

Management Plan Review & Update 2021

Arford Common



Sarah Jackson
September 2021

Acknowledgements

Arcadian Ecology & Consulting Ltd were contracted by Headley Parish Council to deliver this work. The author would also like to thank Mark Dickens and Virginia Evers, Headley Parish Council, for showing the surveyor around the site.

Publication Details

This document should be cited as: Jackson, S. (2021) *Management Plan Review & Update 2021, Arford Common*. Arcadian Ecology & Consulting Ltd, Curdridge.

Arcadian Ecology & Consulting Ltd is a wholly owned subsidiary of Hampshire and Isle of Wight Wildlife Trust.

Maps reproduced under Ordnance Survey licence no. 100015632 with the permission of Her Majesty's Stationery Office, Crown Copyright 2021. Unauthorised reproduction infringes Copyright and may lead to prosecution or civil proceedings.

Front Cover: Arford Common by Sarah Jackson

Published by:
Arcadian Ecology & Consulting Ltd.
Beechcroft House
Vicarage Lane
Curdridge
Hampshire
SO32 2DP

A company Ltd by guarantee & registered in England No. 10033962.

All assessments and recommendations provided are based on the information available to Arcadian Ecology & Consulting Ltd (Arcadian Ecology), and Arcadian Ecology endeavours to ensure all advice is accurate and appropriate at the time of publication. However, it is the sole responsibility of the recipient to ensure that any actions they take are both legally and contractually compliant, and Arcadian Ecology does not accept responsibility or liability for any losses incurred or arising from the advice we provide.

No part of this document may be reproduced without permission. Information contained in this report is intended for Headley Parish Council. Records of protected and notable species may be forwarded to relevant recording organisations with site names removed. All other information in this report should not be passed on to any third party without the express permission of Headley Parish Council and Arcadian Ecology. For information on how to obtain further copies of this document and accompanying data please contact Arcadian Ecology: arcadian@hiwwt.org.uk

Document Control

Version	Author name	Date	Signed off by	Date
Draft	Sarah Jackson	09.06.2021	Deborah Whitfield	11.06.2021
Draft (V2)	Sarah Jackson	09.08.2021	Deborah Whitfield	09.08.2021
Final	Sarah Jackson	20.09.2021	Deborah Whitfield	20.09.2021

Executive Summary

Arford Common was once part of an extensive area of open heathland. It became fragmented and isolated within the landscape, and without the historic grazing practices developed into secondary pine and young hardwood woodland. The site is designated as a Site of Importance for Nature Conservation for retaining significant remnants of heathland vegetation to enable its recovery. As the woodland has continued to grow, increased shading has reduced the remnant heathland species.

The site is much enjoyed by the local residence and is a source of pride to the Parish Council.

Five years have elapsed since the last management plan was written. This report provides a review and update to the previous plan.

On-going management, such as thinning and scrub control, will continue to provide an excellent habitat for wildlife and a place for local residents to enjoy.

Table of Contents

1.	INTRODUCTION	4
1.1.	Background	4
1.2.	Site Description	4
1.3.	Designations.....	4
1.4.	Remit and Scope of the Report.....	5
2.	METHODOLOGY	6
2.1.	Walkover Survey	6
2.2.	Protected / Notable Species Assessment.....	6
2.2.1.	<i>Badger</i>	6
2.2.2.	<i>Bats</i>	6
2.2.3.	<i>Breeding birds</i>	6
2.2.4.	<i>Invertebrates</i>	7
3.	RESULTS.....	8
3.1.	Walkover Survey	8
3.1.1.	<i>Mixed semi-natural woodland</i>	8
3.1.2.	<i>Amenity grassland</i>	8
3.1.3.	<i>Scrub and Tall ruderal</i>	9
3.2.	Protected / Notable Species.....	9
3.2.1.	<i>Badger</i>	9
3.2.2.	<i>Bats</i>	9
3.2.3.	<i>Breeding birds</i>	10
3.2.4.	<i>Invertebrates</i>	10
3.2.5.	<i>Other mammals</i>	11
3.2.6.	<i>Invasive non-native species</i>	11
3.3.	Review of progress.....	11
4.	MANAGEMENT PLAN.....	15
4.1.	Woodland	15
4.2.	Grassland	15
4.3.	Scrub and Tall ruderal	15
4.4.	General advice	16
4.5.	Management plan.....	17
5.	SUMMARY.....	21
6.	REFERENCES	22

MAPS

- Map 1: Site Location
- Map 2: Management Compartments
- Map 3: Recommended Actions – Overview
- Map 4: Recommended Actions – Detail

APPENDICES

Appendix 1: Botanical species list compiled during the walkover survey

Appendix 2: Annual Work Plan

Appendix 3: Long-term Work Plan

1. INTRODUCTION

1.1. Background

Headley Parish Council contacted Arcadian Ecology & Consulting Ltd (Arcadian Ecology) to review and update the management plan for Arford Common to ensure that the plans and advice remained relevant to the site, ensuring a balance between wildlife and people using the site.

