Park Downs

Site Management Plan

2024-2033

SWT Ecology Services was commissioned by the Banstead Commons Conservators (BCC) to prepare ten-year management plans for Banstead Commons. This project was kindly sponsored by the Reigate and Banstead Community Infrastructure Levy Fund.

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Report amendments			
1.0	Original report		
1.1	Update in line with comments from BCC (received 12/02/2024)		
1.2	Update in line with further comments from BCC (received 07/04/2024)		
1.3	Update in line with further comments from BCC (received 05/02/2025)		

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Acronyms and abbreviations

Acronyms and abbreviations	Definition
BCC	Banstead Commons Conservators
BCT	Bat Conservation Trust
BNG	Biodiversity Net Gain
BOAs	Biodiversity Opportunity Areas
BoCC	Birds of Conservation Concern
CIEEM	Chartered Institute of Ecology and Environmental Management
DEFRA	Department for Environment, Food and Rural Affairs
EcIA	Ecological Impact Assessment
HPI	Habitats of Principal Importance
KPI	Key Performance Indicator
LNR	Local Nature Reserve
NERC	Natural Environment and Rural Communities
NPPF	National Planning Policy Framework
NVC	National Vegetation Classification
OPM	Oak Processionary Moth
PRoW	Public Right of Way
RAMS	Risk Assessment Method Statement
SAC	Special Areas of Conservation
SBIC	Surrey Biodiversity Information Centre
SNCI	Site of Nature Conservation Importance
SNP	Surrey Nature Partnership
SPA	Special Protection Areas
SPI	Species of Principal Importance
SSSI	Site of Special Scientific Interest
SWT	Surrey Wildlife Trust
TPO	Tree Preservation Order
W&CA	Wildlife and Countryside Act 1981

1 Vision statement

The vision for Park Downs is to maintain an area rich in biodiversity supporting excellent examples of lowland calcareous grassland, lowland mixed deciduous woodland and scrub. These habitats will continue to support a range of species, including Roman Snails and a good diversity of butterfly species. The site will be maintained in favourable condition.

The site will be managed by utilising an in-house operational team and a mixture of volunteer groups (in-house and corporate) and through grazing from livestock provided by the Downlands Partnership – Grazing Team. Access will be available across the site for the enjoyment of local people and walkers, while interpretation boards will inform visitors and viewpoints will add to the aesthetic of the site by providing wide landscape views.

The woodland management will focus on the removal of invasive and non-native species, opening up the understorey and canopy layers, with particular note taken to bringing the Hazel back into coppice and creating opportunities to allow mature trees to develop into veteran trees. Alongside this, haloing around notable trees will be undertaken to allow for them to fully develop.

The calcareous grassland will be managed predominantly through livestock grazing and cut and collect.

The site will be regularly surveyed for key species groups, this will feed into management of the site and will also aid monitoring at the site. All works will be coordinated with the relevant groups and authorities.

It is intended that this management plan will be a valuable resource to anyone with an interest in Park Downs and will help everyone work together towards the future wellbeing of the site. A flexible approach to management is important and, inevitably, the need for additional work may arise. In these circumstances, such tasks would be assessed according to the management objectives and priorities identified in this plan.

2 Summary

Surrey Wildlife Trust (SWT) Ecology Services was commissioned on 18 October 2022 by Banstead Commons Conservators to prepare a management plan for Park Downs to cover the years 2024 to 2033.

The aim of the management plan is to assess the importance of the biodiversity recorded on the site and determine suitable management in order to enhance biodiversity.

The following significant ecological features were identified on the site which have the potential to support locally, nationally and internationally important wildlife:

- Lowland calcareous grassland
- Lowland mixed deciduous woodland

Factors that were considered when producing this plan include:

- Value of these habitats and their potential to support notable species
- Legal and other obligations (including statutory site obligations and agri-environment scheme requirements)
- Public access / amenity value
- Monitor and review

Figure 1 presents the habitats recorded. Figure 2 shows the Statutory and Non-statutory Designations. Figure 3 shows the condition of the SSSI units as assessed by Natural England in 2022. Figure 4 shows the condition of the habitats assessed during the current survey using the Biodiversity Net Gain condition criteria (Natural England, 2023b). Figure 5 presents the proposed management measures. The works programme is detailed in Table 2 and the survey, monitor and review program is detailed in Table 3.

The main body of the report provides background and describes the management measures.

Table 1 details the biodiversity gains that could be generated as a result of implementing this management plan (further details of how this was calculated can be found in Appendix 3 and in the BNG Spreadsheet which was provided to the BCC as a separate document).

Table 1: Biodiversity gains

Headline results		Park Downs[1]
Onsite baseline	Habitat units	487.85
Onsite post-intervention	Habitat units	511.48
Total unit change	Habitat units	**+23.63**
Total % change	Habitat units	**+4.84%**

[1]

> 10 % gain	0 – 9% gain	< 0% gain

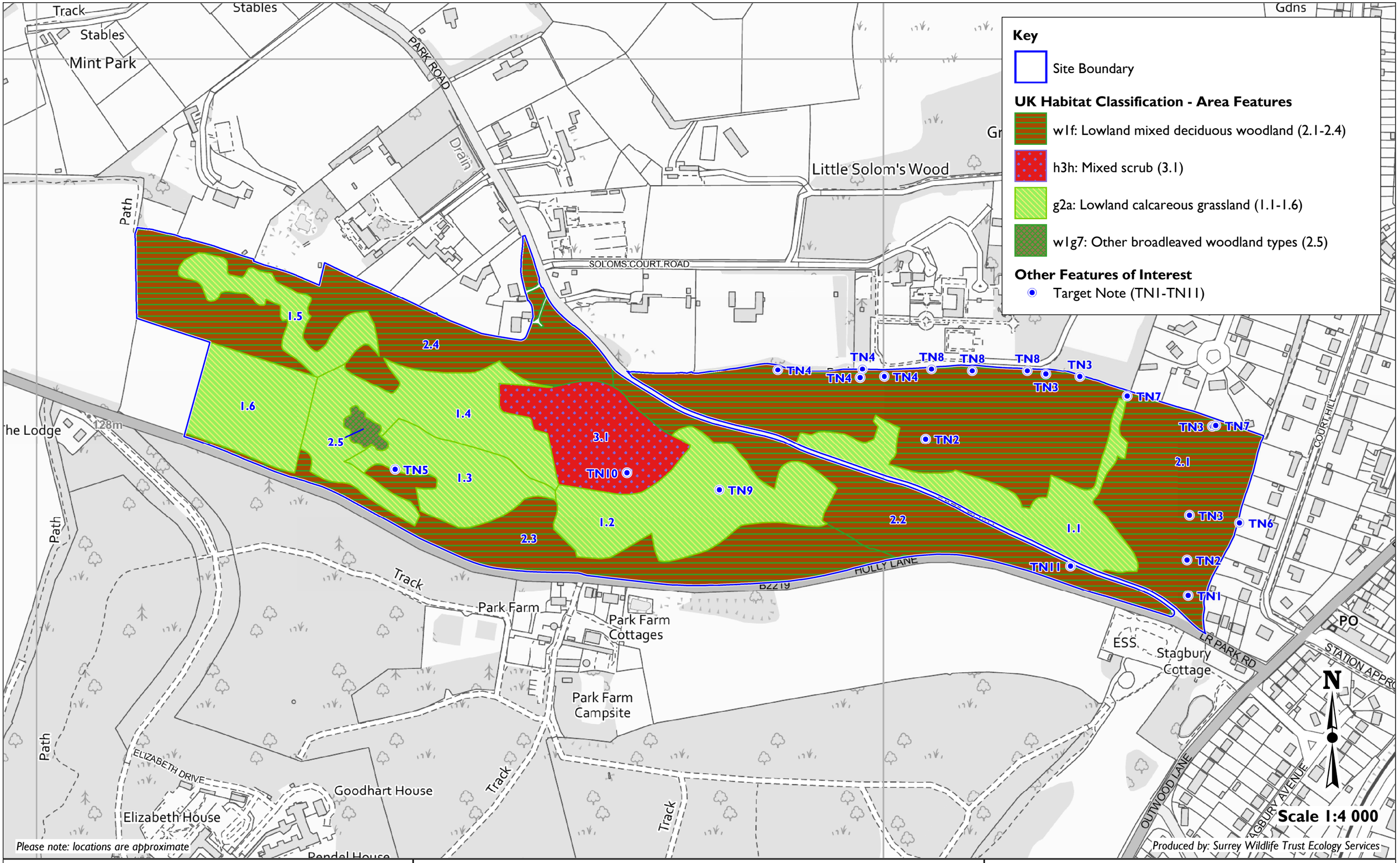

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Figure 1: Park Downs - Habitat Baseline Plan

(Survey Undertaken 12/06/2023)

Surrey Wildlife Trust
Ecology Services

Key

Site Boundary

Statutory Designated Sites

Site of Special Scientific Interest (SSSI)

Local Nature Reserve (LNR)

Non-statutory Designated Sites

Site of Nature Conservation Importance (SNCI)

Potential Site of Nature Conservation Importance pSNCI)

Ancient Semi-natural Woodland (ASNW)

Common Land

CRoW Act 2000 - Sec. 4
Conclusive Registered Common Land

Public Rights of Way

Footpaths

Bridleways

Permissive Rights of Way & Circular Walks

Permissive Bridleway

Banstead Countryside Walk

Scratch Wood pSNCI

Great Solom's Wood pSNCI

Banstead Woods & Chipstead Downs LNR

Chipstead Downs SSSI

Ruffett Wood SNCI

Dene Fields, Chipstead Valley SNCI

How Hills Golf Course SNCI

N

Scale 1:10 000

Please note: locations are approximate

Produced by: Surrey Wildlife Trust Ecology Services

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**Figure 2: Park Downs -
Statutory and Non-statutory Designations**

