Forestry Commission England

WEST ENGLAND FOREST DISTRICT

PROTECTING AND EXPANDING
ENGLANDS FORESTS AND WOODLANDS
AND INCREASING THEIR VALUE TO SOCIETY
AND THE ENVIRONMENT.

FOREST PLAN

Rowberrow Warren

Bristol Beat

Plan period 2014-2024

FSC www.fsc.org FSC® C011771 The mark of responsible forestry

Forestry Commission woodlands have been certified in accordance with the rules of the Forest Stewardship Council.

PEFC PEFC/16-40-1001 Promoting Sustainable Forest Management www.pefc.org

FCE File Ref: OP10/52 (old 83)

FS File Ref: GL/1/5/2.66

Rowberrow Warren
Francis Raymond-Barker
Planning Forester (North)
July 2014

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A pictorial vision for the future of Rowberrow Warren

From this…

Little diversity…

To this…

To a rich mix of structure and diversity

And from this….

Pure mature conifer with little diversity…

To…

Left fallow 4-5 years following felling…

This.

To a diverse range of conifer with much better integrated open habitat.

1:60,000

Introduction

Rowberrow Warren is a leased wood and lies in the West of the Mendip Hills in a designated Area of Outstanding Natural Beauty. Rowberrow is a little over 2 miles north of Cheddar and 6 1/2 miles as the crow flies south-east from J21 of the M5 for Weston-Super-Mare.

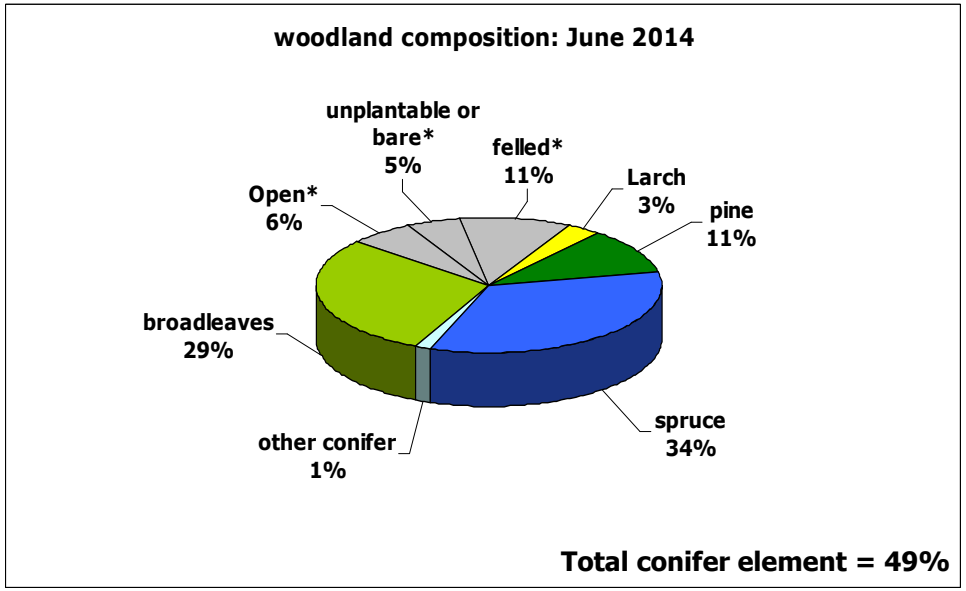
Rowberrow is not an ancient woodland site and comprises of 220Ha of mixed woodland, originally planted in the 1940s-50s on previously open ground consisting of acid grassland and heath. The site enjoys freely draining mineral soil averaging 800mm of rainfall per year. Parts of the wood are elevated and exposed with the highest point being 290m giving rise to its prominent and highly visible position within the landscape and as a result, the wood has a high wind blow risk on the higher slopes with poor form resulting from the wind especially in Beech stands, where squirrel damage is also apparent.

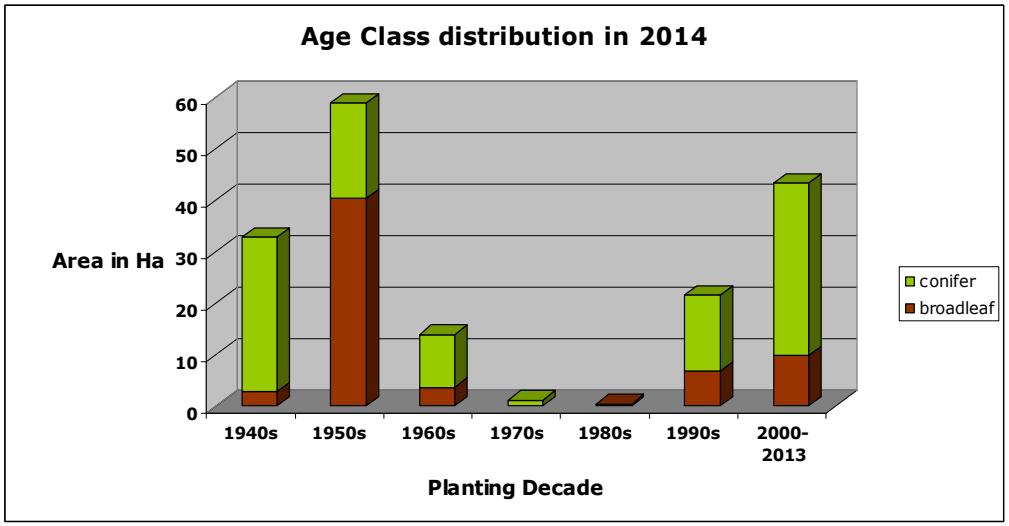
The 2003-2013 plan period saw the process of restructuring Rowberrow begin to transform the wood from one that used to be very dense with very little open space to one with a much higher proportion of well integrated open space that has bought in a higher degree of ecological benefit for species such as the Long-eared owl and ground nesting birds such as Nightjar, as well as butterflies moths and reptiles; whilst maintaining a healthy level of timber productivity.

Plan Summary

The main threads for the 2014-2024 plan are to:

- Conclude reordering broadleaves and conifers to better suited sites through continued sustainable timber production - process begun in the 2003-2013 plan.
- Improve the quality, quantity & sustainability of integrated open space, especially along ride edges.
- Begin improving future resilience and diversity by starting to plant a wider variety of tree species.





Woodland Structure

Previous structure

In the 1990s Rowberrow had very little open space being fairly typical of any conifer plantation planted in the 40s in this respect. By 2003 the woodland was comprised predominantly of Spruce, Pine and Larch species totalling just over 70% with the broadleaf component accounting for only 24% consisting mainly of Beech and Ash. Open space was scarce and sat at only 7%.

The 2003-2013 plan identified the need to maintain a higher degree of open space in order to:

1. Compliment surrounding designated sites.
2. Be of benefit to important local priority species.
3. Improve landscape integrity.

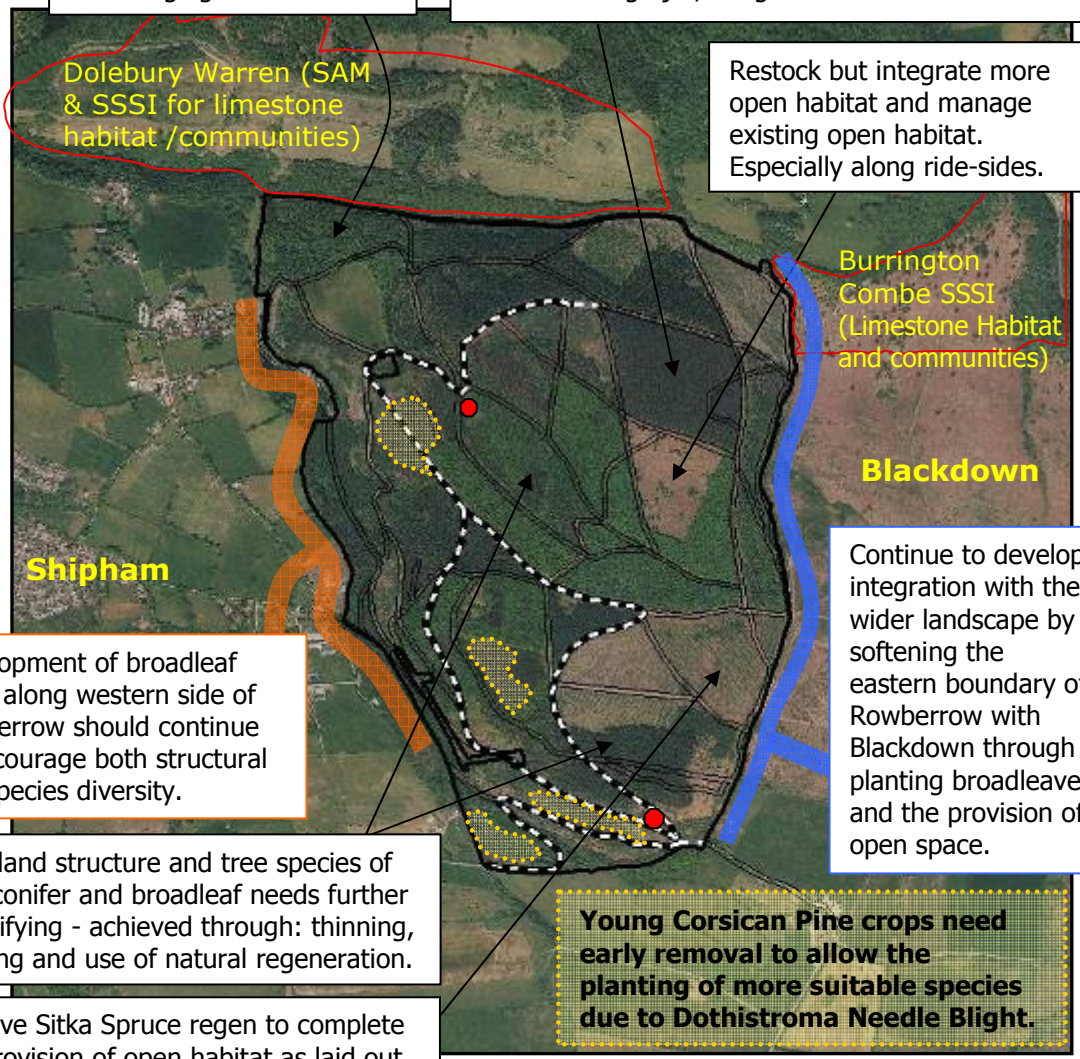
This was achieved through clearfelling conifer and delaying restocking for 4 years. This has led to a 4% increase in open space; an increase that jumps to 15% if one includes felled areas awaiting restock.

Future structure

Future continuity for the provision of available open space habitat to sustain objectives 1 and 2 (above) through felling is declining rapidly as the area of mature conifer available for felling is now reaching a finite point. The 2014-2024 plan looks to stabilise this situation by:

- Reducing the size of remaining clear falls that will extend the continuity of open space and habitat by around 10 years.
- Creating open habitat alongside rides and tracks through thinning and careful restocking.
- Better managing existing open space along rides and those integral to restock areas.

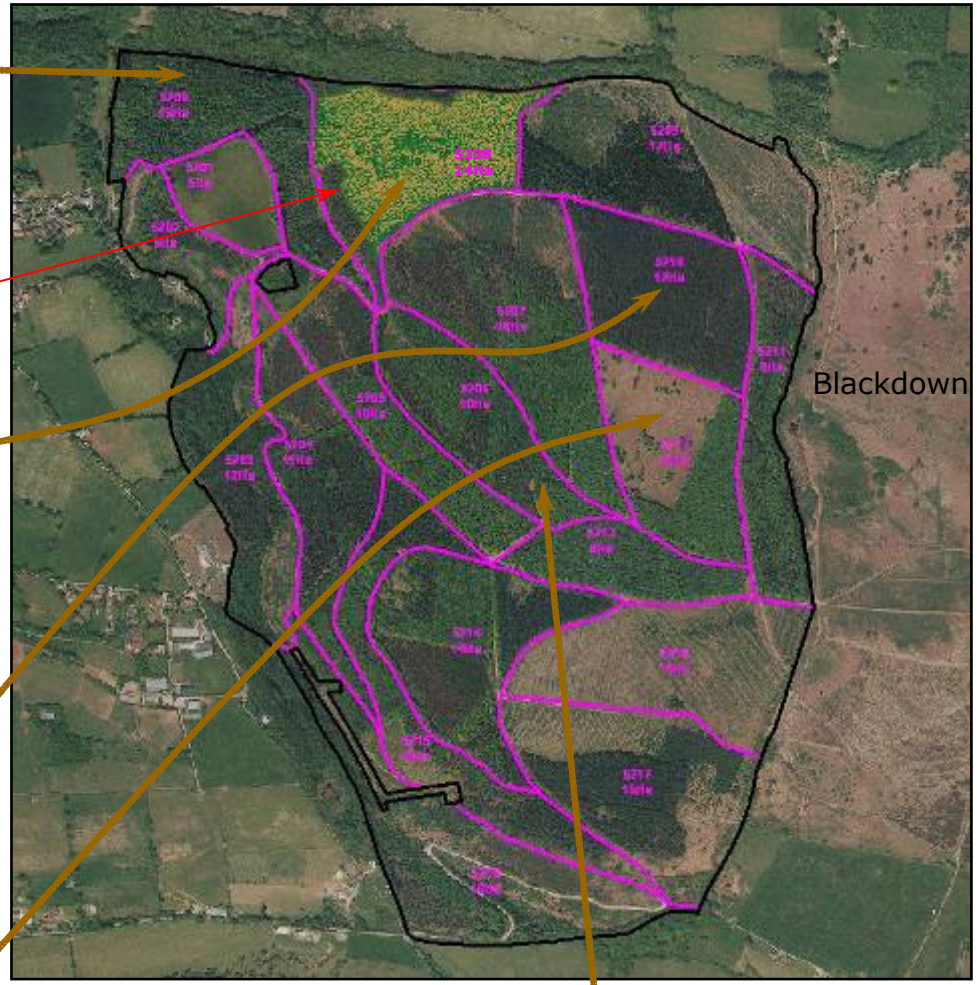
The next 10 years should see a 6% increase in broadleaf cover, and 6% reduction in conifer cover. Open space* will rise by 3.9Ha, but percentage will remain the same at 22%.
(*see pie charts on pages 5 & 13)



Management Objectives

- Management of the woodland will be to the standards required to maintain FSC and PEFC accreditation.
- Continued production of sustainable and marketable woodland products that also allows the delivery of a range of other public benefits and provides opportunities for economic growth.
- To undertake management that protects and enhances woodland and open habitats facilitating their resilience and adaptation to projected climate change and threat of disease.
- To conserve both cultural and heritage features within the plan area notably Rowberrow Camp SAM and Rowberrow Cavern SAM (shown on map as ●) according to management plans agreed with English Heritage.
- To undertake management that enhances the integration of Rowberrow into the surrounding landscape.
- To provide public access on designated Public Rights of Way only due to a leasehold tenure.

● **SAMs** - Rowberrow Camp and Cavern. These areas will be maintained in accordance with management plan prescriptions laid out in the SAM plans as agreed with English Heritage.
Further information can be found in Appendix 2.



Enhancing Diversity

1. Good structural diversity. The overstorey is Beech Ash and Oak with an understorey of Beech and Ash, some Hazel, Willow and Elm.

Action: Monitor development of regeneration and the health of Ash and Elm. This is the kind of structure that would be good to see develop elsewhere within Rowberrow, see photo 5.

2. An example of a delayed restock area, due for restocking in 2017. A chance to add diversity.

Action: Future plantings will be varied and diverse to include Scots Pine and alternative species such as Oriental Spruce, some Douglas Fir, Red Cedar & Redwood. Broadleaf planting should be Oak and include a high proportion of minor species such as Hornbeam, Whitebeam, Cherry, Service, Rowan, and Hazel. Incorporate open space along rides.

3. One of the last few mature stands of conifer left that provides wildlife with shelter and food during winter months, but also open habitat when felled.