1.2. Site Description

Arford Common is located on the western end of Beech Hill, to the east of Arford village in Hampshire (SU 832 366) and covers approximately 4.5 hectares (Map 1). It is owned and managed by Headley Parish Council.

Historically Arford Common was part of an extensive area of open heath, thought to be treeless, rough grazing land. Local people were known to have made brooms and dug gravel, but it does not appear on the Commons Register held by Hampshire County Council and there are no 'Commoner's Rights' associated with it (Cruickshank 2011). As local people no longer made use of it for grazing and taking produce, the soils would have favoured colonisation by pine and birch, with the surrounding area providing seeds of other tree species. Heathers and gorse do not tolerate shady conditions and so it would have evolved into mixed woodland. By the 1950s Arford Common, like many other areas of open heath, was becoming well wooded. Parish Council minutes document a discussion about the felling of a proportion of trees (mostly pines) and Col. MacGregor (chairman of the council in 1955) prepared a report about land management that included Arford Common (Hall 1988).

In 1988 the Hampshire Biodiversity Information Centre (HBIC) survey (Hall 1988) described the common as being open pinewood amongst which were hardwood saplings. It had a natural structure, indicated by stands of trees rather than plantations, but lacked the varied height and age structure of mature woods. The survey report described eight patches of bilberry *Vaccinium myrtillus* in the central area, there were also presence of heather *Calluna vulgaris* and patches of bell heather *Erica cinerea* to the west of the site. Other remnant heathland species included sheep's sorrel *Rumex acetosella*, wood sage *Teucrium scorodonia*, gorse *Ulex europaeus* and purple moor-grass *Molinia caerulea*. The report also noted the garden plants, Spanish bluebell *Hyacinthoides hispanica* and montbretia *Crocasmia* sp. Characteristic of young woodland, there was no ground flora and as such, its wildlife value was unremarkable. The 1988 survey also gave advice about management.

In 2010 a further HBIC survey considered that the remnant heathland species had decreased further due to the increased shading over the years. There was fair woodland structural diversity, but few old trees. The woodland flora was not very rich in cover or diversity. Overall, the site was described as still having a fair wildlife interest with some diminishing potential for heathland restoration, with the management advice from 1988 remaining relevant to the site. From the survey, heather remained rare, bell heather was not seen, bilberry had changed from frequent to rare (locally frequent) and rhododendron *Rhododendron ponticum* was noted (Miller 2010), which had not been seen in 1988.

1.3. Designations

The site is designated as a Site of Importance for Nature Conservation (SINC) under criteria 3B(i): Areas of heathland which are afforested or have succeeded to woodland if they retain significant remnants of heathland vegetation which would enable their recovery.

1.4. Remit and Scope of the Report

This report aims to review and update the previous management plan written in 2016, providing recommendations on the management of the site for the benefit of wildlife and users for the next five years.

2. METHODOLOGY

2.1. Walkover Survey

A walkover survey of Arford Common was conducted on 1st June 2021 by Sarah Jackson, MCIEEM, of Arcadian Ecology.

A walkover survey of the site was undertaken, assessing progress towards actions of the previous plan, identifying areas for work and mapping management compartments. A botanical species list was created for each compartment; this list does not give every species found on the site, but will give a representation of the diversity, significance, and dominance of plant species found within each compartment. The compartments are shown on Map 2.

Plant nomenclature in this report follows Rose (1989; 2006) for native and naturalised species of vascular plant. Plant names in the text are given with the common names first, followed by the scientific name in italics. Where there is a degree of doubt in the identification of a plant, 'cf.' precedes the specific epithet to signify the plant is very probably the species indicated, but it was not possible to distinguish it from similar members of the genus with certainty.

2.2. Protected / Notable Species Assessment

An assessment of the habitats for their potential to support protected and notable species was made for the following species/groups: badger *Meles meles*, bats, breeding birds and invertebrates. Details of the species-specific survey methods are given below.

2.2.1. Badger

An initial assessment was carried out to identify areas that might be used by badgers for foraging and sett digging. Specifically, areas of potential suitable habitat were investigated for the presence of setts, and attention was paid during the survey for the presence of incidental foraging signs, paths and latrines.