Surrey Wildlife Trust
Ecology Services

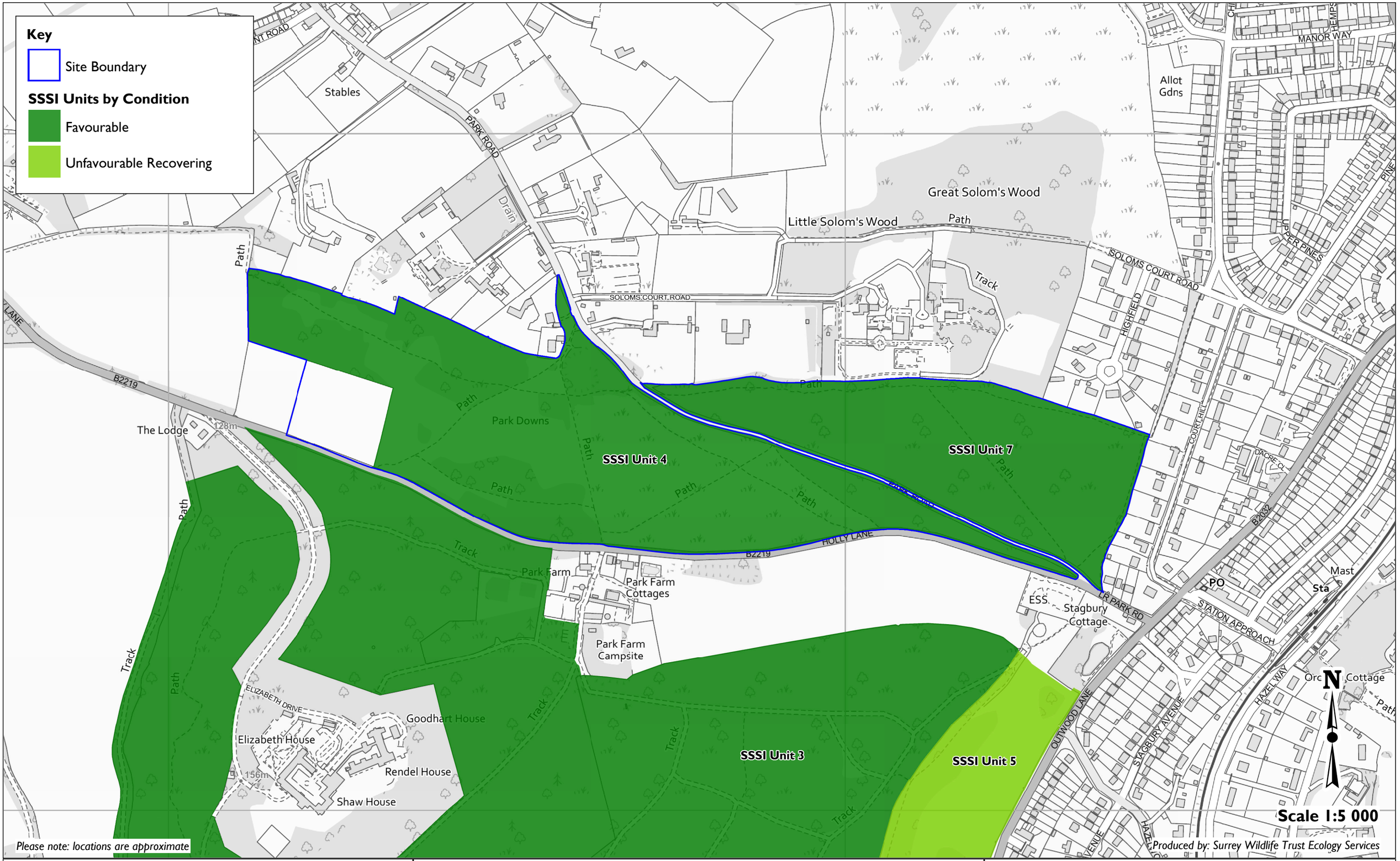

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Figure 3: Park Downs -
Natural England SSSI Unit Conditions

(All Units Assessed 2022)

Surrey Wildlife Trust
Ecology Services

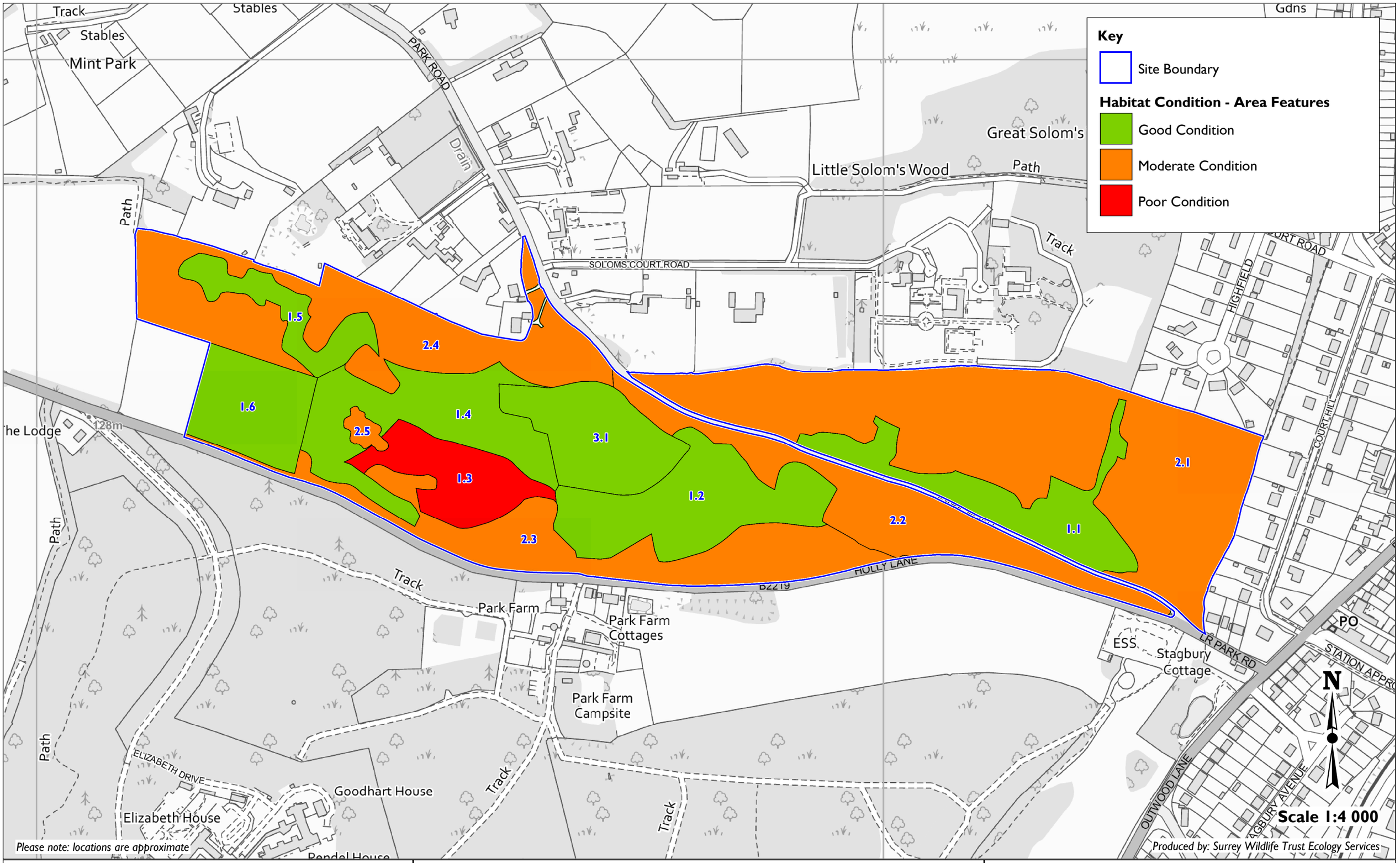

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Figure 4: Park Downs -
BNG Habitat Conditions
(All Units Assessed on 12/06/2023)

Surrey Wildlife Trust
Ecology Services

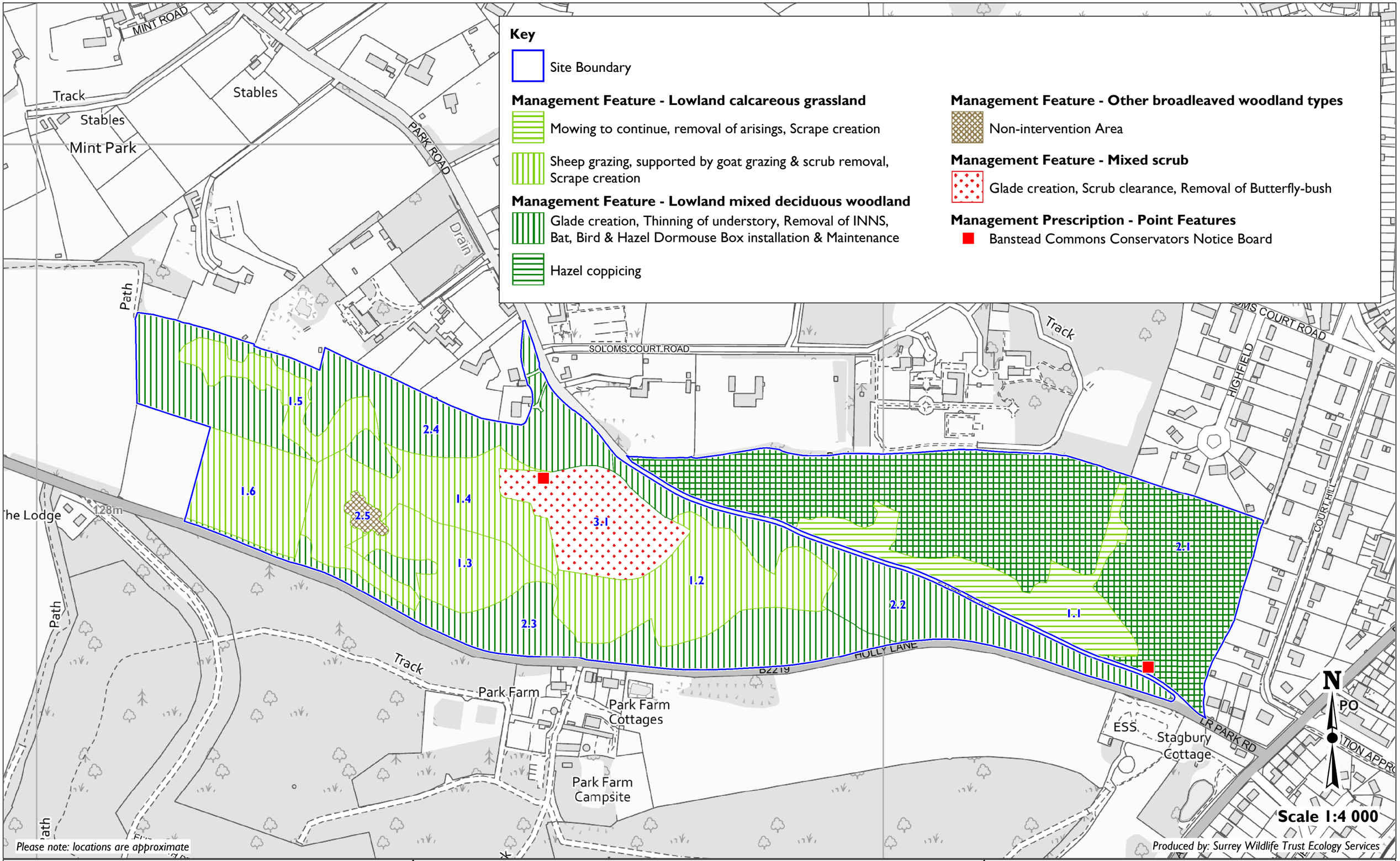

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Figure 5: Park Downs - Management Map