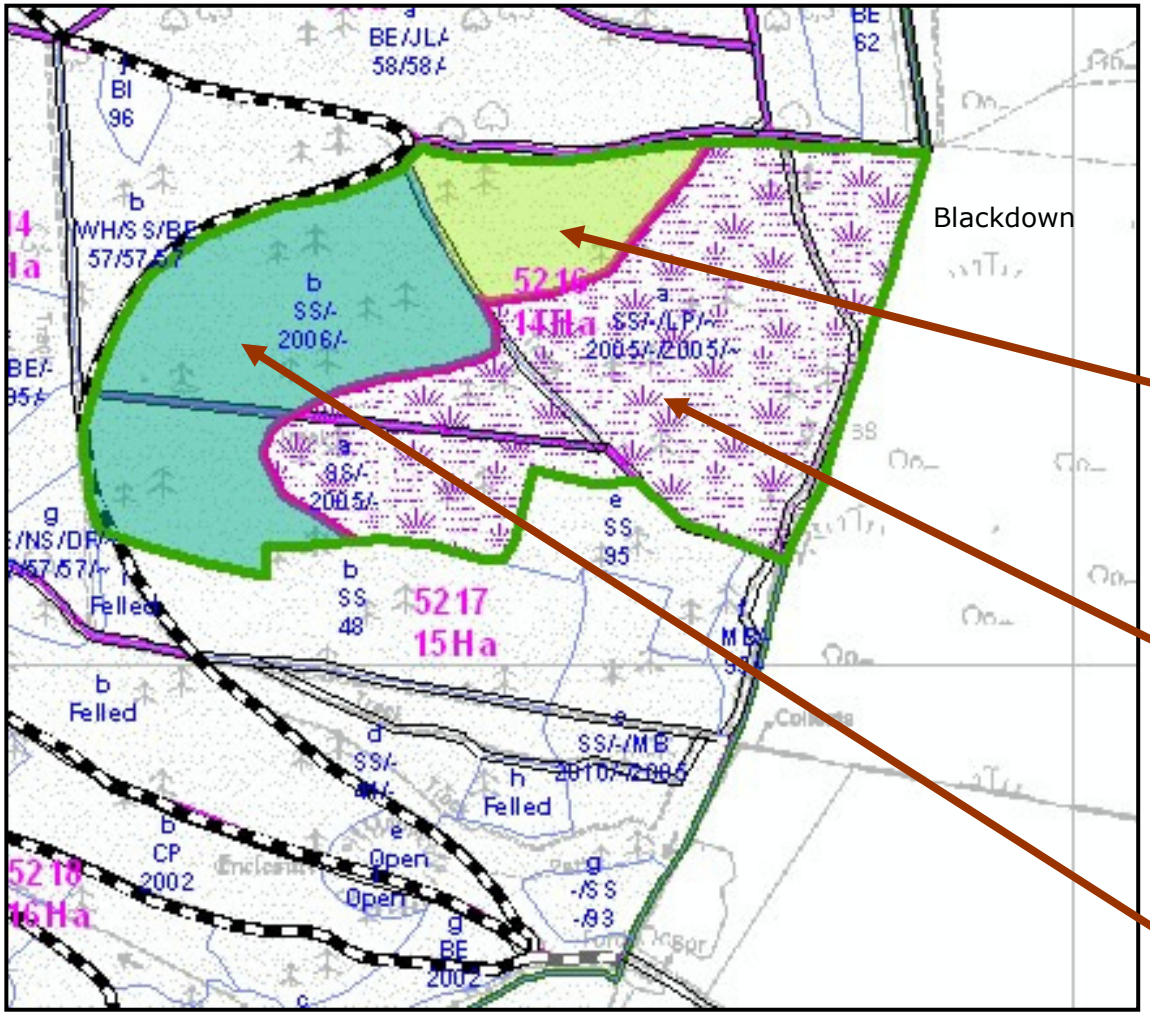
Action: Felling coupes for remaining conifer areas will be reduced in size increasing continuity of available open space into the future, benefiting Nightjar, Long-eared owls, butterflies and other wildlife for a further 10 years more than in the previous plan.

4. Delayed restock area.

Action: Replant with Spruce species and some native broadleaf and incorporate more open space.

5. Typical beech plantation within Rowberrow.

Action: As gaps develop through thinning, under-plant with a wide variety of native species in order to develop structure and future resilience.



Existing open habitat

In the old Forest Plan the area outlined in green was one coupe and is now three, totalling between 17.5 and 18Ha.
Management following felling was as per FP:

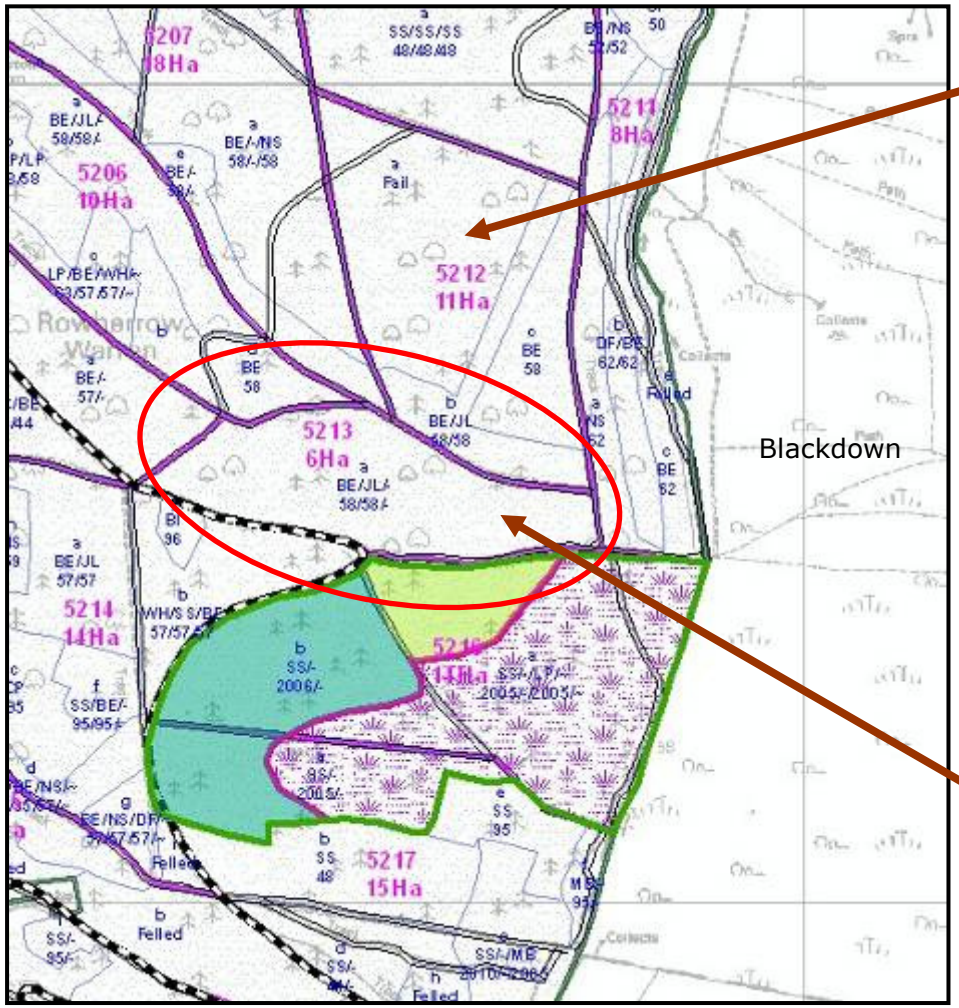
- 10Ha were kept as open heathland habitat.
- 6Ha were replanted with SS (5216b)
- Remaining 1.5–2.0Ha kept as open broadleaf woodland.

Coupe 52361 This area is a mix of open space and trees. Predominantly conifer, with a very small percentage of broadleaf.
Action:
Remove conifer over next 10 years.

Coupe 52182 This area is meant to be open space but has filled with a mosaic of quite dense SS nat-regen and heathland vegetation, including heather, young gorse, a variety of grasses and wild flowers.
Action:
Staggered group removal of conifer over next 20 years, with the majority of the area then maintained as open space as per 2003-2013 plan.

Coupe 52049 The dark green area is as it should be: SS of around 8 years of age, with elements of open space along the northern edge and eastern boundary along the ride.
Action:
Manage as per felling plan for 2014-2024.

Existing open habitat (continued)



Compartment 5212a This is an area restocked with SS that failed due to grazing by ponies from Blackdown.

It is currently open with rough vegetation of grasses, bracken and bramble with a scattering of SS saplings and small groups/ individuals of p58 Beech Sitka natural regen.

It is intended to restock this area a second time in winter 2014, to include other spruces SP, DF and some native broadleaf too.

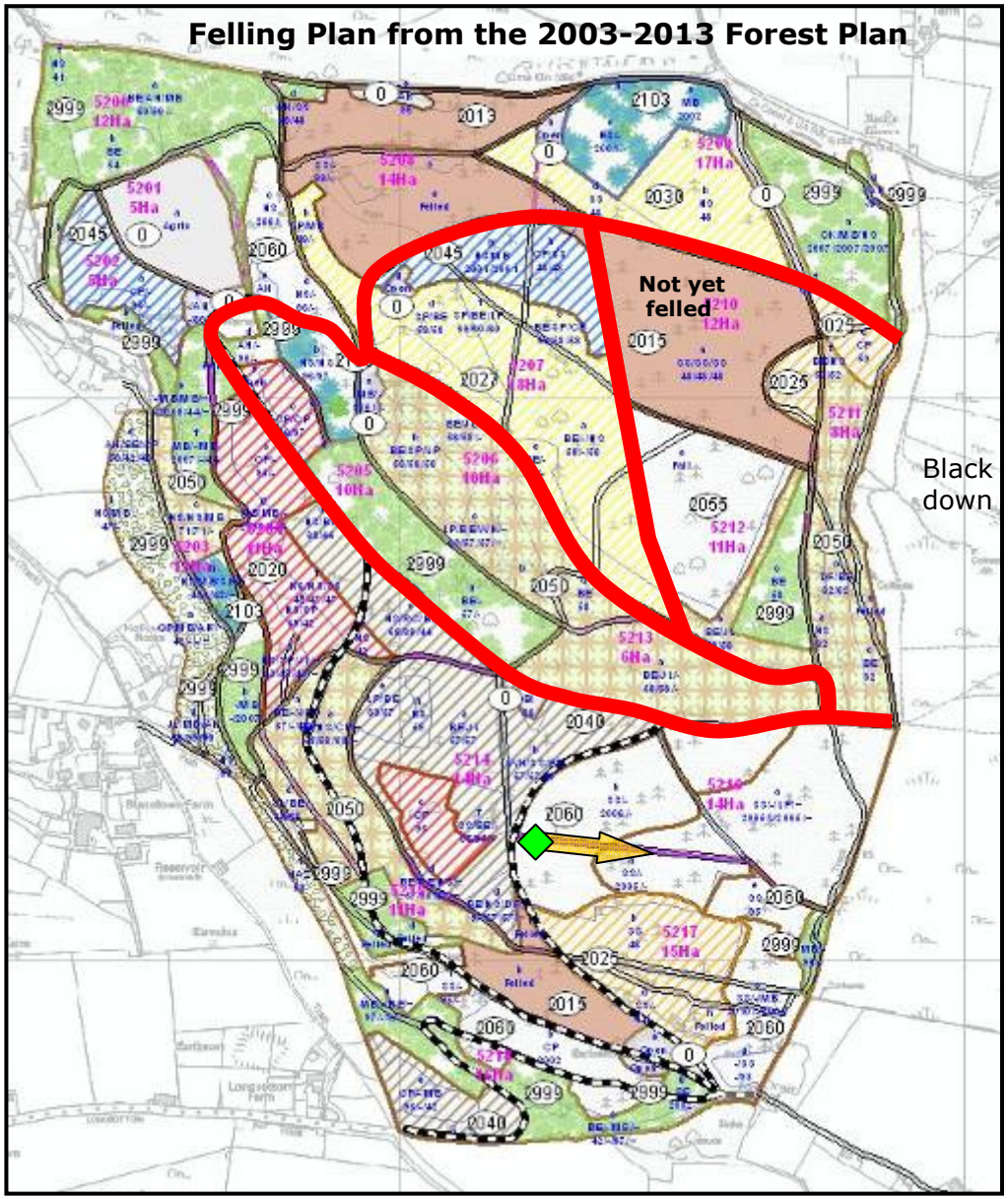
Following a meeting with H&OT on 24th June 2014, a more open ride structure should be incorporated along the northern and eastern boundaries and also include:

- Some elements of open space within the main planting area.
- Main planting area
- Some minor native broadleaf species that would include: Whitebeam, Service, Rowan, Hornbeam, possibly Holly and Hawthorn.

This area circled in red should have the conifer removed, and the remaining broadleaves thinned over 2 or 3 interventions so that stocking is reduced by around 50 % allowing for under-planting of minor native broadleaf species in small groups, achieving a future composition comprising of mature BE, younger broadleaves (esp. berry bearing spp such as Rowan) and open space.

This will create better links with the open habitat to the south and improve the provision of vital sources of food for wildlife during winter months.

Stabilising availability of open habitat into the future



Restructuring over the last 10-20 years means only a finite amount of clearfelling is left in Rowberrow, jeopardising the future potential to provide Habitat suitable for Long-eared Owl, Nightjar and the like.

This potential is further jeopardised if clearfelling continues at the pace and scale at which the original plan lays out, shown on the map opposite.

Slowing down the pace of clearfelling and resizing some of the coupes so they are smaller, will extend the time period that suitable habitat will be available by around 10 years.

During restocking rides should continue to be restructured by building in generous allowances of open space; whilst thinning will concentrate on opening up rides and tracks highlighted in red to create this space and provide connectivity.

This provision of integrated open habitat is important since the woodland is becoming younger and future clearfelling moves more beyond the event horizon, suitable habitat for Nightjar, Long-eared owl, butterflies and reptiles would otherwise become limited, threatening population stability.

NOTE: Continuity of success in providing integrated open habitat into the future relies on managing these areas as such, which the Hawk & Owl trust can advise on.

Left: A good example of integrating open habitat that would increase ecological gain enormously if used on other rides shown in red, on the map to far left.

Alternative Species

Oriental Spruce – Picea orientalis
Adapted to warm summers, cold winters and is cold hardy and moderately tolerant of exposure; very late flushing species and so can be used on sites prone to late spring frosts. Tolerates dry conditions better than Norway or Sitka Spruce. Growth rates are similar to Norway Spruce and best suited to slightly dry to moist soil of poor to rich nutrient status.

Giant Redwood - *Sequoiadendron giganteum*
Can produce rapid early growth and high volumes on suitable sites. Tolerates dry summers, appearing somewhat more cold, drought and exposure tolerant than Coast Redwood. Best growth on poor to medium soils with slightly dry to fresh soil moisture such as acid sandy loams. Not suited to heavier gleys, peats or poor dry soils. Plantation stands can produce timber of similar quality to coast redwood.

Western Red Cedar – *Thuja plicata*
Shade tolerant, cold hardy, moderately frost tolerant species. Good vigour and volume production, early growth can be slow. Best grown on more sheltered sites and is moderately drought tolerant. Annual rainfall of >800 mm, prefers medium to rich soils with fresh to moist soil moisture. Not suited to poor, dry soils but will grow on gleys. Can be grown in mix with a range of conifer and broadleaf species.

