

### Addition information if required

## Appendix 1

### **Condition of SSSI units**

Compiled: 04 May 2010

See the **SSSI glossary** for an explanation of terms.

Team - London - SSSI name - Croham Hurst - Staff member responsible for site - Samantha Lyme

F	Region	County	District	Main habitat	Staff member responsible for unit	numb	Unit ID	Unit area (ha)	Latest assessmen t date		Condition assessment comment
L	London	Greater London	Croydon	Broadleaved, mixed and yew woodland - lowland	Samantha Lyme	1	1004918	33.92	18 May 2009	Favourable	The woodland typically has a sparse or shading understory with a high canopy cover, and though both attributes fall within the FCT target range there is little variation on this trend across the site. However, across

				the site there is evidence of regeneration and of a good age range of key species including Beech and Oak. In areas where there is limited understory there is still regeneration and signs of trees growing through to saplings. Non-native cover is low except in the NW section of the site where Sycamore is dominant and the only species readily regenerating. However, total cover across the site is <5% and not negatively impacting on the overall condition of the site. The dead wood resource is good. On balance the woodland is in a favourable condition as it meets all of the attribute targets.
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#### Appendix 2

File ref: TQ/36-1

**County: Greater London Site Name: Croham Hurst** 

**District: Croydon** 

Status: Site of Special Scientific Interest (SSSI) notified under Section 28

of the Wildlife and Countryside Act 1981 **Local Planning Authority:** Croydon

National Grid Reference: TQ 338632 Area: 33.6 (ha) 83.0 (ac) Ordnance Survey Sheet 1: 50 000: 177, 178 1: 10 000: TQ 36 SW Date Notified (Under 1949 Act): 1975 Date of Last Revision: - Date Notified (Under 1981 Act): 1984 Date of Last Revision: -

Other Information:

#### **Reasons for Notification:**

Croham Hurst is an area of ancient woodland with a range of stand types that reflect the variations in the underlying geology.

The Hurst shows an interesting ecological and topographical graduation from a diverse pedunculate soils overlying the chalk, through stands of beech on the Thanet Sands to sessile oak-birch woods on the acidic soils of the Blackheath pebble beds. These strata form an erosion resistant capping to Croham Hurst hill and support a heathland community in the woodland glades. In addition there are areas of calcareous scrub on the chalk at the base of the hill that contribute further to the diversity of the site.

The typical shrubs and trees of the lower wood and scrub are dogwood *Cornus sanguinea*, guilder rose *Virburnum opulus*, whitebeam *Sorbus aria*, and privet *Ligustrum vulgare*. Plants of the species-rich oak-hazel stands include primrose *Primrose vulgaris*, anemone *Anemone nemorosa*, lesser celandine *Ranunculus ficaria*, and bats-in-the-belfry *Campanula trachelium*. In contrast the ground flora of the acidic Blackheath beds include heather *Caluna vulgaris*, bilberry *Vaccinium* 

myrtillus and wavy hair-grass Deschampsia flexuosa.



## 10.1 Views About Management

A statement of English Nature's views about the management of Croham Hurst Site of Special Scientific Interest (SSSI).

11.

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

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

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

## **Management Principles**

There may be several different ways in which the wood can be managed to best conserve its value for wildlife - by promoting an appropriate woodland structure, by ensuring regeneration and by looking after the things that make this wood special. The attached notes give broad views on a range of regimes that may be appropriate on your site.

A diverse woodland structure with some open space, some areas of dense understorey, and an overstorey of more mature trees (which may be the standard trees under a coppice-with-standards regime) is important. A range of ages and species within and between stands is desirable.

Some dead and decaying wood such as fallen logs, old hollow trees or old coppice stools is essential for providing habitats for fungi and dead wood invertebrates. Work may, however, be needed to make safe dangerous trees where they occur in areas of high public access.

Open spaces, either temporary gaps created by felling or coppicing or more permanent areas such as rides and glades, benefit other groups of invertebrates such as butterflies. They should be of sufficient size to ensure that sunny conditions prevail for most of the day. Rides and glades may require cutting to keep them open.

Felling, thinning or coppicing may be used to create or maintain variations in the structure of the wood, and non-native trees and shrubs can be removed at this time. To avoid disturbance to breeding birds the work is normally best done between the beginning of August and the end of February. Work should be avoided when the ground is soft, to prevent disturbing the soil and ground flora. Wet woodland by streams and other waterbodies is often best left undisturbed. Normally, successive felling, thinning or coppicing operations should be spread through the wood to avoid too much disturbance in one area. However, where there is open space interest (e.g. rich butterfly populations) adjacent plots may be worked to encourage the spread of species that are only weakly mobile.

Natural regeneration from seed or stump regrowth (as in coppice) is preferred to planting because it helps maintain the local patterns of species and the inherent genetic character of the site.

Deer management and protection from rabbits or livestock are often necessary. Whilst light or intermittent grazing may increase woodland diversity, heavy browsing can damage the ground flora and prevent successful regeneration.

Parts of the wood should be left unmanaged to benefit species that do best under low disturbance. In addition, lack of management allows for the operation of natural processes such as windblow. Within these areas some trees will eventually die naturally and dead wood accumulate.

Where they are a threat to the interest of the wood, invasive introductions such as *Rhododendron ponticum* or Himalayan balsam should, where practical, be controlled.

## Operations likely to damage the special interest

# Site name: Croham Hurst, Greater London OLD1003374

### Ref. No. Type of Operation

- 1 Cultivation, including ploughing, rotovating, harrowing, and re-seeding.
- 2 The introduction of grazing.
- 3 The introduction of stock feeding.
- 4 Mowing or other methods of cutting vegetation.
- 5 Application of manure, fertilisers and lime.
- 6 Application of pesticides, including herbicides (weedkillers).
- 7 Dumping, spreading or discharge of any materials.
- 8 Burning.
- 9 The release into the site of any wild, feral or domestic animal\*, plant or seed.
- 10 The killing or removal of any wild animal\*, including pest control.
- 11 The destruction, displacement, removal or cutting of any plant or plant remains (including tree, shrub, herb, hedge, dead or decaying wood, moss, lichen, fungus, leaf mould, turf).
- 12 Tree and/or woodland management+.
- 14 The changing of water levels and tables and water utilisation (including irrigation, storage and abstraction from existing water bodies and through boreholes).
- 20 Extraction of minerals, including peat, shingle, sand and gravel, topsoil, subsoil, chalk, lime, limestone pavement, shells, and spoil.
- 21 Construction, removal or destruction of roads, tracks, walls, fences, hardstands, banks, ditches or other earthworks, or the laying, maintenance or removal of pipelines and cables, above or below ground.
- 22 Storage of materials.
- 23 Erection of permanent or temporary structures, or the undertaking of engineering works, including drilling.
- 26 Use of vehicles or craft likely to damage or disturb features of interest.
- 27 Recreational or other activities likely to damage or disturb features of interest.
- 28 Introduction of game or waterfowl management.
- \* 'animal' includes any mammal, reptile, amphibian, bird, fish or invertebrate.
- + including afforestation, planting, clear and selective felling, thinning, coppicing, modification of the stand or underwood, changes in species composition, cessation of management