Surrey Wildlife Trust
Ecology Services

Table 2: Works programme

Feature	Objectives	Map reference	Management measure	Priority	Timing of works												Year required									
					Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
Calcareous grassland	To continue the management of the grassland and improve it for biodiversity.	1.1	Mowing regime to continue, ideally with removal of arisings	High																						
		1.2, 1.3, 1.4, 1.5 and 1.6	Primarily sheep grazing, supported by goat grazing and scrub removal where required	High																						
		1.2	Scrape creation, planting and protection of new juniper seeds as appropriate	Mod																						
		1.2	Monitoring of new seedling growth	Mod																						
		1.2	Clearing around current juniper bush	Mod																						
		1.3	Clearing around barberry and checking fencing	Low																						
Mixed scrub	To continue the management of the scrub to create a continual succession of habitat and improve it for biodiversity.	3.1	Glade creation	Mod																						
		3.1	Scrub clearance	High													1	2	3	4	5	1	2	3	4	5
		3.1	Removal of Butterfly Bush	Mod																						
Broadleaved woodland	To retain the current extent of broadleaved woodland and improve it for biodiversity.	Woodland	Regular tree safety surveys	High																						
		2.1, 2.2, 2.3 and 2.4	Glade creation	Mod																						
		2.1	Hazel coppicing	High																						
		2.1, 2.2, 2.3 and 2.4	Thinning of understory and other tree clearance	High																						
		2.1, 2.2, 2.3 and 2.4	Targeted removal of invasive and non-native species and monitoring of re-growth	Mod																						
		2.1, 2.2, 2.3 and 2.4	Install bat boxes	Mod																						
		2.1, 2.2, 2.3 and 2.4	Maintenance check of bat boxes	Low																						

Feature	Objectives	Map reference	Management measure	Priority	Timing of works												Year required									
					Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
Public access and amenity value	To maintain the public access across the site for enjoyment, recreation and education.	Whole site	Information delivered through talks and walks	Low																						
		Whole site	Visual inspection of paths and track, with maintenance where required	High																						
		Whole site	Maintain viewpoints	Mod																						
		Whole site	Removal of litter and fly tipping	High																						
		Whole site	Running of volunteer work parties	High																						
		Whole site	Visual inspection of furniture, with maintenance where required	Mod																						
		Whole site	BCC Quarterly Meeting open to the public	Mod																						
		Whole site	Quarterly meetings for the Banstead Commons Consultative Group																							
		Whole site	Implement and manage Professional Dog Walking Licence Scheme																							
		Whole site	Programme of public engagement including guided walks, Nature Detective Days and presentations to local groups and societies	Mod																						
Legal and other obligations	To comply with all legislation and other obligations relevant to the site.	Whole site	Up to date risk assessments for the site	High																						
		Whole site	Follow precautions in section 8.3 of management plan to prevent committing an offence under protected species legislation	High																						
		Whole site	Tree safety inspection	High																						
		Whole site	Patrol for site encroachments	Mod																						
		Whole site	Consult local council regarding tree preservation orders before any tree work takes place	High																						
		Whole site	Liaise with relevant organisations such as Reigate & Banstead Borough Council, Natural England and Forestry Commission	High																						

Feature	Objectives	Map reference	Management measure	Priority	Timing of works												Year required									
					Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
		Whole site	Liaison with the Downlands Parternership and other graziers	High																						

Table 3: Survey, monitor and review programme

Other focus point of management plan.	Objective	Map reference	Management measure	Priority	Timing of works												Year required									
					Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	32/33
Survey, monitor and review	This management plan will be monitored to ensure the objectives and targets are achieved. The plan should be reviewed in its entirety in 2033.	Grassland	Updated condition assessment of the grassland	Mod																						
		Grassland	Terrestrial invertebrate survey	Low																						
		Grassland	Enable UK Butterfly Monitoring Scheme (UKBMS) butterfly transect	Mod																						
		Grassland	Reptile transects	Low																						
		Scrub	Updated condition assessment of the scrub	Mod																						
		Woodland	Updated condition assessment of the woodland	Mod																						
		Woodland	Monitoring of the bat boxes	Low																						
		Woodland	Monitoring of the bird boxes	Low																						
		Whole site	Review progress towards achieving actions.	High																						
		Whole site	Update habitat map	Mod																						
		Whole site	Intermediate review of progress towards meeting targets	High																						
		Whole site	Review management plan and produce plan for the next 10 years.	High																						

3 Introduction

3.1 Background

SWT Ecology Services was commissioned on 18 October 2022 by Banstead Commons Conservators to prepare a ten-year management plan for Park Downs to cover the years 2024 to 2033. The development of the Site Management Plan was funded by the Reigate and Banstead Borough Council Community Infrastructure Local Fund and forms part of a larger project which will also see plans produced for the other sites managed by the Banstead Commons Conservators; Banstead Heath, Banstead Downs and Burgh Heath.

3.2 Scope of work

The scope of works included:

- A review of existing information for the site including past management plans, agri-environment schemes and past survey and monitoring data
- A data search for biological records within the site and an appropriate buffer
- A habitat survey following UK habitat classification methods
- Condition assessment of the vegetation on site and calculation of baseline biodiversity units
- An assessment of the likelihood of the site to support rare and/or protected species.
- Site visit and meeting with relevant staff
- Identification of important features of the site and setting of objectives and targets
- Description of management measures required to meet objectives and targets including a monitoring strategy
- Ten year work plan and associated mapping

The information and data provided have been prepared in accordance with current best-practice guidance (CIEEM, 2019b), (CIEEM, 2021), (BSI, 2013) and (BSI, 2021). Our ecologists are bound by CIEEM's 'Code of Conduct' (CIEEM, 2019b). For the detailed methodology see Appendix 3.

4 Legislative and planning policy framework

Certain designated sites, habitats and species are protected under UK legislation and planning policies. These have been taken into account when writing this plan and it is important that this is taken into account when carrying out management of the site or when planning any future improvements on the site. Section 8.2 considers legal and other obligations relevant to the management plan. Relevant legislation and planning policies are detailed in Appendix 7.

5 The site

Park Downs, presented in Figure 1, is bounded by residential housing to the north and east and a mixture of farmland and woodland to the south and west. It covers a total of 30 ha. The survey area is located in the borough of Reigate and Banstead. The site supports a mixture of grassland with scrub and woodland. The grassland and scrub is managed using cut and collecting and grazing.

Further information on the site, along with historical information collected is detailed in Appendix 1.

6 Site information and baseline conditions

6.1 Designated sites

The site forms part of Chipstead Downs SSSI (see Figure 2) which is noted for chalk grassland and ancient woodland. SSSI units 4 and 7 are within the site boundaries (see Figure 3). Both were assessed by Natural England in 2022 as in favourable condition. This has been considered likely a result of the management, with a mixture of sheep grazing and cut and collect. The assessments state that the grassland shows good herb diversity and aligns with requirements for National Vegetation Classification (NVC) chalk grassland communities.

6.2 Sites within the wider area

In addition to the statutory designated sites within the site itself, one statutory designated site was recorded within 1 km of the survey area, a Local Nature Reserve (LNR).

Three non-statutory designated sites, comprising Sites of Nature Conservation Importance (SNCI), were recorded within 1 km of the survey area.

The distance of these statutory and non-statutory designated sites from the survey area is presented in Table 4.

Biodiversity Opportunity Areas

A number of Biodiversity Opportunity Areas (BOAs) have been identified within Surrey. These areas are described by the Surrey Nature Partnership as **"***extensive areas where improved habitat management, as well as efforts to restore and re-create priority habitats will be most effective in enhancing connectivity to benefit recovery of priority species in a fragmented landscape. They are therefore the basis for achieving Sir John Lawton's vision of a 'coherent and resilient ecological network' in Surrey*."

The site is located within the North Downs BOA and as such is an important part of the local ecological network.

The following habitats have been identified as important in the area statements for this BOA:

- Calcareous grassland
- Mixed deciduous woodland

6.3 Public access/amenity value

Park Downs is the smallest site of the four areas managed by Banstead Commons Conservators. Lying on a steep south-facing slope opposite Banstead Woods, it offers spectacular views over the valley. Whist no specific parking or other facilities are available on the site, parking is available in the Banstead Wood and Park Farm car parks. The site supports part of the Banstead Countryside Walk as well as a permissive bridleway and other footpaths.

6.4 Ecosystem services

Park Downs provides invaluable ecosystem services which should not be undervalued. As well as providing space for wildlife and natural processes such as nutrient cycling and

photosynthesis, the site also contributes to sustainable drainage, flood and erosion control as well as contributing towards good air quality and carbon storage. Other important ecosystem services that the site provides includes cultural aspects such as its use for recreation and to improve people's physical health and mental wellbeing as well as providing a sense of place and opportunities for learning.

6.5 Ownership and management responsibilities

The site is owned by Reigate and Banstead Borough Council. Under statute, the Banstead Commons Conservators (BCC) are legally responsible for overall site management and maintenance. Reigate and Banstead Borough Council (RBBC) are responsible for some rights and duties associated with land ownership. Roadside verges are either managed by RBBC, BCC or Surrey County Council (SCC) depending on their accessibility and location.

6.6 Funding

Reigate and Banstead Borough Council provides an operational grant to contribute towards the management of the site. In addition, funding is provided through the Higher Level Stewardship (HLS - see below), grants and private donations.

6.7 Existing or planned agri-environment schemes and/or other agreements

The chalk grassland and areas of mixed deciduous woodland fall under a HLS agreement (see Appendix 2).

6.8 Recent management (past achievements)

The current management of the calcareous grassland includes:

- Cut and collect
- Sheep grazing

This has produced good results, as shown by the butterfly and plant monitoring schemes.