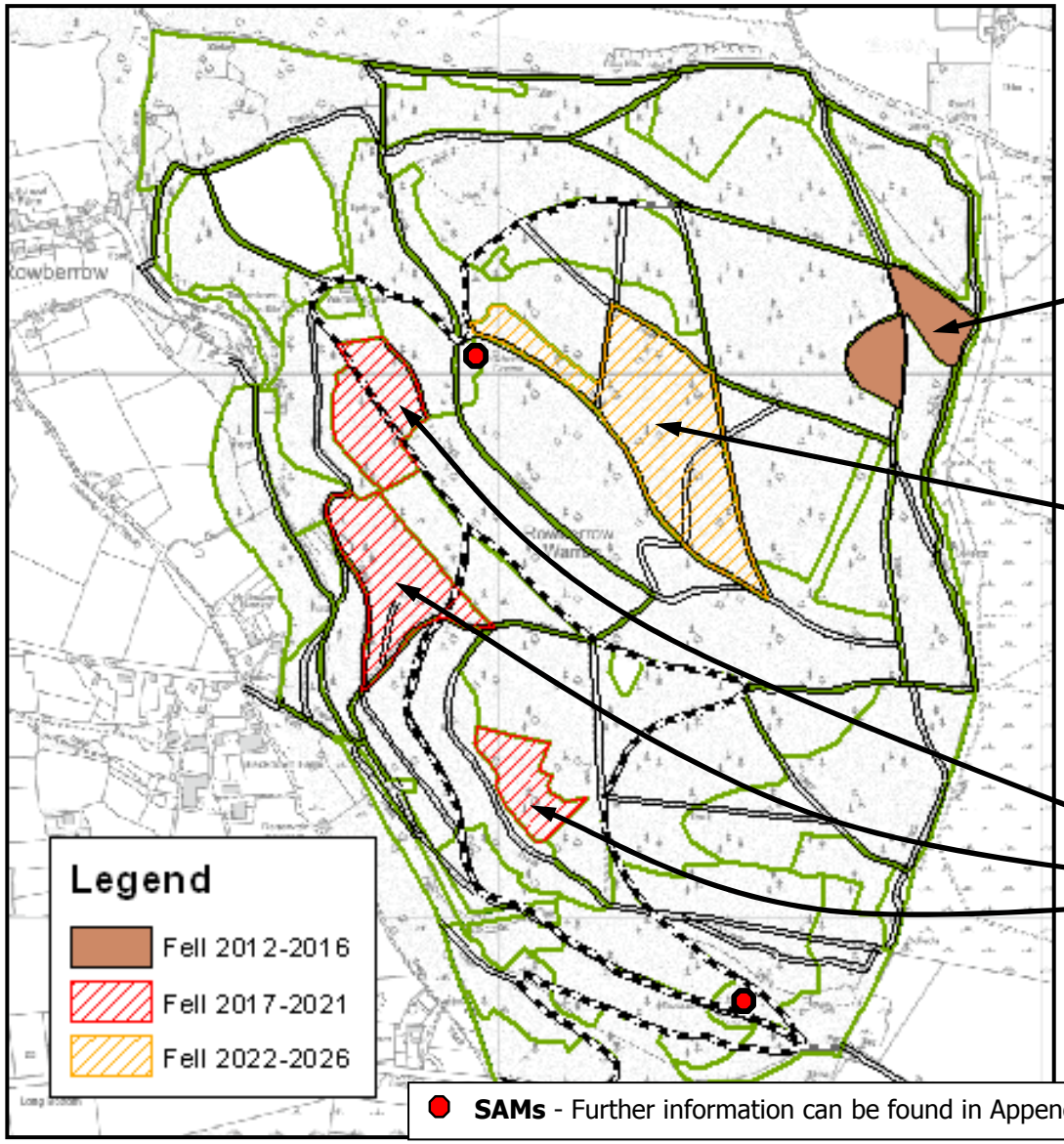
Wild Service - *Sorbus torminalis*
Light demanding, early successional species, generally found as isolated individuals or in groups in broadleaved woodland; large diameter trees are highly valued for their timber. Adapted to warm climates with > 600 mm rainfall and best growth obtained on sites of medium to very rich nutrient regime and fresh moisture status. Not suited to wet soils or those of poor nutrient status. Can tolerate drier conditions more than other broadleaves.

Silviculture

The Woodland will continue to be managed as a productive wood, producing material for a variety of markets.

The reordering of broadleaves and conifers to more suitable sites will continue as laid out in the 2003-2013 plan although a more diverse future woodland composition will be key:

- Establishment of **broadleaf** woodland in compartments 5205, 5206, 5211 and 5213 will be achieved through removal of remaining conifer by thinning. This will leave a predominance of Beech that will be thinned to encourage crown development and provide a more open structure that can be either under or group planted providing a good diversity of native broadleaf. (Rowan, Hornbeam, Service, Cherry, Oak and perhaps walnut in more sheltered valleys.)
- **Conifer** planting should encourage use of species that will be better suited to a warming climate. It is expected that by 2080 the site could be too dry for both Sitka and Norway Spruce. Climate modelling suggests that species such as Oriental Spruce, Giant Redwood, Western Red Cedar, Douglas Fir would be best suited. When thinning conifer areas, if that area is due to be replanted with conifer, any RC or DF should be retained.
- Although larch is suitable, due to the **disease** *Phytophthora ramorum* none will be planted, and *Dothistroma needle blight* means no Corsican pine planting. Little to no Ash will be planted in the short term due to the threat of *Chalara Fraxinea*.
- **Clearfell areas** will be left for 4 to 5 years providing suitable habitat for nightjar and Long eared owls.
- **Regeneration** of existing clearfells destined for broadleaf cover that regenerate naturally with broadleaf, will be assessed and species diversity increased if necessary by planting.



Rowberrow Warren
Felling Plan 2014-2024

Felling Coupe 52019
Area 2.6Ha

Restock Coupe 52019a
Mixed Broadleaves
- Ensure a good mix of native broadleaves is planted to enhance diversity and resilience.

Felling Coupe 52662
Area 9Ha

Restock Coupe 52662a

Oriental Spruce	40%
Norway Spruce	40%
Douglas Fir	20%

Felling Coupe 52029
Area 9.7Ha

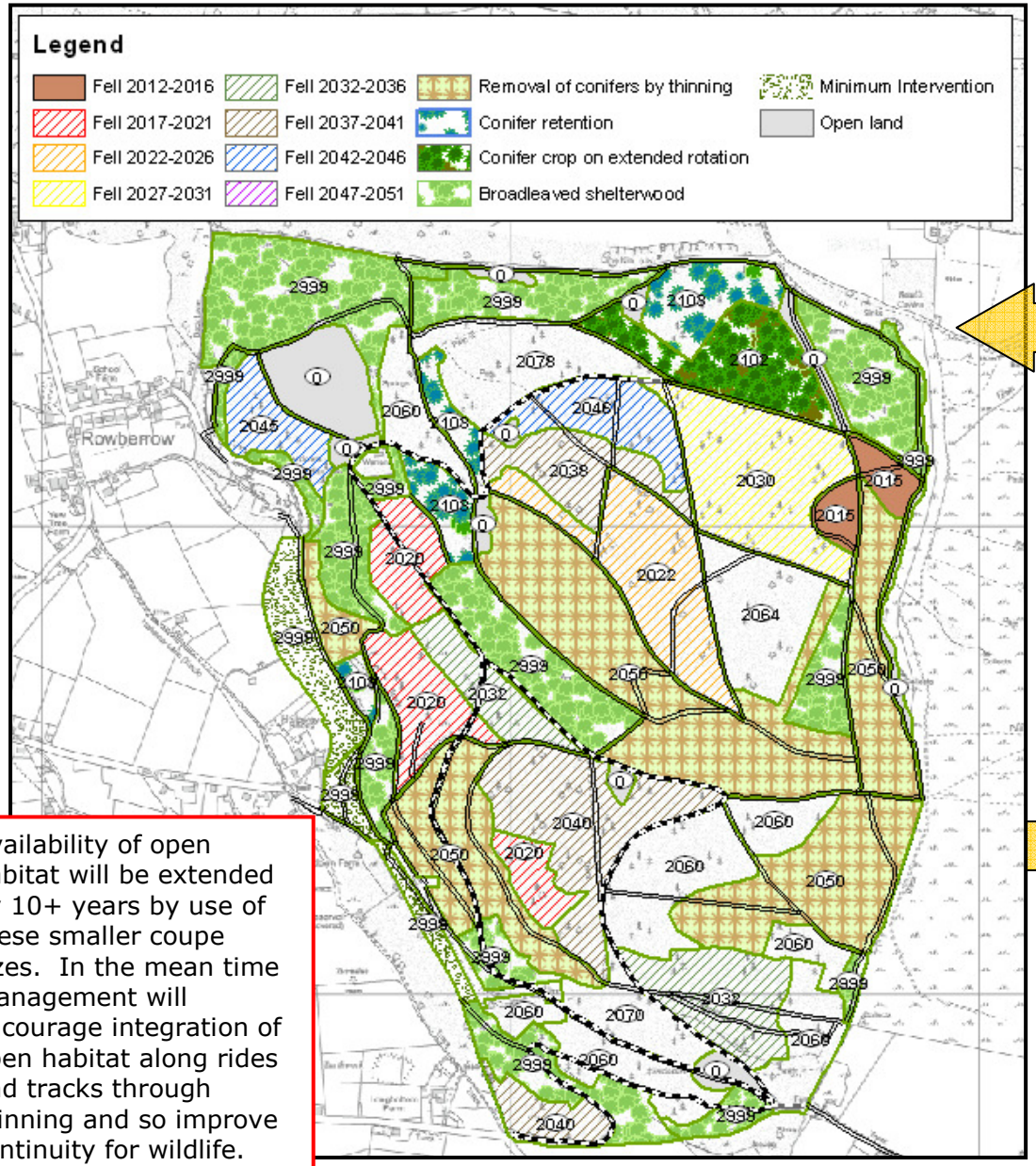
Restock Coupe 52029a

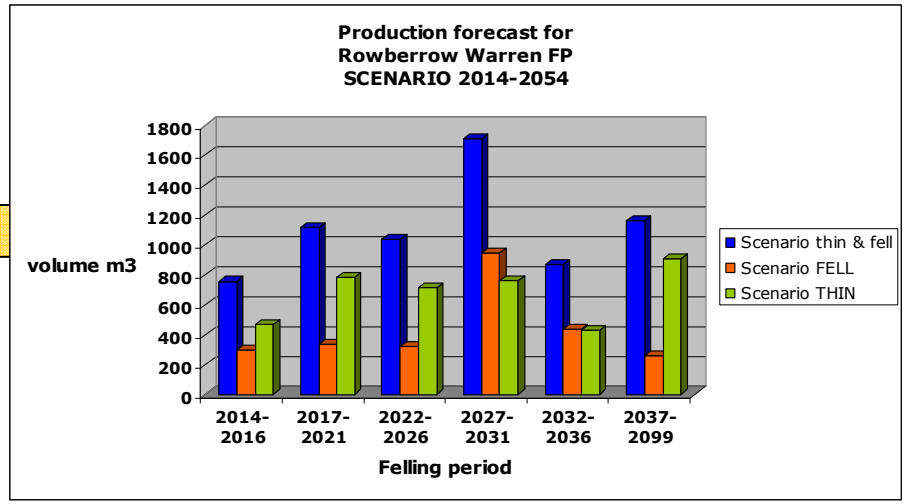
Oriental Spruce	40%
Western Red Cedar	30%
Douglas fir	20%
Norway Spruce	10%

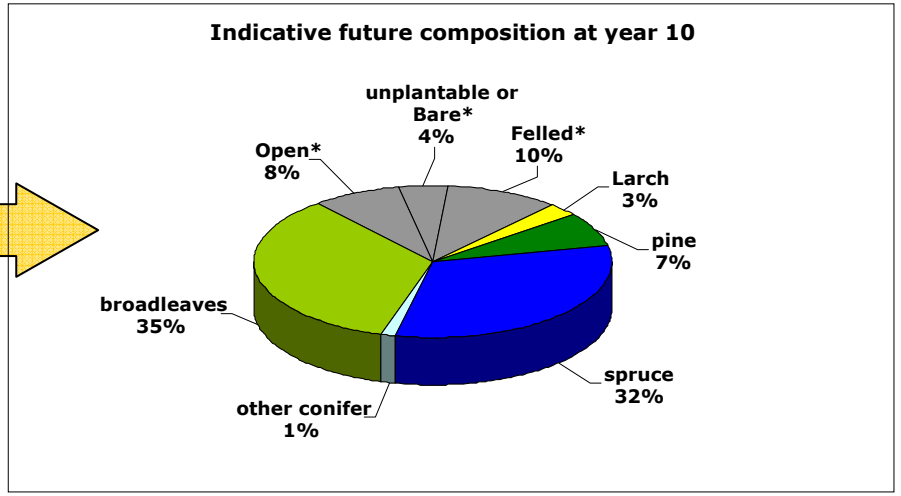
Forestry Commission England

Rowberrow Warren
Forest Plan for 2014-2024

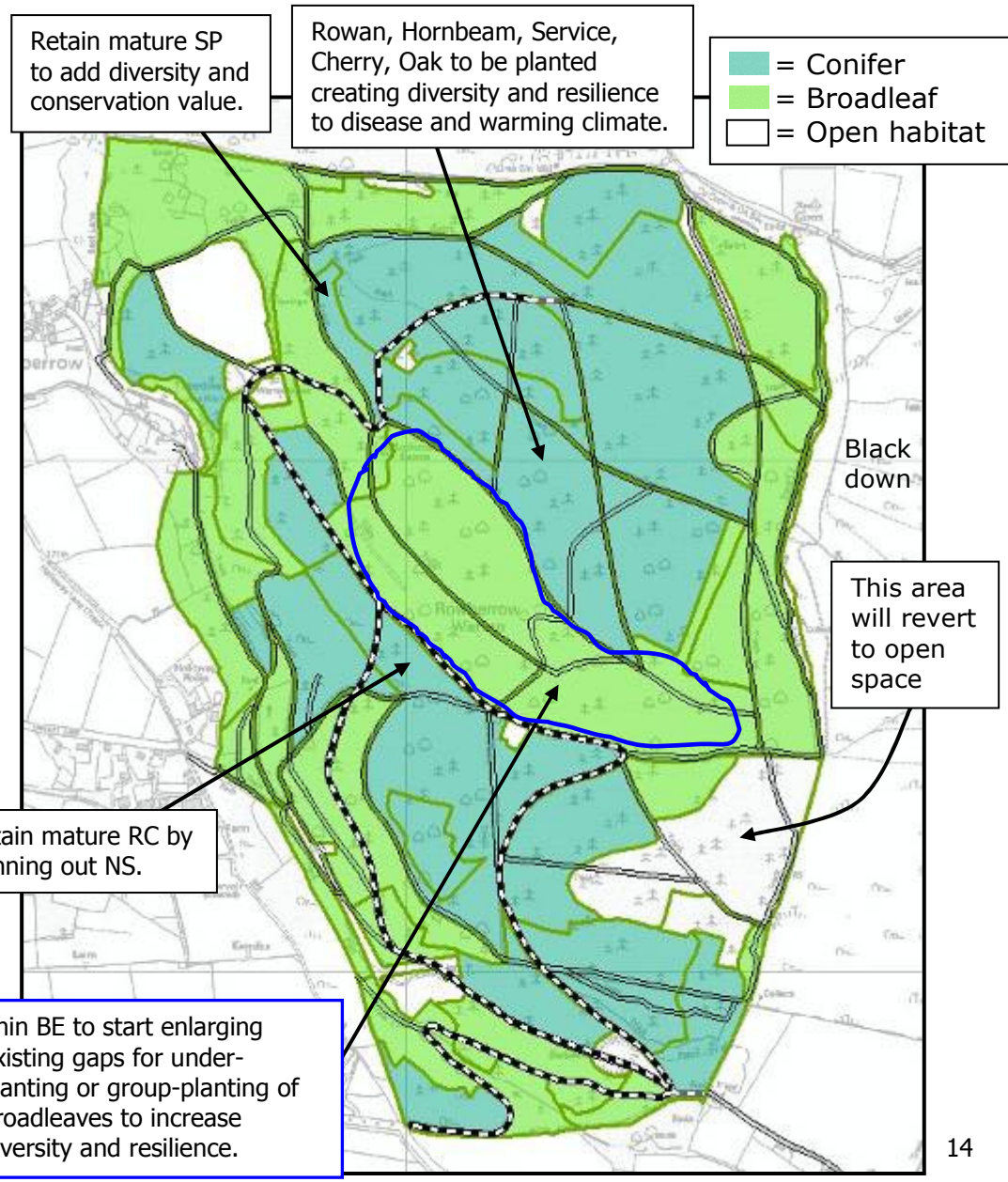
Rowberrow Warren
Felling Plan 2014-2054







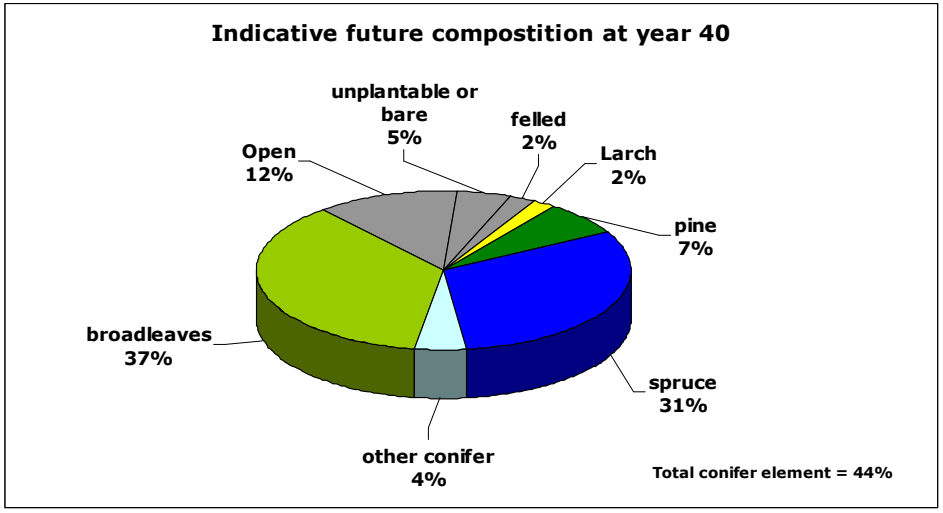
Availability of open habitat will be extended by 10+ years by use of these smaller coupe sizes. In the mean time management will encourage integration of open habitat along rides and tracks through thinning and so improve continuity for wildlife.