2.2.2. Bats

An assessment was made of the suitability of trees and features within or on the site boundary to support roosting bats. This involved consideration of the age and condition of the tree, and identifying features that roosting bats may favour (e.g. holes, cracks and cavities that might be used as bat-entrance points or roost sites). Features with potential for roosting bats were noted, including woodpecker holes, rot cavities, splits, cracks, flaking bark and thick-stemmed or matted climbing plants.

The location of any features that are considered to have the potential to support bats, or where definite signs or other evidence of bats were found (such as actual sightings, droppings, urine stains, odour, scratch marks, grease stains and feeding remains), were recorded. However, it should be noted that finding such definitive signs or evidence is highly unlikely at this level of survey.

An assessment was also made of the suitability of the site and the surrounding landscape to support foraging and/or commuting bat species. All surveys conformed to current Bat Conservation Trust (BCT) guidelines (Collins 2016).

2.2.3. Breeding birds

The assessment of the potential of the site for breeding birds was based on the suitability of the habitats present, evidence of nesting such as old or currently active nests, and the presence of bird species that may potentially nest within the available habitat.

2.2.4. Invertebrates

An assessment was made of the site for its potential value to support diverse communities of terrestrial invertebrates, or any protected, notable or BAP species (that have Action Plans under the UK Biodiversity Action Plan). The assessment was made based on the presence of suitable habitat features. These features include, for example, an abundance of dead wood, the presence of diverse plant communities, the presence of varied woodland structure and sunny woodland edges with a diverse flora, presence of ponds and water courses and the presence of free draining soil exposures. During the Phase 1 habitat survey no attempt was made to comprehensively identify the range of species present, though where encountered, *ad hoc* sightings were noted.

3. RESULTS

3.1. Walkover Survey

The site is dominated by mixed semi-natural woodland with an understorey of scrub and scattered bracken, interspersed with small areas of amenity grassland and acid grassland.

The vegetation within the site is described here in general terms using Phase 1 habitat survey terminology and referring to dominant, characteristic and other noteworthy species in each vegetation type within the survey area.

The main habitat types on site consist of:

- mixed semi-natural woodland;
- amenity grassland;
- tall ruderal; and
- scrub.

Only a summary of the habitat types is provided below, as very detailed descriptions were provided in the previous management plan (Kernohan 2016). A list of the botanical species identified during the walkover survey is provided in Appendix 1.

3.1.1. Mixed semi-natural woodland

Mixed semi-natural woodland is the most extensive habitat on site (compartments 1, 2, 4, 7 – 10), with varying dominance between sweet chestnut, oak *Quercus robur*, silver birch *Betula pendula*, beech *Fagus sylvatica* and rowan *Sorbus aucuparia*, with large mature scots pine scattered throughout. Occasional copper beech *Fagus sylvatica purpurea*, yew *Taxus baccata* and sycamore *Acer pseudoplatanus* are also present.

The understorey consists of young broadleaf tree growth and regeneration, with patches of holly *Ilex aquifolium* and laurel *Prunus laurocerasus*. Rhododendron *Rhododendron ponticum* is present on site, but at very low numbers.

The ground cover varies between dense bramble, nettle and/or ivy *Hedera helix*, to clear areas of dead leaf litter. Within the glades and rides, where bramble has not become dominant, more herb species are present including germander speedwell *Veronica chamaedrys*, creeping buttercup *Ranunculus repens*, garlic mustard *Alliaria petiolata* and greater stitchwort *Stellaria holostea*.

A number of trees have been felled creating lighter glades and paths, with a couple of monoliths and limbs retained.

3.1.2. Amenity grassland

The largest opening in the canopy is in the area where there used to be a play area (compartment 3).

There were 16 species recorded, all common to mown, managed grassland including common grasses, annual meadow grass *Poa annua*, yorkshire-fog *Holcus lanatus* and perennial rye-grass *Lolium perenne*; as well as common herbs such as dove's-foot crane's-bill *Geranium molle*, ribwort plantain *Plantago lanceolata*, greater plantain *Plantago major*, creeping buttercup *Ranunculus repens*, broad-leaved dock *Rumex obtusifolius*, and dandelion *Taraxacum officinale* agg.. The standard sweet chestnut within the amenity grassland has a well spread canopy due to the lack of immediate competitors and abundance of direct light.

The area previously identified as semi-improved acid grassland which was thought to contain the remnant heath species was becoming covered with bramble and bracken (compartment 6).