The current management of the woodland includes:

- Some historic coppicing of hazel
- Scrub management

6.9 Site restrictions

Common Land legislation prevents the enclosure of any part of the Commons. Under their Act, the Conservators may erect temporary grazing enclosures for the protection and improvement of the Commons. At the time of writing this report, there are three grazing compartments on the site. Sheep and goats are the preferred livestock to be used for conservation grazing on Park Downs.

As a statutory body, Banstead Commons Conservators funding opportunities are restricted. Reigate and Banstead Borough Council provide an operational grant and income is received through the Higher Level Stewardship scheme for Park Downs, Banstead Heath and Banstead Downs. This allows the BCC to employ two full time staff and two part time staff to manage over 1300 acres of land over the four sites: Banstead Downs, Banstead Heath, Burgh Heath and Park Downs. The limited funding means that management tasks are prioritised and it may not be possible to carry out all recommendations in this report.

6.10 Geology and soils

The majority of the site sits on shallow, lime-rich soils which are freely draining. Along the northern boundary of the site is a small area of freely draining, slightly acid, loamy soil.

The underlying bedrock is chalk, formed from the Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation. Sedimentary bedrock that was formed between 93.9 and 72.1 million years ago during the Cretaceous period. Along the southern boundary of the site are superficial deposits of gravel, sand, silt and clay. The sedimentary superficial deposit formed between 2.588 million years ago and the present during the Quaternary period.

Table 4: Statutory and non-statutory designated sites desk study results

Site name	Brief description	Distance from survey area (m)
Statutory designated sites		
Chipstead Downs SSSI	Situated on the dip slope of the North Downs, the Chipstead Downs complex includes areas of steeply sloping chalk grassland with associated scrub and secondary woodland, as well as large areas of ancient woodland over clay-with-flints on the plateau.	On site
Banstead Woods and Chipstead Downs LNR	Calcareous grassland downland and meadows holding notable flora including Fly Orchids, Ground Pine, Cut-leaved Germander. Beech and Yew woodland, orchards, veteran trees and pollards, coppice managed woodland.	0 km S (on boundary)
Non-statutory designated sites		
How Hills Golf Course SNCI	The site is selected for its calcareous grassland areas which support a high diversity of species. 31 plant species typical of grassland of conservation interest in Surrey have been recorded on the site. The site's position is important as it lies only 400 m from the Chipstead Downs Site of Special Scientific Interest.	400 E
Dene Fields, Chipstead Valley SNCI	The site is selected for its calcareous grassland habitat which supports a high diversity of species. 29 plant species typical of grassland of conservation interest in Surrey have been recorded on the site. Dwarf Spurge, Nationally Scarce, has been recorded on the site. The site's position is important adjacent to Fames Rough, part of Chipstead Downs Site of Special Scientific Interest.	600 S
Ruffett Wood SNCI	Ancient Semi-natural Woodland and calcareous scrub. Selected for more than 5 ha of Ancient Semi-natural Woodland habitat with 10 ancient woodland indicator species recorded.	700 W

6.11 Habitats

Desk study

Habitats recognised within SSSI citations

The following habitats are recognised within the SSSI citations for the site:

- Calcareous grassland
- Lowland mixed deciduous woodland

Waterbodies

No waterbodies were recorded within the site. However, one waterbody was recorded within 250 m of the survey area. This is a pond located 80 m south of the site (OSGR TQ 2736 5823).

Other small garden waterbodies that were not on available mapping may be present.

Ancient woodland and veteran trees

There are no parcels of ancient woodland found on site. However, 11 parcels of ancient woodland were identified within 1 km of the site, of which the closest is adjacent to the survey area along the southern boundary. The ancient woodland parcels within 1 km of the survey area total 109.6 ha.

Some veteran beeches were recorded within the woodland on the site.

Habitat survey results

Four habitats were recorded during the habitat survey: Lowland calcareous grassland, Lowland mixed deciduous woodland, Other broadleaved woodland types and Mixed Scrub. The location of these is presented in Figure 1. A summary of each habitat is provided in Table 5.

Table 5: Habitat survey results

Habitat and code	Compartment number	Description[2]	Condition[3]	HPI[4]
g2a: Lowland calcareous grassland **Secondary Codes:** 11 - Scattered trees, 13 - Scattered dwarf shrubs	1.1	Chalk grassland, with a sward height 5 to 150cm. 2% bare ground. Scattered tree and shrub cover up to 10 %. Species include abundant Cock's-foot, Common Rockrose, False Oat-grass, Sheep's Fescue and Yorkshire-fog, frequent Common Bird's-foot Trefoil, Dropwort, Common Knapweed, Creeping Buttercup, Hedge Bedstraw, Marjoram, Wild Parsnip, Upright Brome and Yellow-rattle. Agrimony, Salad Burnet Bramble, Dogwood and English Oak are occasional. Round-leaved Wintergreen is rare.	Good	Yes
g2a: Lowland calcareous grassland	1.2, 1.4, 1.5	Diverse chalk grassland, with a sward height 5 to 80cm. 2% bare ground. Species include abundant Upright Brome, Yorkshire-fog, Cock's-foot, Common Bird's-foot Trefoil and Wild Marjoram, frequent Sheep's Fescue, False Oat-grass, Perennial Rye-grass, Creeping Bent, Sweet Vernal Grass Common Knapweed, Common Sorrel, Dropwort, Hedge Bedstraw, Meadow Buttercup, Wild Parsnip, Salad Burnet, Sticky Mouse-ear, White Clover and Greater Yellow-rattle. Pyramidal Orchid was occasional and Dogwood rare.	Good	Yes
g2a: Lowland calcareous grassland **Secondary Codes:** 10 - Scattered scrub	1.3	Sward height 20cm to 3m. Area is a result of recent scrub removal transitioning back to calcareous grassland, with indicators present. 1% bare ground. Species include abundant Dogwood and frequent Sheep's Fescue, False Oat-grass, Yorkshire-fog, Common Sorrel, Hedge Bedstraw, Spear Thistle, Bramble and Goat Willow. Greater yellow-rattle, Salad Burnet and Dog Rose are occasional and Perforate St John's-wort rare.	Poor	Yes
g2a: Lowland calcareous grassland	1.6	This grassland supports a greater cover of herbs compared to grass than some of the other grasslands. Bare ground is ~2% and sward height is between 5 and 150 cm. Species include abundant Autumn Hawkbit and frequent False Oat-grass, Upright Brome, Hedge Bedstraw and Wild Marjoram. Cock's-foot, Rough meadow-grass, Yorkshire-fog, Common Bird's-foot Trefoil, Hairy St John's-wort, Hop Trefoil, Common Knapweed, Pyramidal Orchid, Red Bartsia, Red Clover, Ribwort plantain and Greater Yellow-rattle are occasional.	Good	Yes
w1f: Lowland mixed deciduous woodland	2.1	Mature mixed deciduous woodland with 95% canopy cover. Tree ages range from sapling to over mature with some signs of veteranisation. Good structure across woodland although ground flora heavily shaded out in most places. Canopy species include abundant English Oak, frequent Beech and Sycamore, occasional Ash, Silver Birch and Yew and rare Whitebeam. Shrub species include frequent Blackthorn, Dogwood, Hawthorn, Hazel and Spindle and occasional Elder. Ground flora species include abundant Ivy, frequent Bramble, occasional Early Dog Violet and Pendulous Sedge and rare Scaly Male Fern and Traveler's Joy.	Moderate	Yes
w1g7: other woodland; broadleaved	2.5	A large and well-established yew stand which has formed within the grassland. Trees are mature and suckering. Species include dominant Yew and occasional Traveller's Joy.	Moderate	No
w1f: Lowland mixed deciduous woodland	2.2, 2.3 and 2.4	Mature deciduous woodland with 95% canopy cover. Non-native invasive species present. Good structure across the woodland. Dense scrub layer is shading out ground flora in many places. Trees range from sapling to mature trees. Canopy species include abundant Pedunculate Oak, frequent Ash and Silver Birch and occasional Beech. Shrub species include abundant Hawthorn, frequent Elder and Hazel, occasional Blackthorn and Dogwood and rare Barberry. Ground flora species include abundant Bramble and Ivy, frequent Black Bryony and Common Nettle, occasional Dog Violet and Honeysuckle and rare hybrid Bluebell. The non-native invasive species Variegated Yellow Archangel is scattered within compartment 2.2.	Moderate	Yes

[2] Only species characteristic or important to that habitat have been included here, for full species list see Appendix 4

[3] According to the Biodiversity Net Gain (BNG) 4.0 criteria in (Natural England, 2023b). NB: this does not relate to the SSSI unit condition, which is measured under different criteria

[4] Habitat of Principal Importance

Habitat and code	Compartment number	Description[2]	Condition[3]	HPI[4]
h3h - Mixed scrub	3.1	Predominant scrub to 3m with some mature trees present. Species include abundant Bramble, Hawthorn and Silver Birch and frequent Dogwood, Pedunculate Oak, Hemp Agrimony, Dog Rose, Spindle and Sycamore. Blackthorn, Norway Maple, Traveler's Joy and Wild cherry are occasional. One Juniper and Butterfly-bush is rare.	Good	No

6.12 Species

Desk study

Below is a summary of known species information for the site gathered from past surveys and other documents relating to the site. It includes the results of the data search, received from SBIC on 4th January 2023, which lists protected species and species of conservation concern recorded within 1 km of the site. The full results of the data search are presented in Appendix 8.

Fauna

Invertebrates

Monitoring data for butterflies on the site is available from 2000 to 2023. 34 different butterfly species have been recorded.

The data search carried out by SBIC returned records of 25 notable invertebrate species within the site. Of which the following seven are listed within the Wildlife and Countryside Act (W&CA):

- Stag Beetle
- White-letter Hairstreak
- Brown Hairstreak
- Small Blue
- Roman Snail
- Sliver-spotted Skipper
- Chalk-hill Blue

Other notable species were noted from the data search within the site that are not listed under the W&CA. These include species such as Rufous grasshopper, Red-tail Mason Bee, Dingy Skipper and Grizzled Skipper.

In addition, the data search returned records of 35 notable invertebrate species within 1 km of the site.

The survey area supports suitable habitat for all species listed above, with the exception of Small Blue as the food plant, kidney vetch, is absent from the site. The chalk grassland is particularly diverse and therefore likely to support a large range of species. During the site visit Roman Snail were observed in good numbers.

Oak Processionary Moth (OPM) is present on Park Downs. As well as weakening the tree leaving it vulnerable to other threats, this species is also a hazard to human and animal health.