Indicative future woodland composition

The future woodland composition will not change in terms of the ratio of broadleaf vs. conifer as laid out in the 2003-2013 Forest Plan shown opposite, however what will change is the diversity of species being planted.

With the future challenge of managing woodlands to ensure resilience to climate change and pests / disease, a site based approach to species choice will see a more diverse species composition developing into the future.



Meeting Objectives

Management Objectives	Meeting Objectives	Monitoring
❖ Management of the woodland will be to the standards required to maintain FSC and PEFC accreditation.	Management of the district's woodlands is undertaken to the standards required under UKWAS as endorsed by the Forest Stewardship Council and to maintain PEFC accreditation.	Compliance to these standards is monitored through various national and district policies, guidance, field surveys (including NFI), use of GIS and other IT software, internal support audits and external audits carried out by SGS (an independent auditing company) Monitoring can also be achieved through: site planning, contract supervision and the Forest Plan review process.
❖ Continued production of sustainable and marketable woodland products that also allows the delivery of a range of other public benefits and provides opportunities for substituting use of fossil fuels and other energy intensive materials with the use of wood products.	Management of the district's woodlands is undertaken to the standards required under UKWAS as endorsed and certified by the Forest Stewardship Council and to maintain PEFC accreditation. As part of the Forest District's business plan and the organisation's customers' charter, the forest district is committed to financial and sustainable timber marketing targets. Growing quality timber in so far as this is consistent with other objectives.	Sustainable production will be monitored as part of the forest district's marketing plan, five year production forecast and at the Forest Plan (FP) five-year review. This process is audited as part of the FSC forest certification process. Annual pre-thinning survey. Production forecast comparison with actual output to assess accuracy of forecast. Annual Customer Liaison meetings.
❖ To undertake management that protects and enhances woodland and open habitats facilitating their resilience and adaptation to projected climate change and threat of disease	Diversify the woodland so as to develop a better variety of species, age structures, habitat types and open spaces. Implementation of the plan will also see a better integration within the wider landscape and linking of habitat types	The sustainable programme of thinning and proposed felling together with a varied delayed restock program will continue to diversify stand and age structure, enhance the landscape and benefit a wide range of species. Results can be monitored during plan reviews.

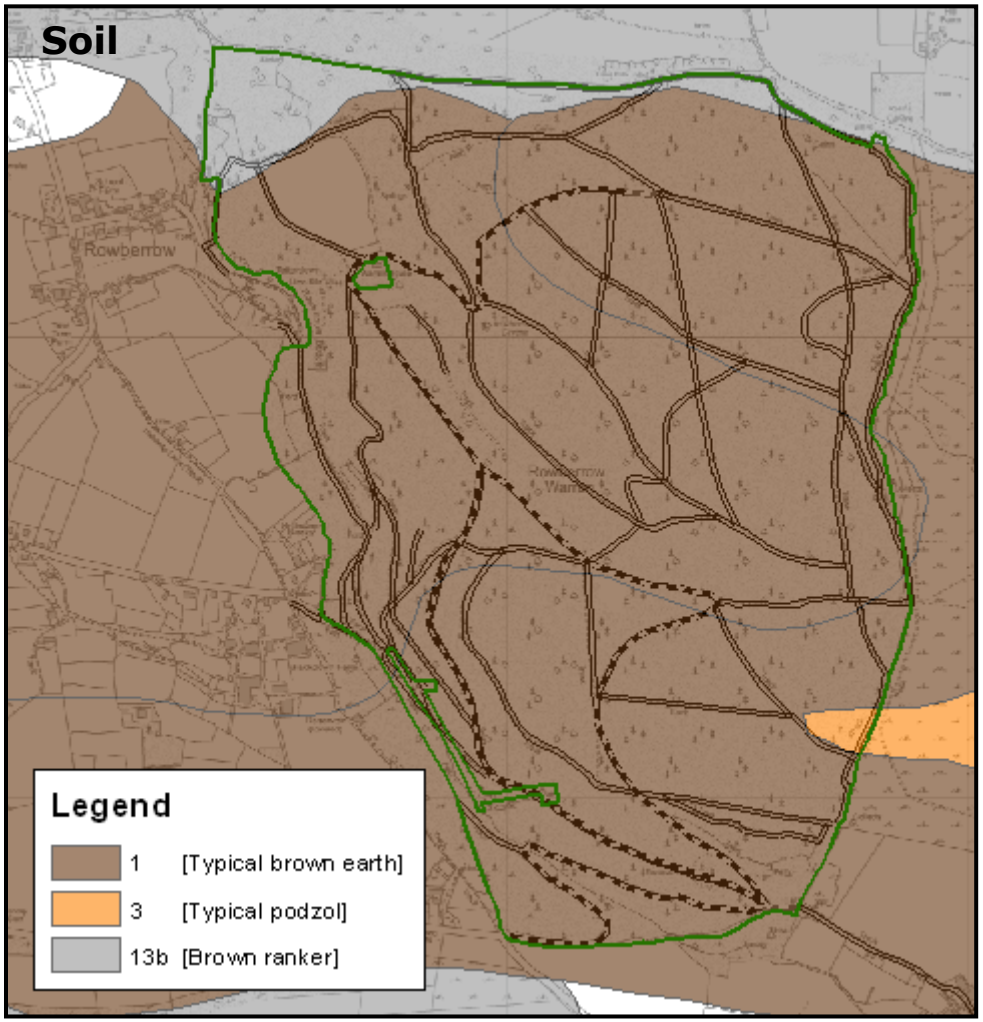
		Operational site planning of harvesting and restocking operations should account for landscape enhancements where appropriate minimising the risk of adverse impact resulting from forest operations whilst at the same time highlighting opportunities where conservation benefits can be delivered. Appropriate reinstatement works will be carried out once operations have been concluded.
❖ To conserve both cultural and heritage features within the plan area notably Rowberrow Camp SAM and Rowberrow Cavern SAM according to management plans agreed with English Heritage.	Management during the plan period will refer to the relevant management plans during the planning of operations and will if necessary consult with the county archaeologist and ensure consent from English Heritage has been granted prior to works being carried out.	Operational site planning of harvesting and restocking operations will help monitor the effect of management. A SAM plan diary will detail all work undertaken and its impact. Impact of harvesting work will also be recorded here.
❖ To undertake management that enhances the integration of Rowberrow into the surrounding landscape.	Implementation of proposals within this plan will soften and better integrate the woodland with the surrounding landscape	Through the Forest Plan review process.
❖ To provide public access on designated Public Rights of Way only due to a leasehold tenure.	Signage needs to be maintained regarding tenure of the site as Rowberrow is leasehold. Signage will stipulate that PROW only are to be used.	Beat team will monitor usage and ensure the up keep of the signage.

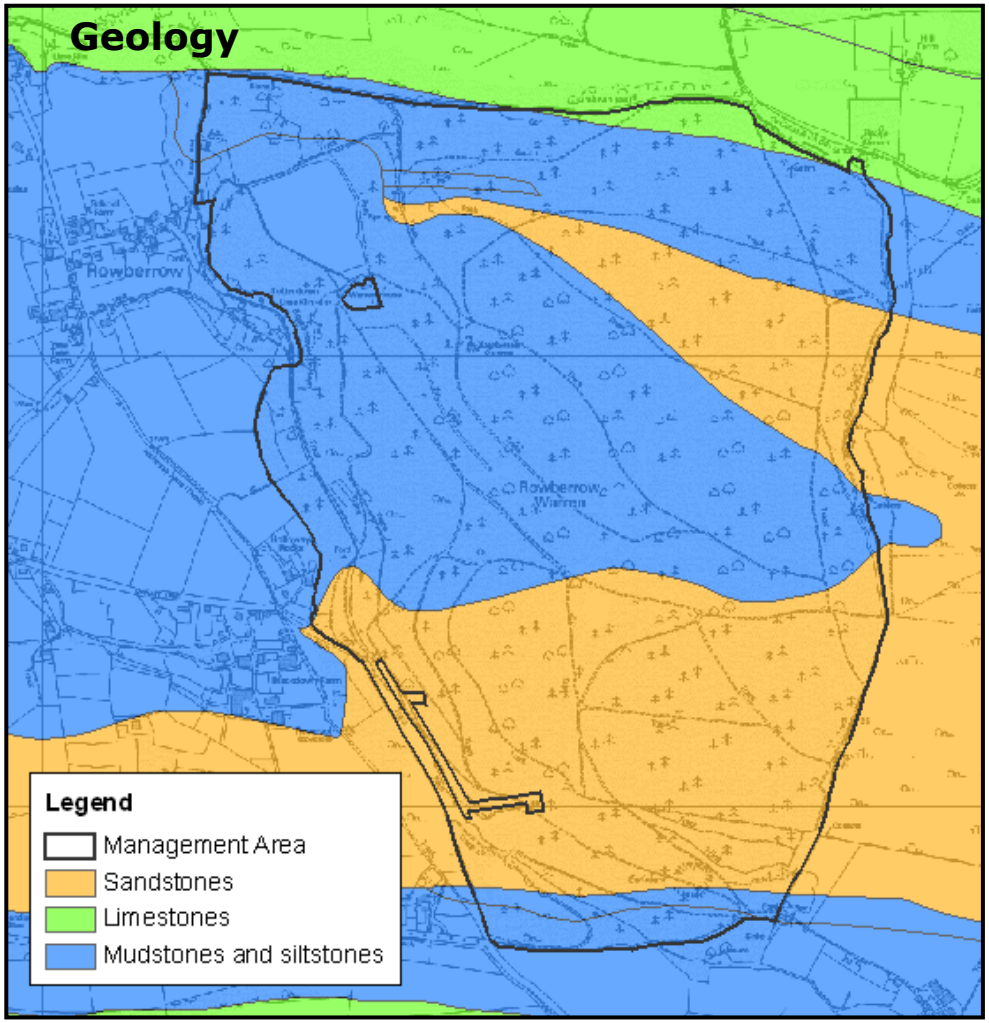
Option Testing

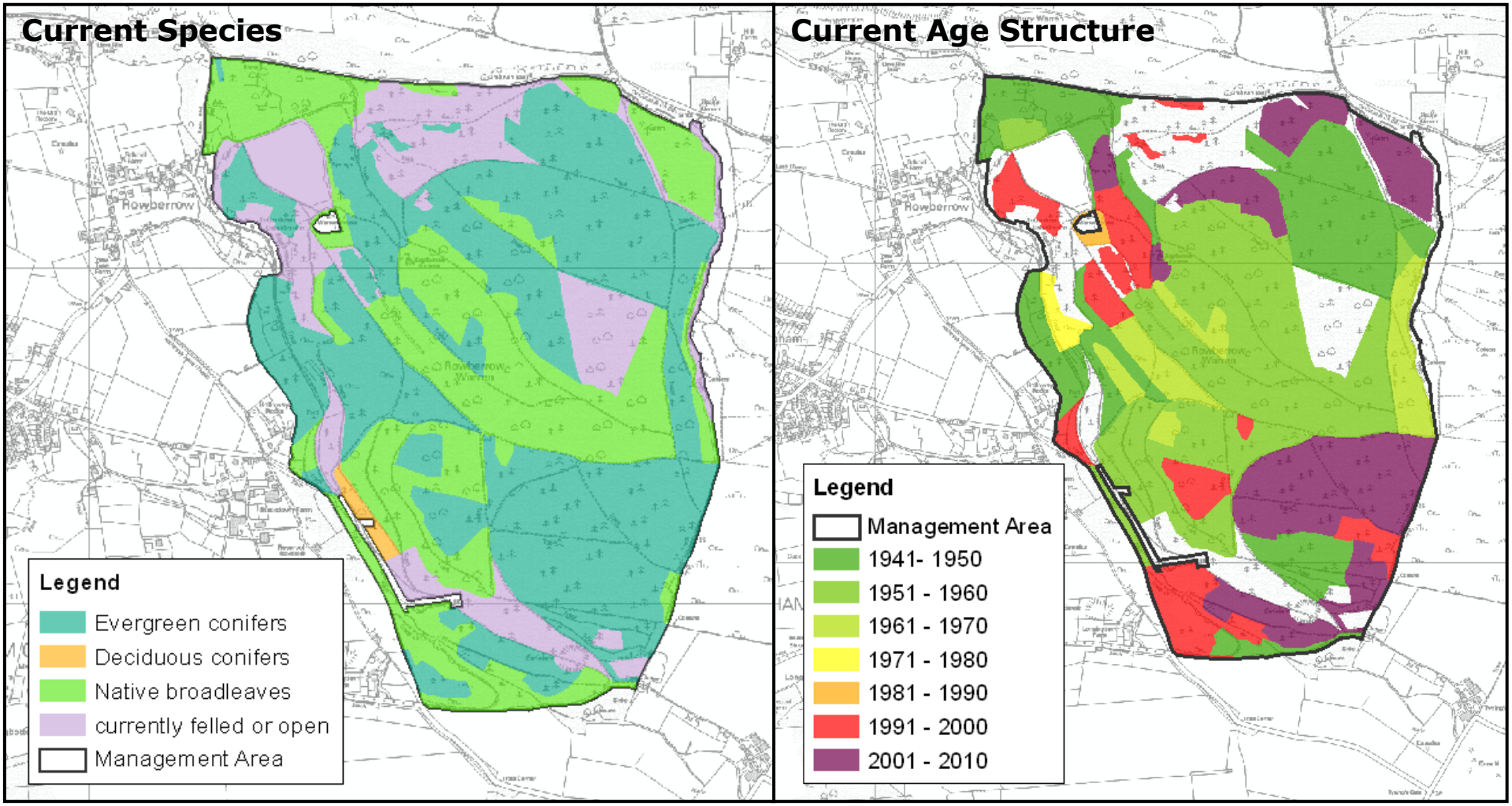
Objective	
Option 1 (Current FDP)	**Option 2 (Proposed FP)**
❖ **Management of the woodland will be to the standards required to maintain FSC and PEFC accreditation.**	
Felling coupes are primarily aimed at restructuring age class distribution at a landscape scale with delayed restocking that enhances and safeguards open habitat for numerous species. Restocking is with a limited number of species.	Rescale felling coupes to slow the pace of clearfelling. Resizing some of the coupes so they are smaller extends the availability of open habitat by around 10-15 years. Restocking will improve species diversity and integrate open space especially along ride-sides, giving more stability to available open space.
❖ **Continued production of sustainable and marketable woodland products that also allows the delivery of a range of other public benefits and provides opportunities for substituting use of fossil fuels and other energy intensive materials with the use of wood products.**	
Clearfelling and thinning are delivered in a sustainable manner and recognises the importance of open habitat by the creation of open habitat in the south-eastern quadrant of the Wood that adjoins Blackdown.	Rowberrow would continue to produce timber on a sustainable commercial scale and recognises mature conifer is at a finite point that has implications for management of open habitat. Future thinning work would be used to provide part of the solution to stabilising the future provision of open space habitat.
❖ **To undertake management that protects and enhances woodland and open habitats facilitating their resilience and adaptation to projected climate change and threat of disease.**	
The primary silvicultural method used in achieving the establishment of future crops is that of clearfelling coupled with delayed restocking, although choice of restock species does not take into account the impact of new diseases and climate change.	Clearfelling would continue to be a primary method of management, along with delayed restocking and some areas would begin using ATC techniques to add diversity and structure through thinning. E.g. for the enrichment of Beech crops. Those areas down for open space would be managed as such.

❖ **To conserve both cultural and heritage features within the plan area notably Rowberrow Camp SAM and Rowberrow Cavern SAM according to management plans agreed with English Heritage.**	
The plan recognises these features and refers to the relevant management plan for each site. Ops 1 assessments prior to work commencing identify work required and provide working solutions to such constraints.	Management will continue to operate around these sites in accordance with the relevant SAM plan. Ops 1 assessments will continue identify and provide working solutions to ensure cultural heritage is maintained.
❖ **To undertake management that enhances the integration of Rowberrow into the surrounding landscape.**	
Clearfelling was the prime key to achieving this objective.	Clearfelling and a more proactive approach to the management of open habitats will continue to soften and integrate Rowberrow with the surrounding landscape.
❖ **To provide public access on designated Public Rights of Way only due to a leasehold tenure.**	
Achieved through peer to peer policing that includes the Mendip Warden service.	Signage will need to be maintained advising forest users that as Rowberrow is leased, access is permitted on PRoW only.
Option 2 more fully addresses the current management priorities and is the preferred option	

Appendix 1: Physical maps






Current Species
Legend
Evergreen conifers
Deciduous conifers
Native broadleaves
currently felled or open
Management Area
Current Age Structure
Legend
Management Area
1941- 1950
1951 - 1960
1961 - 1970
1971 - 1980
1981 - 1990
1991 - 2000
2001 - 2010

Current AONB management plan

Conserving and enhancing natural beauty that includes flora, fauna, geological and physiographic features.