Amphibians

The desk study did not return records of amphibian species within the site. Common Frog has been recorded on the site.

The data search returned records of Smooth Newt, Common Frog and Common Toad within the 1 km search area. Common Toad is a Species of Principal Importance (SPIs).

There are no waterbodies located within the site boundary. One potential waterbody is located 80 m south of site which is suitably connected through habitat to the site.

Terrestrial habitat exists within woodland and grassland, particularly in areas with dead wood piles.

Reptiles

The desk study did not return records of reptile species within the site.

The data search returned records of Common Lizard and Slow-worm within the 1 km search area. All UK reptile species are SPI.

The survey area supports suitable habitat for Common Lizard and Slow-worm particularly within the grassland and scrub areas of the site. Grass Snake and Adder could also be present.

Birds

The desk study returned records of the following three bird species listed under BoCC Amber within the site: Wren, Wood Pigeon and Song Thrush. BCC has recorded a further five species: Common Whitethroat, Dunnock, Kestrel, Sparrowhawk and Tawny Owl.

In addition, the data search returned records of 68 notable bird species within 1km of the site, including:

- Thirteen W&CA species, such as Red Kite and Barn Owl.
- Fourteen SPI species, including Cuckoo and Tree Sparrow.
- Twentynine BoCC Red list species, such as Skylark and Starling.
- Thirty BoCC Amber list species, including Kestrel and Whitethroat.

The site supports suitable breeding bird habitat within the woodland, scrub and grassland.

Mammals

Badger

The desk study does not include Badger records and the local Badger Group was not consulted as part of the desk study. Historical records could therefore be held by the local Badger group.

The survey area supports suitable badger habitat within woodland and grassland for both setts and foraging. During the survey two Badger setts were found:

- A sett with four active holes which is considered likely to be an outlier sett.
- A sett with ten active holes which is considered likely to be a main sett.

A further sett has previously been recorded within woodland 2.4, but was not recorded during the site visit.

Bats

The desk study did not return records of bat species within the site.

Records of Common Pipistrelle and Brown Long-eared were returned as part of the data search within 1km of the site.

The following three habitats were recorded as being of moderate suitability for foraging and commuting bats. Details of these are provided in Table 6.

Table 6: Habitats in the survey area suitable for use by bats

Habitat	Suitable use for bats
Broadleaved woodland	Commuting, foraging and roosting
Chalk grassland	Foraging
Scrub	Foraging and commuting

No specific roosting features were noted as part of this assessment, however potential roosting features were seen within some of the mature trees on site.

Hazel dormouse

The desk study did not return records of Hazel Dormouse within the site.

In addition, the desk study did not return records of Hazel Dormouse within 1km of the site. Hazel Dormouse is an SPI.

The site does provide some suitable habitat for Hazel Dormouse within the woodland. The dense understorey with an abundance of nut and fruit producing shrubs provide good suitability. The site's connectivity to the wider landscape and particularly ancient woodland is broken by roads and gardens, however some connection does remain.

Other mammals

The desk study did not return records of notable mammals within the site but returned records for Hedgehog, Stoat and Pygmy Shrew from within 1 km of the site. BCC staff have recorded Rabbits and Badgers on the site.

Suitable habitat occurs on the site for a range of mammal species including; Hedgehog, Brown Hare, Harvest Mouse and Polecat. Hedgehog, Brown Hare, Harvest Mouse and Polecat are all SPIs.

Flora

The desk study returned records for the schedule 8 W&CA species Bluebell and Greater Yellow-rattle from within the site. Further to this, 35 notable plant species were recorded within 1 km of the site. Surrey Botanical Society (SBS) also collated a species list for the site, which can be found in Appendix 4.

150 vascular plants were recorded during the survey. This is a fairly typical number given the habitats present and the time of year. A list of vascular plant species recorded within each habitat type and their abundance is provided in Appendix 4. A table of all the notable flora from the SBS and the site visit is found below.

Table 7: Number of notable flora

Designation	Totals			Notes
	SWT	SBS	Combined	
Sch9	1	3	4	Schedule 9 of the wildlife and countryside act
Sch8	1	2	2	Schedule 8 of the wildlife and countryside act
LISI	3	5	5	London invasive species initiative

Designation	Totals			Notes
	SWT	SBS	Combined	
AWI	13	25	27	Six or more is a good argument for Ancient Woodland
GCI	31	71	74	At least 15 species, two of which should be rare, scarce or of conservation interest indicate a site of SNCI quality
AX	44	104	110	Sites with many axiophytes are usually of greater importance than those with fewer; and changes in the number of axiophytes in a site over time can be used for monitoring the outcome of management practices.
GB Rare	0	0	0	Species recorded in 15 or fewer native hectads in GB 2000-2019 in GB 2000-2019.
GB Scarce	0	2	2	Species recorded in 16-100 native hectads in GB 2000-2019.
Surrey Rare	0	3	3	Present at 1-3 sites in Surrey
Surrey Scarce	3	7	7	Present at 4-10 sites in Surrey
Surrey Declining	0	4	4	Declining in Surrey

Rare and notable species

The grassland and woodland have the potential to support rare/notable plant species. Some of these were picked up during the field survey, including Greater Yellow-rattle. Barberry has also been noted on site, while this is likely a naturalised plant species, it is a notable find as it was largely removed across the UK as it was a secondary host of a rust which affected Wheat and Barley.

Invasive and non-native plant species

The desk study returned records for the invasive non-native species Japanese Knotweed, Rhododendron and Virginia-creeper from within the site, with a further six species within 1 km of the site. These species were not picked up during the survey.

During the survey, Variegated Yellow Archangel was noted within woodland parcel 2.2, which is listed under Schedule 9 of the Wildlife and Countryside Act 1981, as amended.

Furthermore, Cherry Laurel (TN1 and 4 – Table 8), Butterfly-bush (TN2 and 3 – Table 8) and hybrid Bluebell (scattered through compartment 2.2), that are not listed on Schedule 9 but which are known to be non-native invasive species were also recorded during the survey.

In addition to plants, Grey Squirrel and Oak Processionary Moth (OPM) are non-native invasive species that have been recorded on the site.

Target notes

Details of target notes recorded during the survey are presented in the table below.

Table 8: Target notes

Target Note	Description
1	Cherry Laurel - south east corner of site
2	Butterfly-bush in woodland glade
3	Butterfly-bush in woodland
4	Cherry Laurel along northern boundary
5	Barberry
6	Sumac
7	Willow-leaved cotoneaster
8	Wilson's Honeysuckle
9	Unknown whitebeam
10	Juniper
11	Variegated yellow archangel

7 Management plan features

Based on the assessment above, the following ecological features have been selected as the focus of this management plan.

- Feature 1: Calcareous grassland
- Feature 2: Mixed scrub
- Feature 3: Broadleaved woodland

7.1 Feature 1 – Calcareous grassland

Assessment of significance

The site is a SSSI, of which chalk grassland is part of the designation. The grassland is therefore of national importance. The grassland is also likely to support protected and/or notable species, such as invertebrates, plants and reptiles.

Objective

The current area of calcareous grassland on the site will be maintained. The SSSI units will be in favourable condition and the habitat will meet the thresholds detailed within the HLS agreement.

Threats to habitat and associated species

Chalk grassland requires active management in order to retain its conservation interest. Without management, tall vigorous grasses will dominate, and dead plant matter will accumulate. This will suppress the less vigorous species and the botanical diversity of the grassland will decrease. Eventually without management natural succession will cause grassland to become scrub and if left eventually woodland.

If the grassland is managed by cutting without removing the arisings, the nutrients are not removed and a thatch of dead plant material will accumulate. This also can lead to tall vigorous grasses dominating and little opportunities for smaller, specialist plants to germinate.

The site has gardens bordering it on several sides, therefore encroachment by non-native garden species, such as Russian Comfrey (noted along the roadside which borders the site), should be monitored. These species have the potential to outcompete native species within the chalk grassland.

While grazing is an important part of management for the grassland, over grazing can present an issue whereby important species are suppressed. Grazing at the site will need to be monitored to avoid this becoming an issue.

Lowland calcareous grassland is considered to have low climate change sensitivity (Natural England and RSPB, 2020), with the ability to resist impacts from climate change being proportional to age of grassland and unimproved nature.

Management measures and rationale

Previous management

Grassland areas 1.2, 1.4, 1.5 and 1.6 have previously been managed through a mixture of sheep and goat grazing and cut and collect.

Grassland area 1.1 has been managed through cutting and leaving the arisings on the grassland. This has been done due to a mixture of access constraints and issues with finding a suitable location for the arisings to be stored.

Grassland area 1.3 has been managed through a recent removal of mature scrub. Currently the scrub stumps are being left in situ to rot down before cut and collect can begin.

Future management

The general and prescriptive management prescriptions for the areas of calcareous grassland under HLS must be always adhered to. A map of the areas under HLS and a full list of the management prescriptions can be referenced in Appendix 2.

Calcareous grassland

The main management techniques for calcareous grassland (compartments 1.2, 1.3, 1.4, 1.5 and 1.6) should be a combination of cut and collecting and conservation grazing to achieve an average sward height of between 2cm and 10cm in October/November. Grazing densities should be determined by the condition of the sward and prevalence of the measured indicators of success. Spring and summer grazing is permitted on Banstead Commons in consultation with Natural England.

At the time of writing this report, there are three grazing enclosures on Park Downs. The BCC work in partnership with the Downlands Partnership Grazing Team to conservation graze with sheep and work to a long-term grazing plan. Each grazing plan should map the grazing enclosures, management objectives for each enclosure and the monitoring methodology and indicators of success (as detailed in the HLS outcomes). Stocking densities and the time of the year the livestock are introduced to a grazing compartment will depend on the condition of the sward and the prevalence of the measured indicators of success which can vary year on year depending on weather patterns. The Downlands Trust Grazing Team give expert advice

to ensure appropriate grazing pressure and to safeguard the welfare of the sheep. Volunteers are used to carry out daily livestock welfare checks and are used to complement traditional management and hand remove woody scrub from the sward.

Supplementary feeding should not be carried out.

Mechanical cut and collecting is used on the areas that are not grazed and complement the grazing to ensure scrub does not encroach on the grassland. When mowing, areas will be cut in an irregular pattern at different heights to maintain diversity across the sward. Arisings should be removed from the grassland and discreet piles should be tucked in the adjacent wooded areas. In areas where it is not possible to cut and collect, consideration should be given to hand raking, although this would be a low priority action given the size of the site.