Recognising tranquility, dark skies and the relationships between people and place.

'Working landscapes' with all aspects of the landscape being of equal value.

Numerous ancient monuments echo evocative tales of ancient peoples with the interaction with the steeper slopes of flower rich grasslands and wooded combes offering diversity of habitat & wildlife.

The Forest Plan in relation to characteristics from the National Character area profile

- ✓ A chain of prominent limestone hills, cored by Devonian and Silurian rocks, extending inland from the coast and rising up sharply from the surrounding lowlands. An open limestone plateau with karst features including complex underground caves and river systems gives the area a unique character. Sandstone outcrops form the highest features. Dramatic gorges, cliffs and escarpment slopes surround the plateau. To the west the land breaks into individual hills.
- ✓ The plateau and hill tops are largely treeless, except for a few old ash pollards, wind-shaped shelterbelts and conifer plantations. The slopes and valleys surrounding the plateau have a wide range of woodlands forming an attractive mosaic with calcareous grassland and agriculture.
- ✓ Variable enclosure patterns with larger, rectangular 18th-century field patterns bounded by drystone walls on the plateau and smaller, irregular fields with hedgerows on the scarp slopes and eastern Mendips.
- ✓ The plateau has an outstanding assemblage of heritage assets from prehistoric features, such as burial mounds and hill forts, through to Second World War remains.

The Forest Plan will work to compliment the ANOB plan to...

- Conserve, enhance and sustainably manage the rural agricultural landscape and network of nationally and internationally important sites and semi-natural habitats to create a coherent and resilient ecological network, enabling ecosystems to adapt to climate change and for the benefits to biodiversity, water flow, water quality and protection of the aquifer, soil quality, regulating soil erosion, rural heritage and culture.

Landscape analysis - Current

The felling of coupe 52012 was completed in March 2012. A current fallow regime of 4 years means restocking in 2017.

Thinnings within the central area of Rowberrow will remove conifer elements and create gaps for planting moving species composition towards being a diverse mix of broadleaf.

The south west slopes of Rowberrow are beginning to be broken up through felling and a mixture of restocking and use of nat-regen.

Felling of this coupe will be moved to 2027-2031 to avoid adjacency issues, and help in stabilising future availability of open habitat.

Replant winter 2014 with mixed spruce and broadleaf, integrating open space too for long eared owl and night jar etc.

Coupe **52040** felled and filling in with Broadleaf regen.

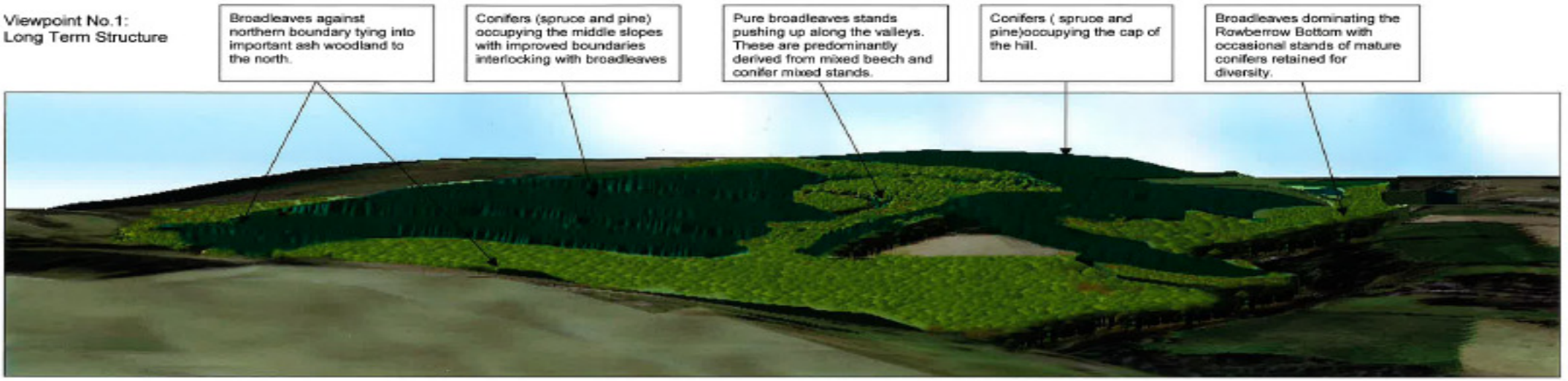
Part of coupe **52047** felled due to wind-blow and yet to be restocked.

Coupe **52041** felled and yet to be restocked.

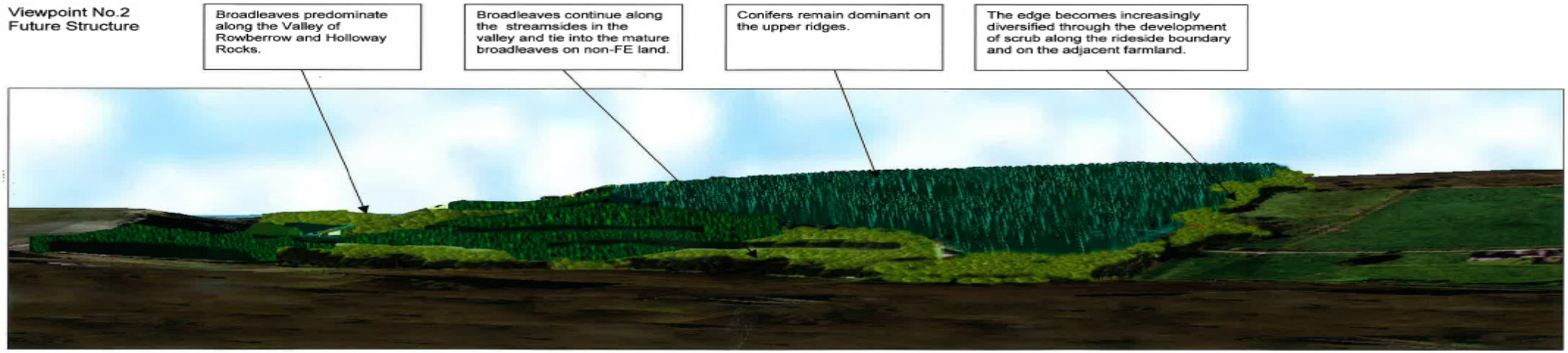
NOTE: areas shaded brown on map denote clearfelling in the last 10 year plan period with the purple mottled areas denoting restocking / regeneration.

Landscape analysis – Future Structure

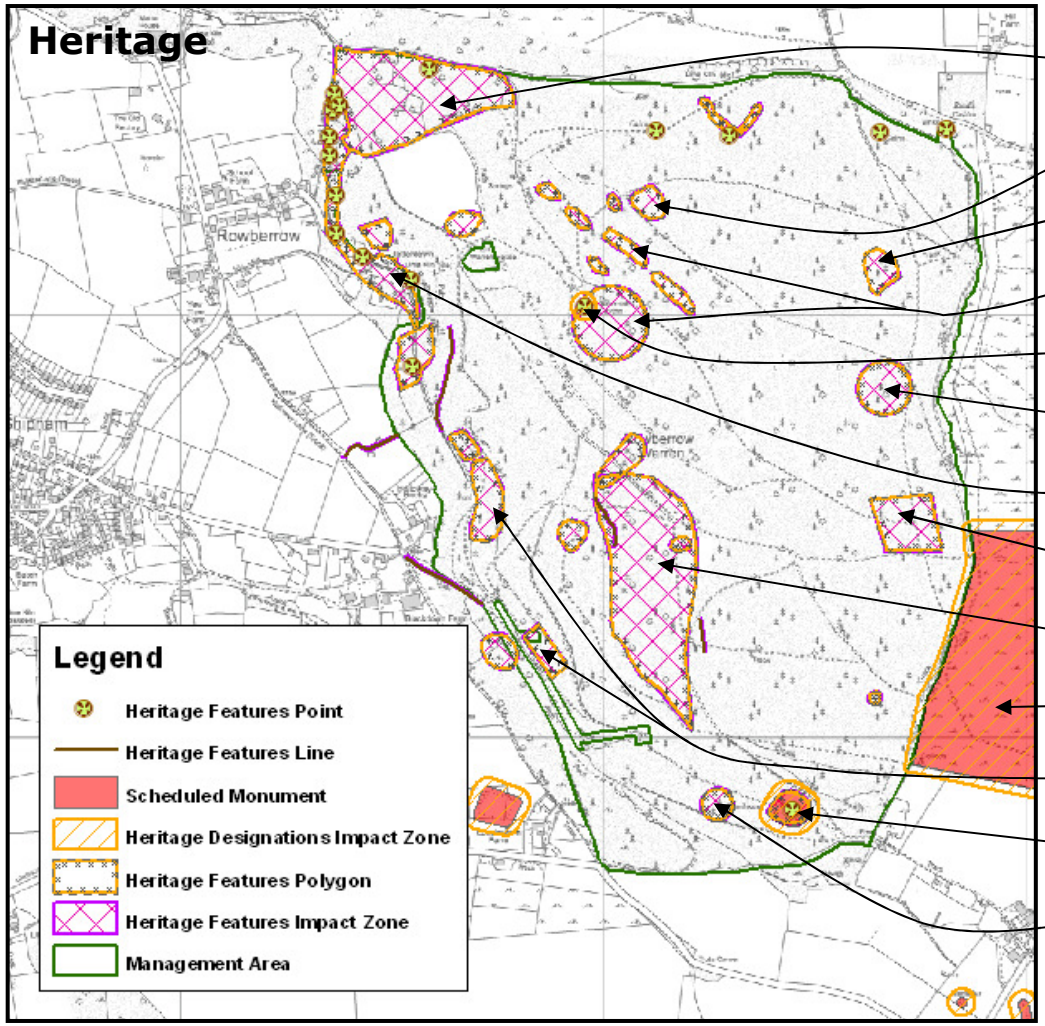
Viewpoint No.1:
Long Term Structure



Viewpoint No.2
Future Structure

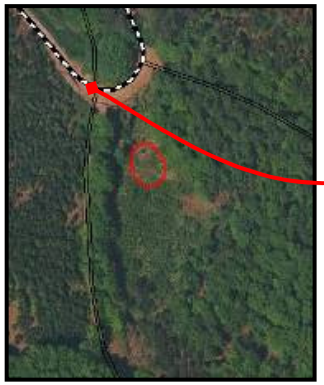


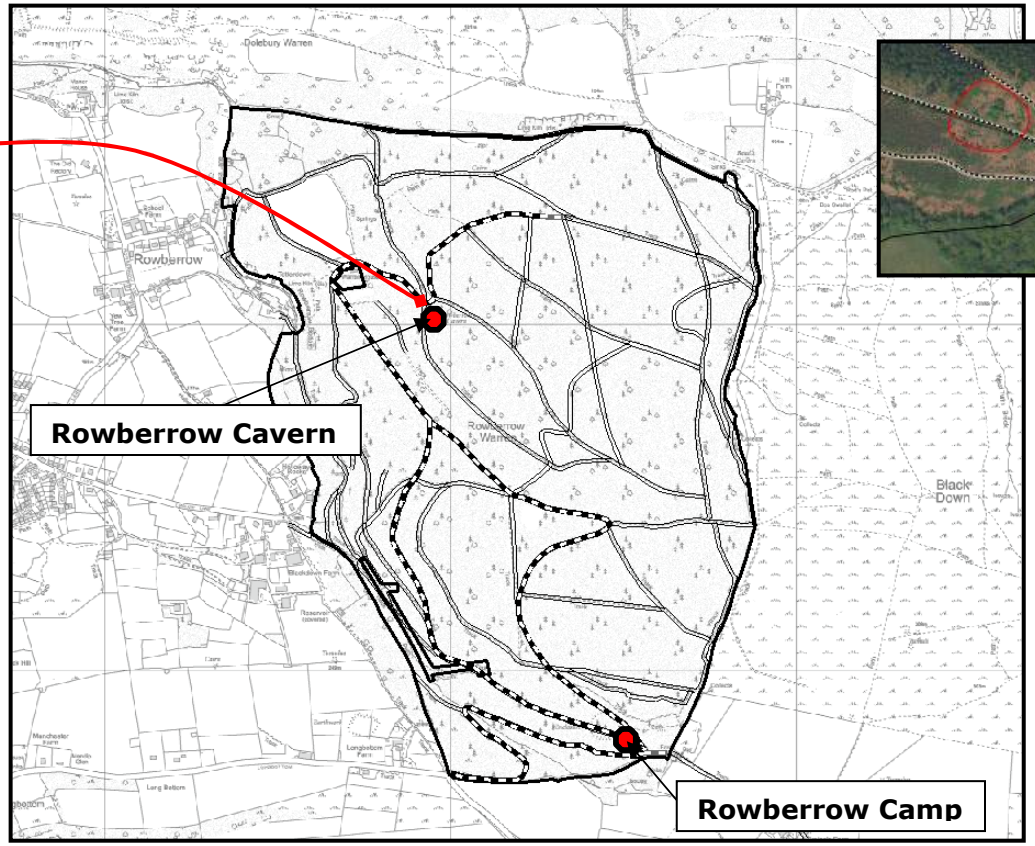
Appendix 2: Management considerations

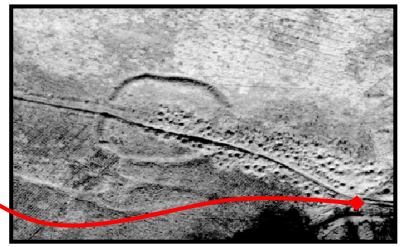


- Field System
- Round Barrow site
- Linear AP marks
- Pillow Mounds
- **SAM** - Rowberrow Cavern
- Burrington 'A' QL Bombing Deco
- Desserted Village
- Rectilinear AP Marks
- Lineal banks and ditches
- World War II bombing decoy complex
- Fields/enclosures
- **SAM** - Iron-age camp (defended settlement)
- Bronze age dagger find

SAM management summary (The full SAM plan can be viewed in Appendix 3)







b/w aerial photo courtesy of English Heritage, taken by RAF in 1946

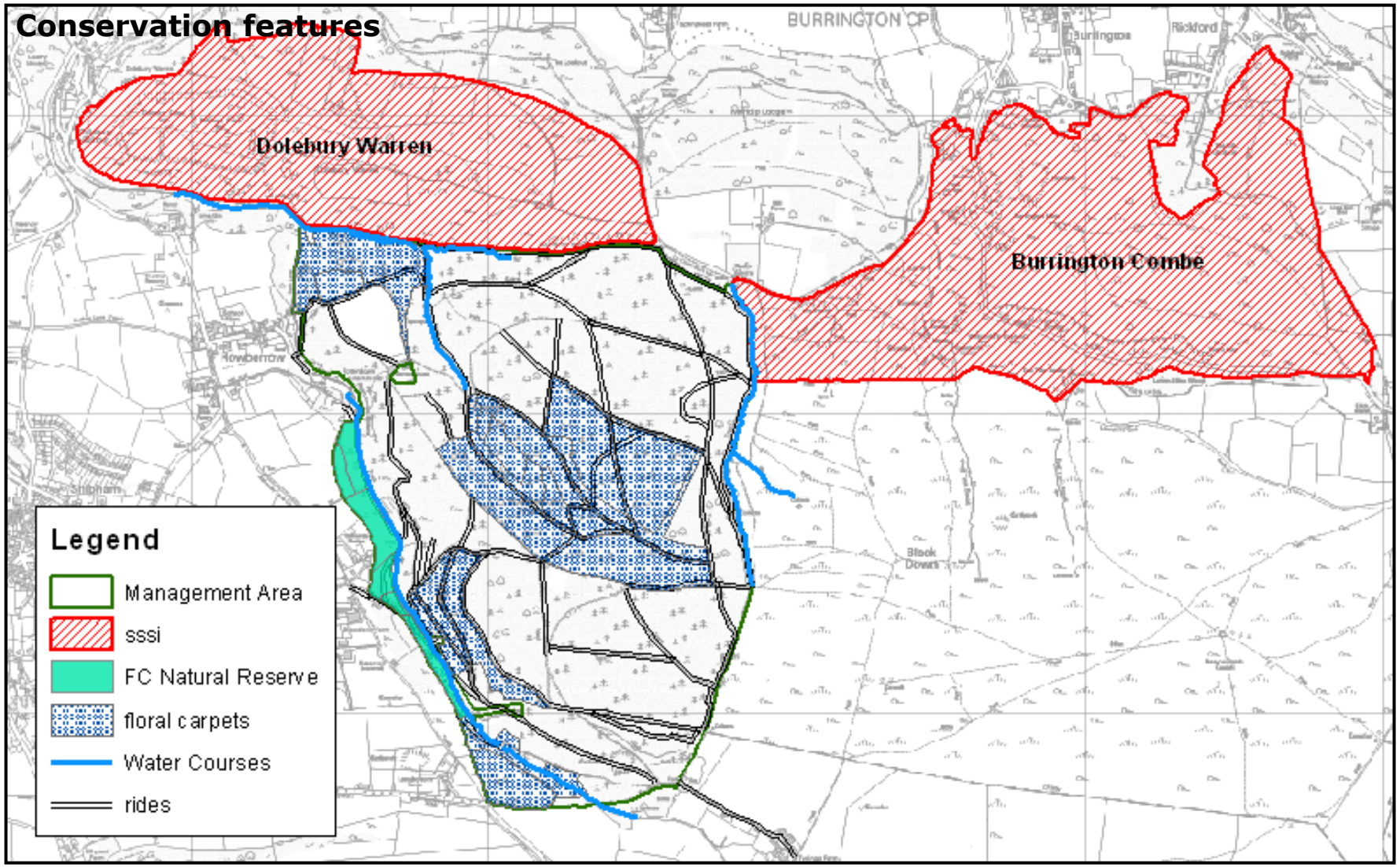
Rowberrow Cavern is a wide-entranced cave with an extensive platform outside thought now to be a collapsed extension of the cave. It is regarded as important for its rare Palaeolithic hearth material and extensive nature of remaining deposits both inside and outside the cave. Caves and rock shelters like this one are therefore of major importance for understanding this period providing some of the earliest evidence of human activity in the period from about 400,000 to 10,000 years ago; often located near the cave entrance. Rowberrow Cavern is one of twenty-one sites within Somerset forming the densest most important concentration of monuments of this type in the country.

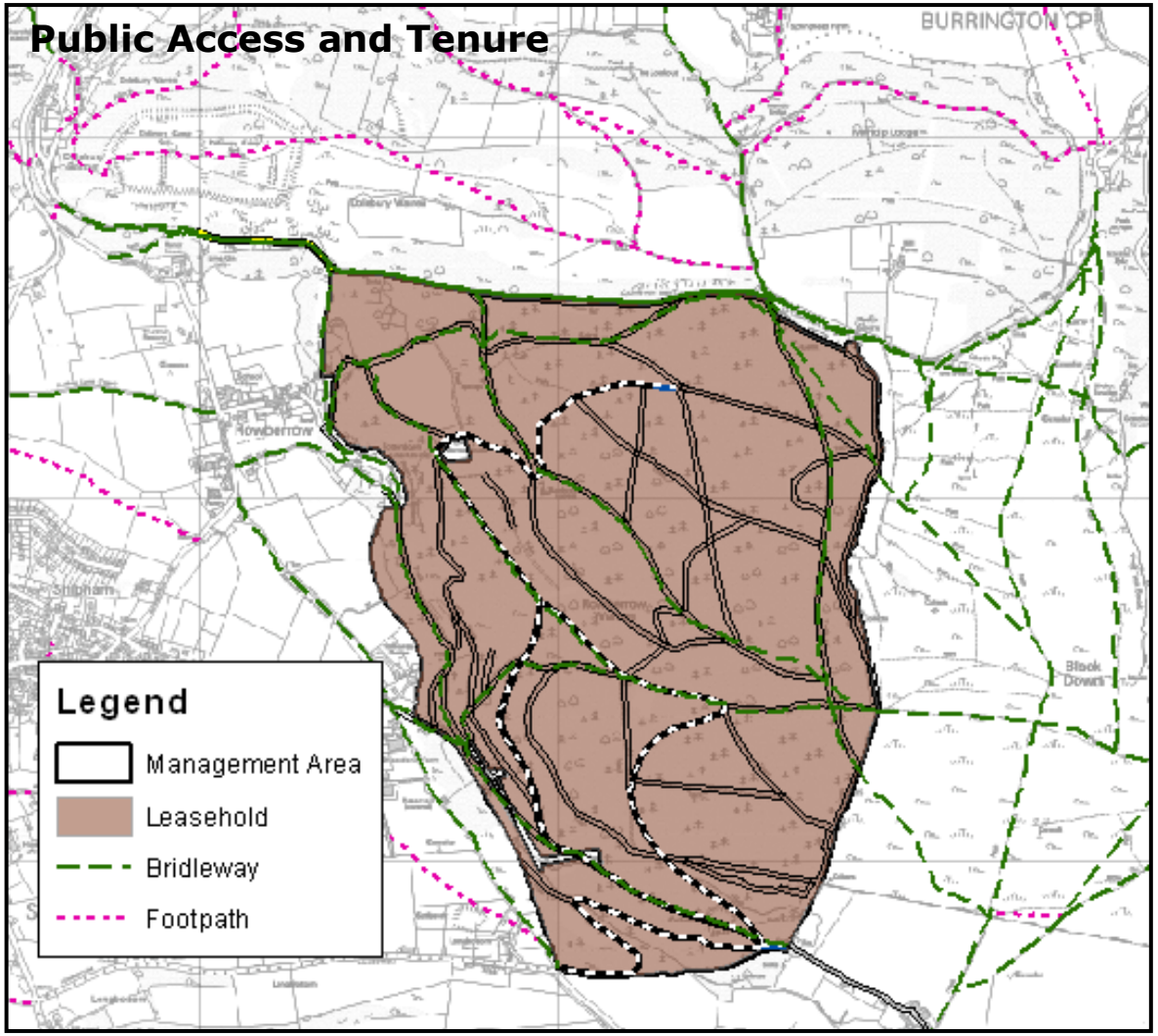
The following extract is taken from the English Heritage web-site:

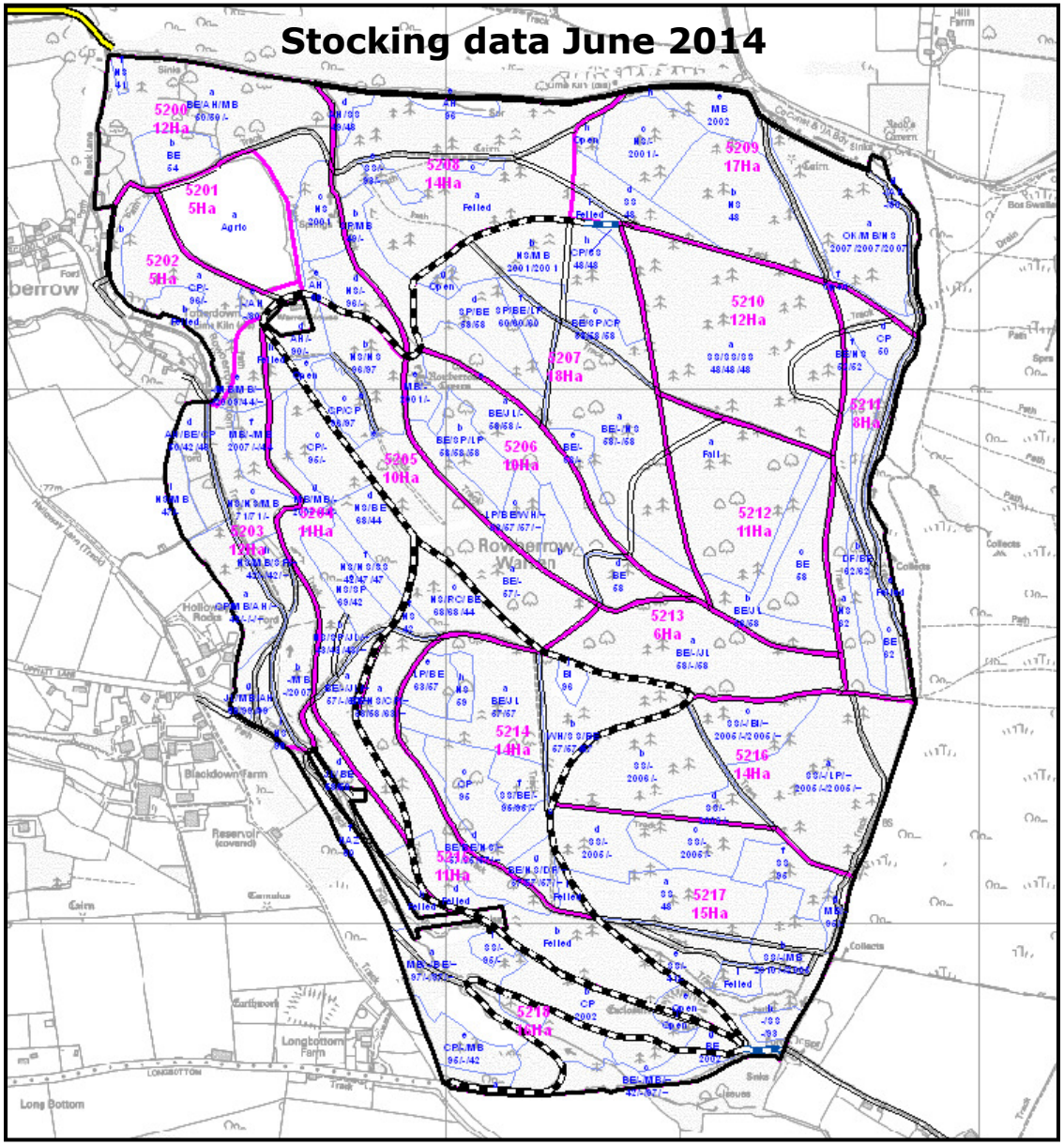
"**Rowberrow Camp**; a small Iron Age enclosed settlement photographed by the RAF on 13-JAN-1946. The interior is about 60m² and may have contained a farmstead. Rowberrow Camp may have been reused as a sheep enclosure in the medieval period. The pits inside the camp and extending to the east appear to be mining remains, possibly prospection pits for lead."

Rowberrow Cavern – Known as a roost for Daubentons and Lesser Horse shoe bats that must be taken into account when planning work.
2014-2024 Action: A 5m buffer of open ground will be maintained around the cave entrance. Naturally occurring trees will be cut within this zone. Outside this area, maintain trees around the entrance, linking the lesser horseshoe bats to their feeding grounds.

Rowberrow Camp – Trees have been removed to open up the camp during the previous plan period.
2014-2024 Action: Maintain as an open with no woody vegetation. Access for harvesting machinery is restricted to the periphery of the monument and the hard stone track through the middle of the site. Brash will be left on site to rot down naturally.


Conservation features
Dolebury Warren
Burrington Combe
BURRINGTON CP
Rowberrow
Legend
Management Area
sssi
FC Natural Reserve
floral carpets
Water Courses
rides


Public Access and Tenure
BURRINGTON CP
Rowberrow
Shipham
Black Down
Legend
Management Area
Leasehold
Bridleway
Footpath


Stocking data June 2014
5200
12Ha
5201
5Ha
5202
5Ha
5203
12Ha
5204
11Ha
5205
10Ha
5206
10Ha
5207
18Ha
5208
14Ha
5209
17Ha
5210
12Ha
5211
8Ha
5212
11Ha
5213
6Ha
5214
14Ha
5215
11Ha
5216
14Ha
5217
15Ha
5218
Rowberrow Warren
Blackdown Farm
Longbottom Farm
Long Bottom

Pests and Diseases

- **Name:** Dothistroma Needle Blight (DBN)
  First appearance: mid 1990s
  Attacks: Pine species

Often referred to as Red Band Needle Blight (RBN) and can reduce growth rates by between 70 and 90%. Effects of RBN are managed through thinning the wood more heavily than you would normally to introduce higher levels of air flow through the remaining crop.

- **Name:** Phytopththora ramorum (PR)
  First appearance: 2009
  Attacks: Larches

P. ramorum was first found in the UK in 2002 and until 2009 in the woodland environment had largely been associated with rhododendron species acting as a host from which spores are produced. In August 2009 *P. ramorum* was found on a small number of dead and dying Japanese Larch in South West England, causing particular concern since some affected trees were not close to infected rhododendron and showing a significant change in the dynamics of the disease than experienced previously. Following this testing in Devon and west Somerset confirmed the presence of PR in mature Japanese larch as well as species in its under-storey, including sweet chestnut, beech, birch, oak, Douglas fir and Western hemlock. On some sites there is little or no rhododendron present. It is now known that Japanese larch can produce very high quantities of disease-carrying spores when actively growing in spring and summer, at much higher levels than those produced by rhododendron. These can be spread significant distances in moist air. PR is a notifiable disease dealt with by felling the infected area under a statutory plant health notice (SPHN) issued through FERA and the Forestry Commission. At present there is no PR on Oak in this part of the West England Forest District, however, around 12% of all larch within the Dean was felled in 2012 to eradicate the disease with regular aerial flyovers to keep track of hot spots. Luckily flyovers in 2013 have shown no reinfection. This is not to say there will not be a need for further fellings of infected larch required in the future.

- **Name:** Oak 'dieback' or 'decline'
  First appearance: unknown
  Affects: Oak

Oak 'dieback' or 'decline' is the name used to describe poor health in oak trees and can be split into Chronic decline and Acute decline. Chronic decline is protracted taking effect on the Oak over a number of decades whilst Acute decline is much swifter acting over much shorter periods usually five years or so. Symptoms can be caused by a range of living agents e.g. insect and fungal attack, or non-living factors, e.g. poor soil and drought. Factors causing decline can vary between sites, as can the effects of the factors through time. Oak decline is not new; oak trees in Britain have been affected for the most part of the past century. Both native species of oak are affected, but Pedunculate oak (*Quercus robur*) more so than Sessile oak (*Quercus petraea*). Successive exposure any of these agents on a yearly/seasonal basis further reduces the health of the tree and predisposes it to other living (Biotic) agents that can often spell the final death knell for the tree.

- **Name: Chalara fraxinea**
  First appearance: currently N/A
  Attacks: Ash

Pretty rampant in Europe, showing up in 2012 mainly in East Anglia and along the East coast of England. To date no infection has been found within this part of the West England Forest District and let us hope it stays that way!