Changing the management order each year will help mimic grazing and ensure that there is always variety in timings. This will further add complexity to the sward. As different species will set seed earlier or later in the season, this varying order of management will reduce the strain on different species and their ability to survive within individual compartments.

Within each compartment, an area should be set aside that should not be grazed or cut back that year. This provides taller tussocky grassland with retained seed heads. This not only increases the ability for plants to set seed, but also retains important invertebrate habitat – many insect species will over-winter within plant stems as larvae or pupae. Over time, rotating this retained area will result in a complex sward.

All the SSSI land should remain in favourable condition. Indicators of success include but are not limited to:

- Achieve a sward height of between 2cm and 10cm in October and November.
- The Soil Phosphate Index should be 0 or 1 where practical.
- At least two high-value indicator species such as, Lady's Bedstraw, Horseshoe Vetch, Kidney Vetch, Milkworts, Salad Burnet, Dropwort, Squinancywort, should be frequent and two occasional in the sward.

The full list of the indicators of success/targets and KPIs are detailed in Table 10.

Successional scrub

Successional scrub parcels within the grassland must not exceed 40% of the overall combined area of dense scrub and grassland. The existing parcels present are within the threshold for the HLS agreement, and these should be maintained through grazing, and mechanically cutting back if grazing does not achieve aims or livestock are not grazed in that area due to resourcing requirements and rotational timings. The coverage of scrub over all calcareous grassland within the HLS agreement should be reviewed every two years, at the peak of the growing season (mid-summer) to ensure that management measures are retaining the correct threshold. This can be done through a combination of methods – the most simple is viewing publicly available satellite imagery e.g. Google Earth, however this may be unreliable as images may not be taken at the desired period. Drones are a very effective method of rapidly surveying large open habitats. On ground survey using existing staff or volunteers is another means of determining this, however this is resource heavy and may require more flexible timings.

Scrub should be managed as a dynamic habitat and can travel across the area as older plants die off/are cut back, and younger plants self-set. Allow scrub and surrounding taller grassland swards to develop by selecting small areas of these e.g. around woodland edges, with minimum intervention (i.e. no mowing, grazing). Vary the area every three years to create a dynamic, changing landscape (Buglife, 2013).

Manual scrub clearance will be required to supplement the grazing effort. Manual scrub clearance can be carried out at all times of the year so long as the area is surveyed for nesting birds prior to work commencing on the area.

Protecting the function of the SSSI and SNCI

As the calcareous grassland compartments fall within a SSSI, there are a number of requirements for managing these areas that must be adhered to, in order to protect the function of these designated habitats. These are summarised as follows:

- No drainage can be installed without agreeing in writing with Natural England.
- Where there are undesirable species present which require control, the method of control must be agreed with Natural England prior to carrying this out.
- When restoring grassland, ploughing, sub-surface cultivation and re-seeding are not permitted. All restoration must be through supporting the existing seedbed.
- Management/operations/stocking must not damage the soil structure or heavily poach the ground, ensuring that bare ground never exceeds 5% across grassland.
- Fertilisers, organic manures, waste materials or other sources of nutrients cannot be applied to the soil.

Juniper

Across the lowlands juniper has declined by up to 84%, with threats such as habitat loss, management change and climate change being particularly big threats. Many populations, such as the one at Park Downs, are considered functionally extinct due to isolation and small numbers. With just one male plant left at Park Downs and three other records locally, conservation action will be required in order to give this population a future. On the whole management recommendations should follow the Plantlife guide (Plantlife, 2011). On a site like Park Downs, reintroduction of female plants will be required to create a viable population again or seed collection from a donor site. The key factors will be:

- Creation of suitable scrapes for berry sowing, these should be of a suitable size
- Protection of these areas from livestock prone to browsing, seed shelters or fencing can be ideal
- A long-term plan for population protection

For the current male plant on site, to ensure longevity, scrub encroachment should be managed. Considering haloing this plant to remove any competition from scrub and continue to protect it from browsing damage.

Barberry

The current Barberry plant at the site is over all looking strong and healthy. It was noted that a fungal patina was present on some of the leaves, likely a mildew. It is recommended that improving airflow around the plant will improve this, as such managing the yews and other overhanging growth will benefit the plant, however, leaf litter should remain untouched as best as possible. Protecting from browsing pressure will also be important to allow plants to grow

unhindered. As a plant of woodland edges, this should be managed to create a suitable ecotone into the grassland. Should the population decline or regeneration of seedling not occur, specialist advise should be sought.

Table 9 presents a summary of the management measures.

Table 9: Feature 1 – calcareous grassland - management measures

Map reference	Action	Timing
1.1	Mowing regime to continue, ideally with removal of arisings	Spring (March or April) and Autumn (September or October)
1.2, 1.3, 1.4, 1.5 and 1.6	Primarily sheep grazing, supported by goat grazing and scrub removal where required	All year, as required
1.1,1.2, 1.3, 1.4, 1.5 and 1.6	Manual scrub management where required.	All year, as required
1.2	Scrape creation, planting and protection of new juniper seeds as appropriate	Years 1, 2 and 5 September to November
1.2	Monitoring of new seedling growth	Every year, April to August
1.2	Clearing around current juniper bush	Every 3 years, November to February
1.3	Clearing around barberry and checking fencing	Every year, February to March

Targets and KPIs

The targets and KPIs are detailed in Table 10.

Table 10: Feature 1 – calcareous grassland - targets and KPIs

Target type	Target Number	Target	KPI
SSSI & HLS – HK7	1	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** Extent of habitats of interest within the grassland and successional areas of scrub (as identified in the SSSI citation) should be maintained or increased	Extent of habitat of interest
SSSI & HLS – HK7	2	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** All SSSI land should be in favourable or recovering condition.	SSSI unit condition.

Target type	Target Number	Target	KPI
SSSI & HLS – HK7	3	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** The soil phosphate index should be 0 or 1 where practicable.	Soil phosphate index.
SSSI & HLS – HK7	4	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** At least 2 high value indicator species such as Autumn Gentian, Bird's-foot Trefoil, Harebell, Hoary Plantain, Agrimony, Lady's Bedstraw, Mouse-ear Hawkweed, Marjoram, Small Scabious, Squinancywort, Bastard Toadflax, Clustered Bellflower, Wild Thyme, Kidney Vetch, Horseshoe Vetch, Meadow Oat-grass, Quaking Grass, Upright Brome, Yellow Oat-grass should be frequent and 2 occasional in the sward. By 2028, at least 4 high value indicator species frequent.	Floral diversity and abundance
SSSI & HLS – HK7	5	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** Cover of wildflowers in the sward (excluding undesirable species but including rushes and sedges) should be between 20% and 60%. At least 30% of wildflowers flowering May-July	% cover of wildflowers % wildflowers flowering (May-July)
SSSI & HLS – HK7	6	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** Cover of bare ground between 1% and 5% distributed throughout the field in hoof prints or other small patches	Bare ground extent
SSSI & HLS – HK7	7	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** At least 4 high value indicator species for the BAP habitat feature lowland calcareous grassland should be frequent in the sward	Floral diversity and abundance
SSSI & HLS – HK7	8	**Compartments1.1, 1.2, 1.3, 1.4, 1.5 and 1.6** In all years, populations of nationally rare, nationally scarce,	Floral diversity and abundance

Target type	Target Number	Target	KPI
		locally significant species should be maintained	

7.2 Feature 2 – Mixed scrub

Assessment of significance

The site is a SSSI, of which scrub is not part of the designation. The scrub is likely to support protected species, such as notable invertebrates and breeding birds. The mixed scrub is therefore of local importance.

Objective

Retain the current area and increase the biodiversity value of the mixed scrub on the site. The site is under an HLS Agreement therefore particular management prescriptions will need to be followed.

Threats to habitat and associated species

Scrub requires active management in order to retain its conservation interest. Without management, trees and larger shrubs will over grow and become leggy. This will cause the understorey to become less dense which becomes less suitable for breeding birds. Eventually without management natural succession will cause scrub to become woodland.

Hotter, drier summers and wetter winters with more extreme weather events are predicted as a result of climate change. This is likely to threaten certain plant species within scrub. For example, fewer frosts may reduce bud, flower and fruit production. The longer growing season may mean that more management is required to prevent plants becoming leggy and tall (Natural England and RSPB, 2020).

Management measures and rationale

Previous management

The scrub has been subject to rotational clearance at various points across the site's management history.

Future management

The HLS option HC16 'restoration of successional areas and scrub' covers this habitat on site. The HLS agreement states that "the aim of this option is to maintain habitat mosaics at the field and landscape scale". It states that "the option will require some form of regular management of vegetation, such as extensive grazing, on part or all of the site to maintain suitable conditions for species and to prevent development of woodland."

The aim will be to maintain a variety of shrub species with a diverse age and height structure with grasses and wild flowers including those typical of chalk grassland present at the edges and within glades and/or rides.

Scrub will be managed using mechanical methods on a five year rotation. This will allow the scrub to mature, flower and fruit but will prevent it becoming leggy.

Cutting of dense scrub habitat should be achieved by an operator on foot using a brushcutter or heavier machinery using a hydraulic arm to reach the scrub outside of the breeding bird nesting season, September to February inclusive. Any management of scrub habitat using machinery within the breeding bird season, March to August inclusive, should be avoided or undertaken under supervision of a suitably experienced ecologist.

Butterfly-bush was recorded as present within the scrub, while this can be beneficial to invertebrates, it is also non-native and can be invasive within semi-natural habitats. Targeted removal of Butterfly-bush should be undertaken.

Table 11 presents a summary of the management measures.

Table 11: Feature 2 – mixed scrub - management measures

Map reference	Action	Timing
3.1	Scrub clearance	September to February every year, on a five year rotation
3.1	Removal of butterfly bush	September to February in year 1, monitor for regrowth

Targets and KPIs

The targets and KPIs are detailed in Table 12.