Glossary of terms (in alphabetical order)

Term	Abbreviation	Description
Ancient Semi-Natural Woodland	ASNW	An ancient woodland site, where trees and other plant species appear to of established naturally rather than having been planted. Predominantly these sites will contain 80% or over of site native species or species native to the surrounding area.
Ancient Woodland Site	AWS	A site that has technically been wooded since 1600AD and is unlikely to have been converted to farmland in the last few centuries.
Clearfell or clearfall	C/F or CF	To cut and remove all trees from a certain area of woodland.
Crop		A stand of trees. Often associated with stands completely or partially managed for its timber. Just as farmers manage crops so does forestry the only difference is a farmers' rotation is shorter and often realised in 1 year. Trees are a much longer term crop with rotations varying from 6 years to 400 years. (also see definition for rotation)
Enrichment planting		Planting different species within areas of regen that helps diversify the range of species in a wood and in doing so can make it more resilient to future climate change and future threats from disease. Enrichment may be desirable in areas where success of regeneration is uneven, patchy or where a regen crop is limited by the number of species present.
Forestry Stewardship Council	FSC	An international non-profit organisation dedicated to promoting responsible forestry. FSC certifies forests all over the world to ensure they meet the highest environmental and social standards. Products made with wood and paper from FSC forests are marked with the FSC 'tick tree' logo. When you see this logo, you can be confident that buying it won't mean harming the world's forests.
Group felling / group planting		This is where small areas of woodland are felled hence the name "group felling" and then either allowed to develop through the use of nat-regen or in this case planted hence "group planting". These techniques can help to develop structure* within a wood over a given length of time and is often used in conjunction with continuous cover. *Either in terms of age or number of tree species present, since shelter and shade are provided by the remaining

		upper storey one can consider a larger number of tree species when deciding what to plant.
Hectare	Ha	Unit of area equating to 2.47 acres.
Mixed Wood		Woodland consisting of both conifer and broadleaf species.
Native (and honorary native)		The trees making up the woodland are part of England's natural, or naturalised flora. Determined by whether the trees colonised Britain without assistance from humans since the last ice age (or in the case of 'honorary natives' were brought here by people but have naturalised in historic times); and whether they would naturally be found in this part of England.
Natural Regeneration	Regen or nat-regen	Trees growing on a site as a result of natural seed fall, and can be used as a management process and can allow cleared areas of woodland to germinate, grow and develop naturally. This process can happen anywhere and woods can be managed to encourage nat-regen although there is no guarantee of success. In these instances, or if nat-regen is unlikely for a variety of reasons, one can use enrichment planting or group planting to achieve the same affect. The process usually relies on an overstorey of "parent trees" being present or on parent trees being close by to provide the seed. These parent trees will usually have been thinned and managed with natural regeneration in mind. Existing areas of nat-regen are then usually developed through carefully thinning the surrounding woodland over a number of years, to give more light and space to ensure the young trees can establish themselves into larger trees eventually allowing them to be incorporated ('recruited') into the main crop for the next rotation at some point in the future. Usually done in small groups or in strips this system can allow a varied woodland structure to develop over time. Protection from competing plant species and mammal browsing might be required in the early stages by fencing or using tree shelters.
Operational guidance 1	Ops 1	A site analysis, assessment and methodology statement carried out during the planning of harvesting operations. It outlines management considerations, looks at other

		influences on proposed work and states how the proposed work will be carried out.
Programme for the Endorsement of Forest Certification	PEFC 	PEFC is an international non-profit, non-governmental organization dedicated to promoting Sustainable Forest Management (SFM) through independent third-party certification. It is an umbrella organization and works by endorsing national forest certification systems developed through multi-stakeholder processes and tailored to local priorities and conditions.
Rotation		Generally a commercial term used to describe the length of time an area of trees is growing for, from the time of planting to the time of felling. For broadleaves a rotation is generally a lot longer than that of conifer species* and can broadly speaking be anywhere between 80 years to 3-400 years, as opposed to conifer crops whose rotation is generally shorter but can vary from 20-25 years to 120 years plus. *The exception being that of coppice where rotation length can vary from 5 or 6 years up to 30 years plus depending on management objectives. "First rotation" would refer to an area of wood planted on open ground not previously wooded. And so "second rotation" is one where woodland has been cleared and replanted.
Shelterwood		A management system that is applicable to conifer or broadleaf, where tree canopy is maintained at one or more levels without the need to clearfell the whole site. Felling can occur, but generally in small "groups" whose size shape and spatial distribution will vary depending on site conditions. The "groups" are then either: allowed to develop and establish by the use of natural regeneration, are planted or are established using a mixture of both techniques. This known as a "group shelterwood system" A variation on this is "Single tree selection". This variation removes individual trees of all size classes more or less uniformly throughout the stand to maintain an uneven-aged stand and achieve other stand structural objectives. While it is easier to apply such a system to a stand that is naturally close to the uneven-aged condition, single tree selection systems can be prescribed for even-aged stands, although numerous preparatory thinning interventions must be made to create a stand structure where the system can truly be applied.

Silviculture		A term coined during late 19th century from the Latin *silva* meaning 'wood' and the French *culture* meaning 'cultivation' and so Silviculture is the art and science of controlling the establishment, growth, composition, and quality of forest vegetation to achieve a full range of forest resource objectives.
Silvicultural systems		These refer to a wide range of complete regimes for the regenerating, tending, and harvesting of forests and are called "silvicultural systems".
Stand		A group or area of trees that are more or less homogeneous with regard to species composition, density, size, and sometimes habitat.
Thin	TH	Selective removal of trees from a wooded area, giving remaining trees more space to grow into larger trees. Thinning is done to: 1. Improve the quality and vigour of remaining trees. 2. Remove trees interfering with mature or veteran broadleaf trees. 3. Give space for tops (or "crowns") of broadleaf trees to develop and potentially act as a future seed source. 4. Give space for natural regeneration to grow and develop with the intention of recruiting these younger naturally grown trees as a part of the future woodland structure. 5. Create gaps for group planting or enrichment. 6. Remove species of tree that may compromise the intended management objective of the woodland eg: non-native or invasive species such as Sycamore, Western Hemlock or birch. 7. Improve the economic value of a wood. 8. Help realise opportunities to enhance ecological value. **NOTE:** This list is not in any order of priority and will vary depending on management objectives.
Yield Class	YC	A method of measuring the growth rate or "increment" of a crop of trees by age and height; measured in m3 per Ha per annum. E.g. A crop with a YC of 16 is one that has an annual increment of more than 16m3 but less than 17m3, although generally only even numbers are used when stating YC.

WEST ENGLAND FOREST DISTRICT

Scheduled Ancient Monument Plan

Rowberrow Cavern and Rowberrow Camp

SAM plan period 2014-2024
Part of Rowberrow Warren Forest Plan for 2014-2024

Approved: Peter Kelsall

Name: P Kelsall
pp West England Forest District Management Director
Date: 02/12/2014

Approved: Nick Croxson

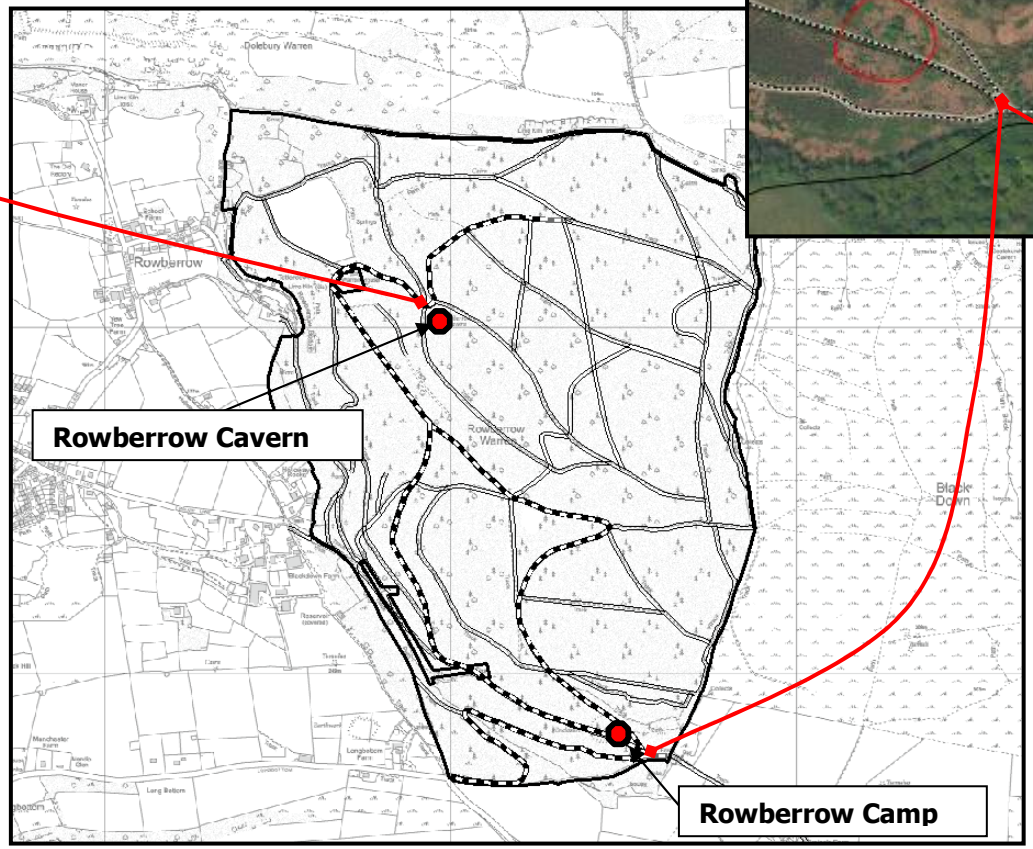
English Heritage
Name: Nick Croxson – Heritage at Risk Projects Officer

Date: 02/12/2014

Introduction
This management plan covers both Rowberrow Cavern and Rowberrow camp that are both Scheduled Ancient Monuments situated in Rowberrow Warren just south of Burrington Coombe and West of Charterhouse.

Details of the management of both sites are given below, but the over riding principle is the maintenance of open ground and a buffer zone that will help minimise root penetration from surrounding tree and scrub growth that may cause damage to the monuments.

SAM management summary



b/w aerial photo of Rowberrow Camp courtesy of English Heritage,
Taken by RAF in 1946

Rowberrow Cavern is a wide-entranced cave with an extensive platform outside thought now to be a collapsed extension of the cave. It is regarded as important for its rare Palaeolithic hearth material and extensive nature of remaining deposits both inside and outside the cave. Caves and rock shelters like this one are therefore of major importance for understanding this period providing some of the earliest evidence of human activity in the period from about 400,000 to 10,000 years ago; often located near the cave entrance. Rowberrow Cavern is one of twenty-one sites within Somerset forming the densest most important concentration of monuments of this type in the country.

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"**Rowberrow Camp**; a small Iron Age enclosed settlement photographed by the RAF on 13-JAN-1946. The interior is about 60m² and may have contained a farmstead. Rowberrow Camp may have been reused as a sheep enclosure in the medieval period. The pits inside the camp and extending to the east appear to be mining remains, possibly prospection pits for lead."

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2014-2024 Action: A 5m buffer of open ground will be maintained around the cave entrance. Naturally occurring trees will be cut within this zone. Outside this area, maintain trees around the entrance, linking the lesser Horseshoe bats to their feeding grounds.

Rowberrow Camp – Trees have been removed to open up the camp during the previous plan period.
2014-2024 Action: Maintain as an open with no woody vegetation. Access for harvesting machinery is restricted to the periphery of the monument and the hard stone track through the middle of the site. Brash will be removed from site.

Name of Monument	**Rowberrow Cavern**
Monument number	13206
Local Authority SMR No	10767
OS Grid Ref	ST 4595 5802
FE District	West England
FE Compartment & Beat	5206 Bristol and Savernake
Area	0.1Ha
Plan Period	2014 - 2024
Design plan ref	

Objectives of Management
A 5m buffer of open ground will be maintained around the cave entrance to reduce the likelihood of root penetration, with the buffer being left as open land. Naturally occurring trees will be cut within this zone. Outside this area, trees cover will be managed around the entrance, in order to maintain linkages for the Lesser Horseshoe bats to aid navigation their feeding grounds.

Scheduled Legal Description
Rowberrow Cavern is a wide-entranced cave with an extensive platform outside thought now to be a collapsed extension of the cave. The cave entrance is 6.5m narrowing for 25m back. A side passage leads from the left of the main tunnel. The platform outside the tunnel has spoil tips from excavation and a 2-3m wide trench cut for access. Excavations inside the cave mouth in 1920-26 revealed beneath a "floor" a spread of Palaeolithic hearth material including flint artefacts. This was recorded as continuing back into unexcavated deposits. Iron Age and Roman remains were recorded from the higher levels.

Safeguarding the site
The site comprises a cavern having been inhabited intermittently from the Palaeolithic period onward. The cavern has a large entrance and extends back approximately 25 meters. The cavern has been excavated on a number of occasions.

It is surrounded by semi-mature beech and larch to the east, and conifers to the west. The conifers have started suffering from windthrow. Scattered shrubs are situated around the entrance with one tree growing immediately above the entrance.

A bridleway passes by approximately 20m to the north but the cavern is not obvious from this side due to the elevated position of the monument and access to the monument will not be promoted.

The cavern is known to act a s roost for Daubenton's and Lesser Horseshoe bats.

Monitoring
The site will be routinely monitored by site visits by the Beat Forester. To that end a diary of visits and work undertaken in and around the vicinity of the cavern will be kept, recording what is done, by whom and any associated cost.

The site must be taken into account during the planning of any forest operations and monitored during operations to ensure no detrimental damage to the monument occurs.

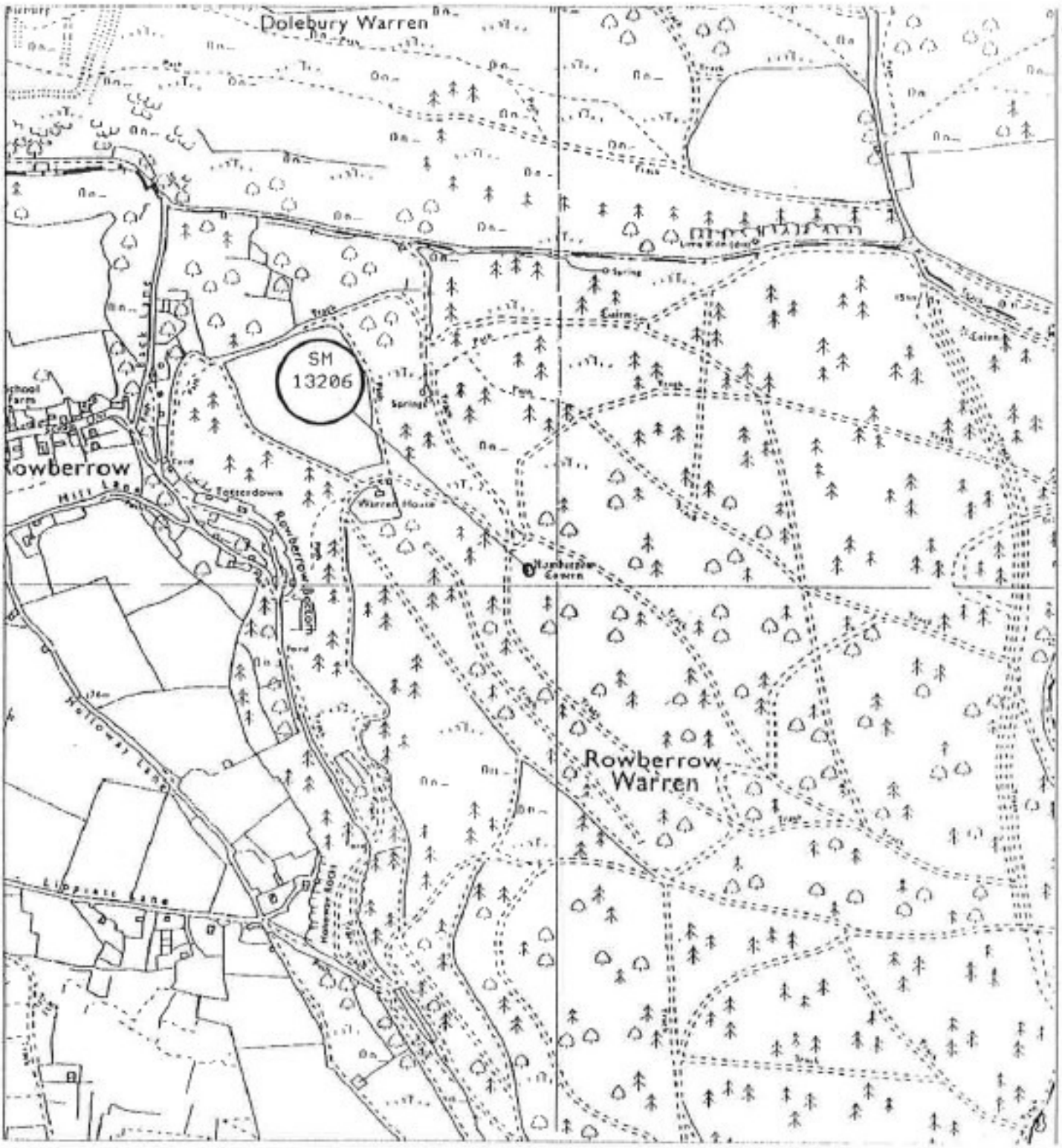
Rowberrow Cavern SAM **Work proposed for the period 2014 – 2024**		1	2	3	4	5	6	7	8	9	10
1	Undertake and maintain photographic record of condition	◆				◆					◆
2	Maintain a 5m buffer of open ground around the cave entrance. Naturally occurring trees and scrub will be cut within this zone. Outside of this area maintain trees around the entrance, linking the lesser Horseshoe bats to their feeding grounds.	◆				◆					◆
3	Bats that must be taken into account when planning work.	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
4	A diary of visits and work undertaken in and around the vicinity of the cavern will be kept, recording what is done, by whom and any associated cost.	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆






The above photos were taken in October 2014 and illustrate that most vegetation is of a herbaceous nature with some regeneration of native scrub. Though the entrance itself remains relatively unobscured but needs monitoring to ensure the ground to the front remains open.