Table 12: Feature 2 – mixed scrub - targets and KPIs

Target type	Target Number	Target	KPI
HLS – HC16	9	**Compartment 3.1** A variety of shrub providing nectar and berries should be present.	Number of shrubs
HLS – HC16	10	**Compartment 3.1** Cover of shrub species (Juniper, Box, Hawthorn, Blackthorn, Hazel, Field maple) should be between 20 and 60% of the area. The vegetation within 2 m of the edge of the scrub should be taller than 30 cm.	Cover of shrubs
HLS – HC16	11	**Compartment 3.1** Shrub species should have a diverse age and height structure. No more than 50% of the scrub area should be mature or over mature.	Shrub structure
HLS – HC16	12	**Compartment 3.1** Tree species should be present at irregular spacings with an overall canopy of between 5-10% of the area	% tree canopy cover
HLS – HC16	13	**Compartment 3.1** Grasses and wild flowers including those typical of chalk grassland should be present at the edges of the area	Presence of grasses and wildflowers typical of chalk grassland
HLS – HC16	14	**Compartment 3.1** Undesirable species including ragwort and creeping thistle and other invasive species should be no more than occasional.	Abundance of undesirable species
HLS – HC16	15	**Compartment 3.1** All SSSI land should be in favourable or recovering condition.	Condition of SSSI units
BNG	16	**Compartment 3.1**	Condition of scrub according to BNG (Natural England, 2023b)

Target type	Target Number	Target	KPI
		All scrub compartments will maintain good condition (BNG) until 2033	

7.3 Feature 3 – Broadleaved woodland

Assessment of significance

The site is a SSSI, of which broadleaved woodland is part of the designation. The woodland is therefore of national importance. The woodland is also likely to support protected species, such as breeding birds and bats.

Objective

Retain the current area and increase the biodiversity value of the woodland on the site.

Threats to habitat and associated species

Left unmanaged, woodland tends to deteriorate in terms of biodiversity value. This is generally due to a loss of open space due to a closure of the tree canopy, although this can be beneficial for some such as bats. A dense canopy can lead to a loss of ground flora and associated species such as butterflies as well as a lack of tree regeneration. A balance of dense and open woodland is key.

Overzealous removal of standing and fallen deadwood can remove the habitat for a number of protected and notable species that rely on this habitat.

Other threats to woodland include the spread of invasive plant species such as Variegated Yellow Archangel, Butterfly-bush, non-native conifers and Sycamore which have been recorded within the woodland on this site.

Dumping of waste vegetation within woodland areas can cause nutrient enrichment and the spread of non-native species.

Grazing animals such as deer and invasive non-native Grey Squirrel can cause significant browsing damage to trees. Numbers of Grey Squirrel in England have been increasing in recent years and are predicted to continue rising (Matthews, 2018). Numbers of deer such as Roe Deer and Muntjac have increased in recent years and Muntjac is predicted to continue rising although Roe Deer are now considered to be stable (Matthews, 2018).

Tree diseases such as ash dieback will cause the loss of some trees over the coming years. This loss of trees will alter the structure of the woodland and the species composition.

The effects of climate change over the next decade are likely to have significant impacts on the woodland habitat. The greatest threat to woodlands from climate change is likely to be an increase in the frequency and severity of summer drought. This could lead to an increase in stressed trees which are more susceptible to insect pests and diseases (Natural England and RSPB, 2019). In addition the majority of insect pests that currently affect UK woodlands are likely to benefit from climate change as a result of increased activity and reduced winter mortality (Broadmeadow, 2005). In addition the risk of wind-throw may increase if the UK experiences more storms (Natural England and RSPB, 2019).

Management measures and rationale

Previous management

The woodland has been subject to some hazel coppicing in the past however, this has been occasional and localised. Much of the woodland has had minimal intervention.

Future management

In line with the HLS agreement the following rules apply to the woodland:

- Control of all non-native conifers, Poplar and Sycamore
- Mature and over-mature tree works should only be undertaken for health and safety purposes and must be pre-agreed with Natural England
- No new drainage or modification to existing drainage

Management of the woodland onsite should look to increase structural diversity as this will increase the available niches, specifically thinning of the understorey in selected areas. These areas will need to be determined on the ground based on density of understorey but should aim to create a mix of densities. The main ways this should be achieved will be through coppicing of hazel and creation of clearings and rides. When any thinning activities are undertaken, the trees targeted should be a range of ages and species to prevent a monoculture occurring. As the site is regularly used by dog walkers, use of dead hedging around clearings should be considered to reduce disturbance. Glades should cover no more than 10% of the woodland area. Once created the glades should be left to naturally regenerate and then re-cleared once every ten years. Glades should be created on a rotation of one every 3 to 4 years.

For Hazel coppicing, the Hazels should be grouped into subsets of ideally 10 plants. Each of the subsets should be coppiced on a ten-year rotation. This will create a continuous gradation of hazels at different stages of regrowth which will produce a range of habitats.

Some of the mature and veteran trees would also benefit from clearance of younger trees from under or near their canopy. This will allow space for the trees to grow larger and form features suitable for other fauna to use.

In line with the HLS requirements all non-native conifers, Poplars and Sycamore will need to be controlled. At minimum this should include removal of saplings with stump treatment. In areas where heavier clearance would be beneficial, old trees could be ring barked. This will produce significant standing deadwood while also stopping the tree from producing seeds. Where health and safety is an issue the tree could be monolithed (removal of all limbs to leave the trunk standing) or as a last resort, completely removed.

The presence of deadwood within woodland is very important for a range of species, particularly fungi, invertebrates, birds such as the Great Spotted Woodpecker and mammals such as bats. A mixture of standing and fallen deadwood is important as they provide different conditions and support different species. Dead trees will only be felled where necessary for health and safety reasons and where possible only the dangerous branches will be removed rather than the whole tree. In addition, dying Ivy stems on trees should be retained for their specific invertebrate community.

Where Common Ivy is present, it should be left and not removed from trees. Dense ivy is an excellent habitat for nesting birds and also provides an excellent late summer nectar source and supply of berries late into the winter.

Work in woodlands will avoid the bird nesting season (typically 1st March to 31st August). Work will not be carried out when the ground is particularly soft to avoid damaging the soil.

A lack of suitable roosting sites can be a limiting factor for the presence of certain bat species on a site and can limit the increase in numbers of others. Two groups of three bat boxes will be installed. Within each group, the boxes will be located on one or nearby trees but facing different aspects. This is recommended by the Bat Conservation Trust (BCT) to provide a number of different options of temperature that the bats can move between based on their needs. At least one of the boxes in each group will have a south easterly to south westerly aspect. Most bat species will use higher positioned boxes (approximately 4 m high). This will help protect the bats from vandalism and potential predators (Bat Conservation Trust, 2018). It is important to locate access points where they are unobstructed by vegetation (see Appendix 11 for further information on installing bat boxes).

Once installed the bat boxes should only be disturbed by an ecologist with a bat licence. It may be that a partnership could be developed with the Surrey Bat Group who may be able to monitor the bat boxes.

Tree safety will be ensured by following the BCC Tree Inspection Policy (Banstead Commons Conservators, 2023a) and Methodology (Banstead Commons Conservators, 2023b).

The management and guidance as set out by the Forestry Commission for the management of OPM on Banstead Commons will be accorded with as well as reporting all new sightings of OPM via Tree Alert.

Invasive and non-native species

A variety of invasive and non-native species, including four on schedule 9 of the W&CA (variegated yellow archangel (TN11) and noted on the SBS records wall cotoneaster, Himalayan cotoneaster and Japanese knotweed), occur on site, mainly within the woodland where it abuts gardens. Where possible these populations should be removed or at least managed to prevent further spread and decline of the current habitat. For the plants present it is recommended that the following actions are taken:

- For woody plants, such as cotoneaster and butterfly bush, these should be cut to near ground level and stump treated, or hand dug out for smaller plants.
- For herbaceous plants, such as the variegated yellow archangel, hand pulling is the best method of removal, spot herbicide treatment can be considered but would have to be carefully selected to prevent damage to other plants
- Plants should be removed prior to producing fruit and disposed of at a suitable waste site.
- Where plants are removed, monitoring of these area for any regeneration or regrowth will be required, and treatment is likely to take several years

The longer term solution will be working with neighbouring properties and using education tools onsite to prevent initial establishment and to allow quick reporting of any new plants.

Table 13 presents a summary of the management measures.

Table 13: Feature 3 – broadleaved woodland - management measures

Map reference	Action	Timing
General woodland	Regular tree safety surveys Fell/make safe Ash with signs of Ash dieback as necessary for health and safety reasons	As required (Sept-Feb)
2.1, 2.2, 2.3 and 2.4	Glade creation	September to February in years 1, 3, 6 and 9
2.1	Hazel coppicing	September to February every year
2.1, 2.2, 2.3 and 2.4	Thinning of understorey and other tree clearance	September to February every year
2.1, 2.2, 2.3 and 2.4	Install bat boxes	September to February in year 1
2.1, 2.2, 2.3 and 2.4	Maintenance check of bat boxes	Yearly October to November
2.1, 2.2, 2.3 and 2.4	Removal of invasive and non-native species	November to April in years 1-5
2.1, 2.2, 2.3 and 2.4	Monitoring of regrowth of invasive and non-native species	Yearly May to August

Targets and KPIs

The targets and KPIs are detailed in Table 14.

Table 14: Feature 3 – broadleaved woodland - targets and KPIs

Target type	Target number	Target	KPI
HLS / SSSI	17	**Compartments 2.1, 2.2, 2.3 and 2.4** All SSSI land should be in favourable or recovering condition.	Condition of SSSI units
BNG	18	**Compartments 2.1, 2.2, 2.3 and 2.4** All woodland compartments to be in moderate to good condition by 2033	Achieved requirements on the BNG condition sheet for woodland
General enhancement	19	**Compartments 2.1, 2.2, 2.3 and 2.4** At least 6 bat boxes on trees throughout site by 2033	Number of bat boxes

8 Other focus points considered within this plan

In addition to the habitat features above, the following aspects are also important focus points of this management plan;

- Focus point A - Public access and amenity value
- Focus Point B - Legal and other obligations
- Focus Point C - Survey, monitor and review

8.1 Focus point A - Public access and engagement

Objective

To maintain safe public access across the site for enjoyment, recreation and education.

Management measures and rationale

In order to achieve this objective, the public footpaths and permissive horse ride will be regularly monitored and kept free of obstructions and encroaching vegetation. Litter picking and the removal of fly-tipping will be undertaken regularly.

Commencing April 2025, Professional Dog Walkers will be required to sign up to a Professional Dog Walking Licence Scheme to operate on Park Downs. Regulating this commercial activity will gives reassurance to other users of the Commons that companies using the site are doing so safely, they are insured, and wildlife and habitats are preserved.

Banstead Commons Conservators manage regular practical work parties for volunteers to get involved in local conservation on Park Downs including scrub management and invasive species removal.

Quarterly Meetings are a statutory requirement and are open to the public. In addition, the Conservators facilitate a consultative group made up of user groups and biological recorders and liaison meetings with primary funders Reigate and Banstead Borough Council both of which are held quarterly.

A programme of public engagement opportunities are held each year and include guided walks, Nature Detective Days and presentations to local groups and societies.

Table 15: Focus point A - public access and amenity value – management measures

Compartment reference	Action	Timing
Whole site	Visual inspection of paths and track, with maintenance where required	Every 3 months
Whole site	Maintain viewpoints	Every 6 months
Whole site	Removal of litter and fly tipping	Every 3 months with fly tipping removed as soon as possible
Whole site	Running of volunteer work parties	Throughout the year
Whole site	Visual inspection of furniture including notice boards, with maintenance where required	Once a year
Whole site	BCC Quarterly Meetings open to the public	Every 3 months
Whole site	Quarterly meetings for the Banstead Commons Consultative Group	Every 3 months
Whole site	Programme of public engagement including guided walks, family bioblitz days and presentations to local groups and societies.	Throughout year
Whole site	Implementation and management of Professional Dog Walking Licence Scheme	Throughout year

8.2 Focus point B - Legal and other obligations

Objective

To comply with all legislation and other obligations relevant to the site.

The following legislation is relevant to the site:

- Metropolitan Commons 1866 and Metropolitan Commons (Banstead) Supplementary Act 1893.
- Commons Act 2006
- Health and Safety at Work Act 1974
- Wildlife & Countryside Act 1981(as amended)
- Protection of Badgers Act 1992
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- Environment Act (2021)
- Countryside and Rights of Way Act 2000
- Natural Environment and Rural Communities Act 2006

- Wild Mammals (Protection) Act 1996
- Forestry Act 1967 (as amended) – Felling Licences

Management rationale

In order to achieve this objective, liaison will take place as required with relevant authorities such as Reigate and Banstead Borough Council, Natural England and the Forestry Commission. A risk assessment will be in place for the site. An annual assessment will be made for encroachments. Table 16 presents the management measures, supported by the rationale detailed in the sections below.

An assessment of the likelihood of protected species being present on the site can be found in section 7.3 above and a summary of relevant legislation can be found in Appendix 7. Below is an outline of action that will be taken to prevent committing an offence under the relevant legislation.

Roman Snails

Roman Snails have been observed at the site. This species is protected under Schedule 5, Section 9 (1, 2 & 5a) of the W&CA.

Any management activities that would result in the killing/injury or translocation of this species would require a licence from Natural England in order to proceed. All staff and any contractors or volunteers should be made aware of how to identify this species, and due diligence should be made to check for its presence prior to any invasive management procedures.

Reptiles

The survey area supports suitable habitat for Slow-worm and Common Lizard. These species are protected under Schedule 5, Section 9 (1 & 5a) of the W&CA and are SPIs.

Ideally a reptile survey will be undertaken in order to establish which reptile species are present on the site and their key areas. Before this information is known the following precautions should be undertaken when managing suitable areas;

- mowing of areas of long grassland should only take place during the summer months when reptiles are active and can move away from harm.
- a high cut (above 10cm) will be undertaken where possible to avoid injuring reptiles.
- if possible, each block of grassland will be cut in intervals staggered over a few weeks so that there is always sufficient cover available and some longer sections of grassland (cut biennially) will be retained as a refuge following the annual cut.
- care will be taken to avoid cutting any obvious large grass tussocks or ant hills which can be used for refuge and reptile hibernating sites.
- areas of dead wood or vegetation piles will only be moved during the summer months as they may be used by hibernating reptiles in the winter months.

Breeding birds

The broad-leaved woodland, scrub, and grassland habitats have the potential to support nesting birds. Any management of trees, grassland and scrub will be undertaken outside the bird nesting season (which is typically 1st March to 31st August inclusive) unless there is an overriding need e.g. health and safety. Where this is the case, the area should be checked for

nesting birds prior to commencing the activity, and delayed if required in order for chicks to successfully fledge.

Badger

Badgers and their setts are protected under the Badgers Act 1992 (as amended). There are two identified and active setts within woodland 2.1, with a further sett previously identified within woodland 2.4. Any works using plant or breaking ground within 30 m or hand tools within 10 m of these setts or any newly identified setts are likely to require a licence. Should works in these areas be required, an ecologist should be contacted to discuss the best way forward.

Bats

The survey area supports suitable bat habitat including roosting opportunities within the broadleaved woodland and mature trees found in other habitats. Foraging and commuting opportunities for bats also exist over the grassland and scrub.

As far as possible, all the mature trees on site will be retained. If any works are planned for mature trees with holes, split limbs or ivy cladding a preliminary ground level roost assessment of trees (PGLRAT)) and/or survey will be undertaken prior to any work taking place.

The Forestry Commission and Natural England, with assistance from relevant conservation organisations, have produced guidance to help understand the legislation and to use good practice to operate within the law, avoid the need for licensing and benefit European protected species. Following the guidance will show that site managers have taken all reasonable steps to comply with the regulations (Forestry Commission, 2013).

Hazel dormouse

Although no Hazel Dormouse has been recorded on the site, as there is potential habitat and they could be present at low densities, a precautionary approach to woodland management works should be employed. The good practice guidelines produced by the Forestry Commission should be followed (Forestry Commission, 2019b). In summary this advises that woodland management work should be undertaken between November and the end of February when hazel dormouse are hibernating on the ground. Hand tools only should be used to minimise disturbance to the ground. Should a Hazel Dormouse or nest be found during any site works, these will need to cease immediately and an ecologist contacted for advice.

Tree safety

There is a legal duty of care for BCC to take all reasonable steps to identify possible sources of foreseeable danger and, as far as is reasonably practical, to remove or manage them on land that is under BCC's management.

To enable these priorities to be met sufficiently regarding tree safety on the Commons, the BCC has adopted a Tree Inspection Policy (Banstead Commons Conservators, 2023a) and Methodology (Banstead Commons Conservators, 2023b) which is adhered to when carrying out tree inspections.

Tree preservation orders

It is unknown whether any of the trees on the site are covered by Tree Preservation Orders (TPOs). The Local Council will be consulted regarding this before work to any trees takes place.

Felling licence

Felling or thinning trees may require a felling licence issued by the Forestry Commission and any tree management should be undertaken in the winter months between November and February (inclusive). In any calendar quarter you are allowed to fell up to $5m^3$ on your property without a felling licence. You are also allowed to lop off branches without a felling licence and remove trees under around 10cm in diameter at breast height.

For woodland compartments where some thinning is recommended an exception to the $5m^3$ per calendar quarter applies to trees that have a diameter over bark of 10cm or less when measured 1.5m from ground level. For existing areas of coppice the exception applies to trees with individual stems that have a diameter over bark of 15cm or less (Forestry Commission, 2020).

Biosecurity

8.2.1 It is important that biosecurity measures are considered to reduce the spread of non-native species and diseases within and between sites. See Appendix 10 for basic biosecurity advice.

Table 16: Focus point B - legal and other obligations – management measures

Compartment reference	Action	Timing
Whole site	Follow precautions in section 8.3 of management plan to prevent committing an offence under protected species legislation	Ongoing
Whole site	Ensure an up-to-date RAMS is in place for any work being undertaken	As required, to be updated once every 6 months at minimum.
Whole site	Liaise with relevant organisations such as Reigate & Banstead Borough Council, Natural England and Forestry Commission	As required
Whole site	Tree safety inspection	Once a year
Whole site	Patrol for site encroachments	Regularly when on site
Whole site	Consult local council regarding tree preservation orders before any tree work takes place	As required

8.3 Focus point C - Survey, monitor and review

Objective

This management plan will be monitored to ensure that the management remains effective and that the objectives and targets are achieved. Adequate survey data for the species and

habitats should be used to inform management activities. The plan will be reviewed in its entirety in 2033.

Management rationale

It is important that adequate survey and monitoring takes place so that sufficient information is available to make the best management decisions. It will also enable the KPIs to be reviewed and progress against targets assessed. This will highlight whether a change to management action is required. A summary of the survey and monitoring work to be carried out is given in Table 17 below.

The habitats on site will be monitored to ensure that targets are being met. As part of this an updated condition assessment of the habitats will take place after 5 and 10 years. A check for non-native invasive plant species will be undertaken annually. The number, condition and use of bird, bat and dormouse boxes will be monitored annually.

Local species groups, such as the Surrey Bat Group, Surrey Amphibian and Reptile group and Surrey Dormouse Group could be approached for assistance around species survey and monitoring.

Progress towards achieving the actions within this management plan will be reviewed annually with a more detailed review of progress towards achieving targets in 2028. The action plan will be amended as necessary to ensure that it remains realistic.

This management plan is designed to cover the next 10 years. In 2033 the entire management plan will be reviewed and ideally a new plan developed for the next 10 years. It should be noted that BNG targets span 30 years, these will need to be taken over to the new plan as required.

Table 17: Focus point C - survey, monitor and review – management measures

Compartment reference	Action	Timing
Grassland	Updated condition assessment of the grassland (to encompass HLS targets and BNG metric 4.0 condition criteria)	Years 5 and 10 (May-Aug)
Grassland	Terrestrial invertebrate survey	Three surveys over summer undertaken every 5 years
Grassland	Butterfly transects, done in line with the UK Butterfly Monitoring Scheme (UKBMS)	26 weekly transects between April and September
Scrub	Updated condition assessment of the scrub (to encompass HLS targets and BNG metric 4.0 condition criteria)	Years 5 and 10 (May-July)
Woodland	Updated condition assessment of the woodland (BNG metric 4.0 condition criteria)	Years 5 and 10 (March-May)
Woodland	Monitoring of the bat boxes	Once a year between May to August

Compartment reference	Action	Timing
Woodland	Monitoring of the bird boxes	Once a year between April to August
Whole site	Review progress towards achieving actions.	Annually
All habitats	Investigate opportunity for species surveys for reptiles, amphibians, birds, bats, other mammals and invertebrates.	Ongoing
Whole site	Update habitat map	Every 5 years
Whole site	Intermediate review of progress towards meeting targets	2028
Whole site	Review management plan and produce plan for the next 10 years.	2033

9 Biodiversity net gain assessment

Table 18 details the total biodiversity gains that could be generated as a result of implementing this management plan (further details of how this was calculated can be found in Appendix 3 and in the BNG Spreadsheet provided as a separate document).

Table 18: Biodiversity gains

Headline results		Park Downs[5]
Onsite baseline	Habitat units	487.85
Onsite post-intervention	Habitat units	511.48
Total unit change	Habitat units	**23.63**
Total % change	Habitat units	**4.84%**

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> 10 % gain	0 – 9% gain	< 0% gain

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