Scheduled Monument



For identification purposes only

Site Name: Rowberrow Cavern, Mendip Forest

County: Somerset	**District:** Sedgemoor	**Parish:** Shipham

Notes:

Key: Monument No. Location/extent of site

Scale: 1:10000 **Derived from:** 1:10000

Centred on NGR: ST45955802

Extract from OS sheet: ST45NE

Date: 13.11.90 **Monument No:** SM13206

English Heritage

Fortress House 23 Savile Row London W1X 1AB Telephone 071 973 3000 Fax 071 973 3001

ENTRY IN THE SCHEDULE OF MONUMENTS COMPILED AND MAINTAINED BY THE SECRETARY OF STATE FOR THE ENVIRONMENT UNDER SECTION 1 OF THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979 AS AMENDED BY THE NATIONAL HERITAGE ACT 1983

MONUMENT: Rowberrow Cavern, Mendip Forest

PARISH: Shipham

DISTRICT: Sedgemoor COUNTY: Somerset

NATIONAL MONUMENT NUMBER: 13206

NATIONAL GRID REFERENCE: ST 4595 5802

A DESCRIPTION OF THE MONUMENT

Rowberrow Cavern is a wide-entranced cave with an extensive platform outside that is thought to be a now collapsed extension of the cave. The cave is 6.5m wide at the entrance and continues as a gradually narrowing passage for 25m. There is a side passage leading from the left side of the main tunnel.
Outside the entrance is a level platform consisting mainly of collapse material and ending in a talus. The platform is partly overlain by excavation spoil and is bisected by a narrow excavation trench, 2-3m wide and 20m long, which runs from the edge of the talus to the cave mouth. Inside the cave mouth is a deep rectangular excavation trench cut into the entrance deposits. Excavations carried out by Taylor between 1920 and 1926 revealed beneath a 'cemented floor' a 2m spread of Palaeolithic hearth material, including flint artofacts. Importantly, this was recorded as continuing into the unexcavated deposits towards the back of the cave. Also recorded from higher levels in the cave were Iron Age and Roman remains.
The monument includes all deposits inside the cave from the entrance to 25m into the interior, and outside the cave includes the deposits of the platform.

ASSESSMENT OF IMPORTANCE

Palaeolithic caves and rockshelters provide some of the earliest evidence of human activity in the period from about 400,000 to 10,000 years ago. The sites, all natural topographic features, occur mainly in hard limestone in the North and West of the country, although examples also exist in the softer rocks of South-East England. Evidence for human occupation is often located near the cave entrances, close to the rock walls or on the exterior platforms. The interiors sometimes served as special areas for disposal and storage or were places where material naturally accumulated from the outside. Because of the special

Continued

SIGNED.....
On behalf of the Secretary of State for the Environment

ASSESSMENT OF IMPORTANCE continued

conditions of deposition and preservation, organic and other fragile materials often survive well and in stratigraphic association. As such caves and rockshelters are of major importance for understanding this period. Due to their comparative rarity, their considerable age and their longevity as a monument type, all examples with good survival of deposits, are considered to be nationally important.

The twenty-one sites in Somerset form the densest and one of the most important concentrations of monuments of this type in the country. Rowberrow Cavern is regarded as important for its rare Palaeolithic hearth material and the very extensive nature of the remaining deposits both inside and outside the cave.

The site of the monument is shown on the attached 'Scheduled Monument' map extract outlined in black and highlighted in red.

MONUMENT INCLUDED IN THE SCHEDULE ON..... 18 March 1991.....

SIGNED.....
On behalf of the Secretary of State for the Environment

Name of Monument	**Rowberrow Camp**
Monument number	24023
Local Authority SMR No	10767
OS Grid Ref	ST 4644 5682
FE District	West England
FE Compartment & Beat	5215 and 5218 Bristol and Savernake
Area	0.1Ha
Plan Period	2014 - 2024
Design plan ref	

Objectives of Management
Maintain as an open with no woody vegetation. Access for harvesting machinery is restricted to the periphery of the monument and the hard stone track through the middle of the site. Brash should be removed from site.

Try and maintain the site as an open grassy area; although it is noted that some bramble and perhaps gorse may aid in deterring illegal access, especially mountain bikers .

Scheduled Legal Description
The monument includes a sub-square enclosure representing an Iron Age defended settlement set on a hillside towards the head of a steep valley. The enclosure is formed of a bank 0.5m high internally and external ditch upto 0.75m deep, defining a rectilinear enclosure with rounded corners containing 3.6Ha of ground on the south-west facing slope. On the lower side the bank is absent. The enclosure is on a concave slope, the ground at the top being extremely steep. There are three gaps in the earthworks; on the west and south-east where a modern track crosses the enclosure and on the south-west corner. Those gaps associated with the track are now c.10m wide, but, particularly on the west, may contain elements of original entrances to the enclosure. The gap on the south west corner is c2m wide and poorly defined. The enclosure would have originally had 1 or possibly 2 entrances.

The situation of this site near the head of a valley leading up onto the hills suggests that it functioned as part of a stock enclosure. There is a broadly similar enclosure half a mile to the west near the head of an adjoining valley.

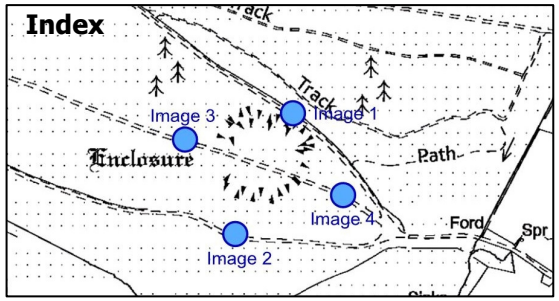
Safeguarding the site
The site comprises a sub-square enclosure formed by a low bank and ditch barely perceptible due to the ground vegetation. The majority of the site has been afforested with conifers in the past but the majority of these have been removed with only scattered groups remaining.

A hard stone bridleway runs east-west through the middle of the monument which is well used by horses, and occasionally forest machinery. There does not appear to cause any subsidence. The main forest road runs immediately to the north and south of the monument. There are signs of intensive badger activity.

Monitoring
The site will be routinely monitored by site visits by the Beat Forester. To that end a diary of visits and work undertaken in and around the vicinity of the camp will be kept, recording what is done, by whom and any associated cost.

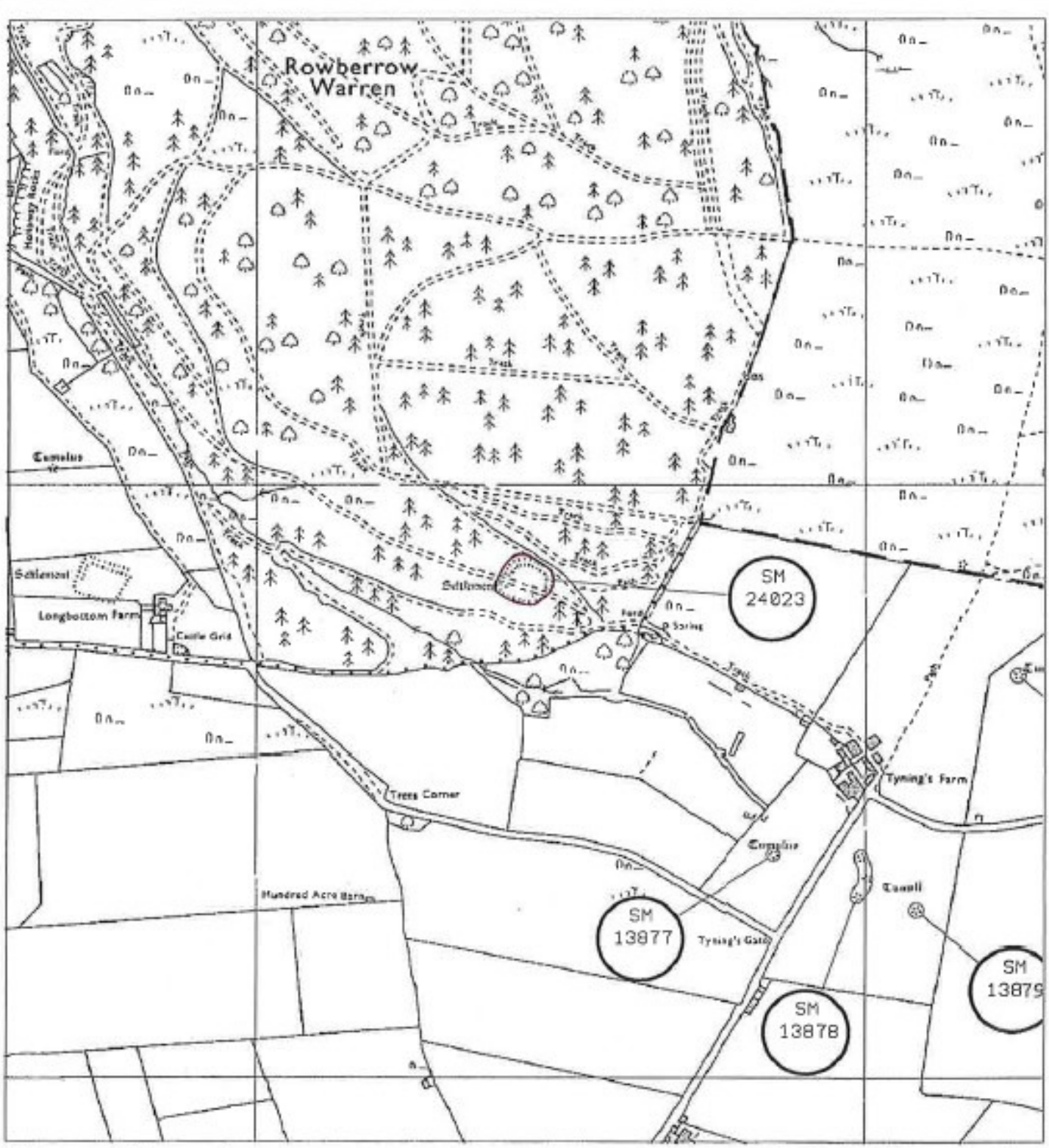
The site must be taken into account during the planning of any forest operations and monitored during operations to ensure no detrimental damage to the monument.

Rowberrow Camp SAM **Work proposed for the period 2012 – 2023**		1	2	3	4	5	6	7	8	9	10
1	Undertake and maintain photographic record of condition	◆				◆					◆
2	The camp should be kept clean of woody growth and coppice to prevent root penetration of the site with the brash being removed from site.	◆				◆					◆
3	Maintain a minimum 5m buffer of scrub, bramble and gorse ground around the monument to act as a deterrent in preventing illegal access. A site meeting with English heritage should be held to determine the exact position of this scrub buffer.	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
4	Monitor possible damage that could be caused by such activities e.g. mountain biking. Notify and consult with English Heritage if problems are noticed.	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
5	A diary of visits and work undertaken in and around the vicinity of the camp will be kept, recording what is done, by whom and any associated cost.	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆



The above photos were taken in November 2014. Photo 1 is on the left and photo 4 to the right. The photos show significant areas of scrub that will need to be managed during the next ten years to ensure favourable condition is maintained.

Scheduled Monument



For identification purposes only

Site Name: Rowberrow Camp: an Iron Age defended settlement NW of Tynings Farm

County: Somerset	**District:** Sedgemoor	**Parish:** Shipham

Notes:

Key: Monument No. Location/extent of site

Scale: 1:10000 **Derived from:** 1:10000
Centred on NGR: ST46445684
Extract from OS sheet: ST45NE

Date: 9.3.94 **Monument No:** SM24023

English Heritage
Fortress House 23 Savile Row London W1X 1AB Telephone 071-973 3000 Fax 071-973 3001

SCHEDULE ENTRY COPY

ENTRY IN THE SCHEDULE OF MONUMENTS COMPILED AND MAINTAINED BY THE SECRETARY OF STATE UNDER SECTION 1 OF THE ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979 AS AMENDED.

MONUMENT: Rowberrow Camp: an Iron Age defended settlement north west of Tynings Farm

PARISH: SHIPHAM COUNTY: SOMERSET

DISTRICT: SEDGEMOOR

NATIONAL MONUMENT NO: 24023

NATIONAL GRID REFERENCE(S): ST46445684

DESCRIPTION OF THE MONUMENT

The monument includes a sub-square enclosure representing an Iron Age defended settlement set on a hillside towards the head of a steep valley. The enclosure is formed of a bank 0.5m high internally and external ditch up to 0.75m deep, defining a rectilinear enclosure with rounded corners containing 0.36ha. of ground on a south west facing slope. On the lower side the bank is absent. The enclosure is on a concave slope, the ground at the top being extremely steep. There are three gaps in the earthworks; on the west and south east where a modern track crosses the enclosure, and on the south west corner. Those gaps associated with the track are now c.10m wide, but, particularly on the west, may contain elements of original entrances to the enclosure. The gap on the south west corner is c.2m wide and poorly defined. The enclosure would originally have had one, or possibly two, entrances.
The situation of this site near the head of a valley leading up onto the hills suggests that it functioned as part of a stock enclosure. There is a broadly similar enclosure 0.7km to the west near the head of an adjoining valley.

ASSESSMENT OF IMPORTANCE

During the Iron Age a variety of different types of settlement were constructed and occupied in south-western England. At the top of the settlement hierarchy were hillforts built in prominent locations. In addition to these a group of smaller sites, known as defended settlements, were also constructed. Some of these were located on hilltops, others in less prominent positions. They are generally smaller than the hillforts, sometimes with an enclosed area of less than 1ha. The enclosing defences were of earthen construction. Univallate sites have a single bank and ditch, multivallate sites more than one. At some sites these earthen ramparts represent a second phase of defence, the first having been a timber fence or palisade. Where excavated, evidence of stone- or timber-built houses has been found within the enclosures, which, in contrast to the hillfort sites, would have been occupied by small communities, perhaps no more than a single family group.
Defended settlements are a rare monument type. They were an important element of the settlement pattern, particularly in the upland areas of south-western England, and are integral to any study of the developing use of fortified settlements during this period. All well-preserved examples are likely to be identified as nationally important.

(Continued ..)

SIGNED BY: A R Middleton
On behalf of the Secretary of State for National Heritage.

ASSESSMENT OF IMPORTANCE (Continued)

In addition to settlement sites, some defended enclosures of this period had only temporary or seasonal occupation, or functioned primarily as stock enclosures.
Rowberrow Camp survives as a good example of its class, with another similar enclosure situated 700m to the west.

MAP EXTRACT

The site of the monument is shown on the attached map extract outlined in black and highlighted in red. It includes a 2 metre boundary around the archaeological features, considered to be essential for the monument's support and preservation.

SCHEDULING HISTORY

Monument included in the Schedule on 31st March 1949 as:
COUNTY/NUMBER: Somerset 202
NAME: Camp 700 yards NW of Tyning's Farm

The reference of this monument is now:
NATIONAL MONUMENT NUMBER: 24023
NAME: Rowberrow Camp: an Iron Age defended settlement north west of Tynings Farm

SCHEDULING REVISED ON 19th August 1994

SIGNED BY: A R Middleton
On behalf of the Secretary of State for National Heritage.

ENGLISH HERITAGE

Removing Trees and Scrub from Scheduled Monuments

Trees and scrub can be harmful to archaeology for several reasons and are usually best removed from Scheduled Monuments and other sensitive archaeological sites. Where this is the case operations must be undertaken carefully so as not to disturb the ground surface, and should follow this guidance in order to prevent damage occurring. Damaging a Scheduled Monument is an offence under the Ancient Monuments and Archaeological Areas Act 1979 and Scheduled Monument Consent (SMC) may be required where operations could cause harm to a monument. Should there be any doubt whether SMC is needed please consult with English Heritage.

1. All site personnel/contractors should be made aware of the scheduled status, the monuments boundaries, and their own responsibilities with regard to the monument as defined in the Ancient Monuments and Archaeological Areas Act 1979.

2. Trees and scrub should be cut off at ground level, and the stumps treated in-situ where possible. Roots and stumps must ***not*** be grubbed out. If treating the stumps is not possible then any regrowth should be controlled by mechanical means.

3. All works should only be undertaken when weather and ground conditions are suitable (i.e. the ground surface must not be broken or disturbed).

4. Due notice of archaeological earthworks should be taken when felling larger trees and boughs, and measures should be taken to ensure that damage to the ground surface is not caused by falling timber.

5. Mechanically assisted removal of timber (winching, hauling etc.) should only be undertaken where such operations will not affect the ground surface. Where there is risk of damage occurring brash mats should be used, especially on breaks of slopes.

6. Vehicles should not be taken onto or across a monument when ground conditions are unsuitable (i.e. if rutting occurs works should cease).

7. Felled materials should be disposed of off-site where possible and should *not* be burnt on site without permission from English Heritage. In some cases chippings may be spread over the site if agreed with English Heritage.

To prevent disturbance to nesting birds in accordance with the Wildlife and Countryside Act 1981, works should not take place during the nesting season (generally taken to be between March and September inclusive)