3.1.3. **Scrub and Tall ruderal**

There are areas of scrub, dominated by bramble, and tall ruderal, namely nettle, scattered throughout the site wherever light is able to penetrate. The most extensive of these is along the northern boundary of the site. Some grasses such as Yorkshire fog and Annual meadow grass, and herbs including wood avens *Geum urbanum* and cleavers *Galium aparine* are also present.

3.2. **Protected / Notable Species**

Based on the Phase 1 habitat survey the site is considered to contain habitat potentially suitable for the following species:

- Badger;
- bats;
- breeding birds; and
- invertebrates.

3.2.1. **Badger**

No evidence of badger *Meles meles* activity (sett, latrines or foraging) was recorded at the site during the walkover survey.

The woodland offers suitable foraging habitat for badgers. The banks along the boundary offer sub-optimal areas for sett digging.

3.2.2. **Bats**

No evidence for the presence of bats was recorded during the walkover survey.

Some trees on site were identified as having potential roost features such as splits, cracks and holes suitable for roosting bats. If works are required on these trees, further surveys undertaken by a suitably qualified ecologist will be required.

The site is suitable for foraging and commuting bats, particularly the sheltered openings and rides.

All bat species are listed on Schedule 5 of the Wildlife & Countryside Act 1981, and protected under Part 1 Section 9, meaning it is an offence to:

- Intentionally or recklessly kill, injure or take a bat
- Intentionally or recklessly damage or destroy any structure or place used for shelter or protection
- Disturb a bat while it is occupying a structure or place which it uses for shelter or protection
- Obstruct access to any structure or place used for shelter or protection
- Possess or control any live or dead bat, or any part of, or anything derived from a bat

In addition, all bat species are listed under Schedule 2 of the Conservation of Habitats & Species Regulations (Amendment) (EU Exit) 2019, meaning it is an offence to:

- Deliberately capture, injure or kill a bat
- Deliberately disturb a bat; in particular that is likely to impair their ability:
 - (i) To survive, to breed or reproduce, or to rear or nurture their young; or
 - (ii) In the case of hibernating or migratory species, to hibernate or migrate;
- To affect significantly the local distribution or abundance of the species to which they belong
- Damage or destroy a breeding site or resting place of a bat
- Be in possession of, or to control a bat

- Transport, sell, exchange, or offer for sale or exchange, any live or dead bat, or part of.

All bat roosting sites receive legal protection even when bats are not present.

3.2.3. Breeding birds

No evidence of nesting birds was found on the site. A number of birds were seen and heard whilst on site including blue tit *Cyanistes caeruleus*, great tit *Parus major*, coal tit *Periparus ater*, song thrush *Turdus philomelos*, blackbird *Turdus merula* and robin *Erithacus rubecula*.

The trees and shrub layers offer suitable habitat for nesting birds, as well as a food source including invertebrates, berries and seeds.

3.2.4. Invertebrates

A few common invertebrates were recorded during the walkover survey including speckled wood *Pararge aegeria* and large white *Pieris brassicae* butterflies, and white/buff-tailed bumblebee *Bombus* species, around the open glades and paths.

The dark and dense canopy of the woodland will restrict the species it can support, as it will affect the light and temperature penetrating to the ground and therefore vegetation growth; the glades and rides will be able to support a more diverse range of the species as they will have a more varied vegetation structure providing food and shelter, and links to adjacent habitat.

3.2.5. Other mammals

Low numbers (2 to 3) deer have been observed on site. No evidence of deer browsing was observed during the walkover survey.

A wood mouse *Apodemus sylvaticus* was observed foraging amongst the understorey flora along the northern boundary of the site during the walkover survey. The bramble in particular provides a valuable food source for small mammals, as well as shelter from predators and disturbance by people and dogs.

3.2.6. Invasive non-native species

There is known to be Japanese knotweed *Fallopia japonica* present by the telephone exchange on Glashyers Hill although this was not seen during the survey. This is being monitored and treated.

Management of cherry laurel *Prunus laurocerasus*, which is throughout the understorey, is also being undertaken.

3.3. Review of progress

Whilst progress has been made on some of the actions recommended in the 2016 report, others have not yet been implemented. A full review is provided in Table 1.

In summary, larger tree works have occurred on site, including the retention of monoliths and logs/dead wood to provide habitat for wildlife. A number of bat and bird boxes have been erected that can be observed around the common. Bramble and bracken has been managed, but will need on-going management to ensure this does not increase in extent or stop a more diverse ground flora developing. The ground flora still does not contain many heathland species as reported by the previous HBIC surveys, management of the bramble in particular should help this develop if the seeds are still dormant in the soil.

Further advice is provided in the management plan update in section 4.

Table 1. Reporting against biodiversity actions from previous management advice of 2016 to 2021

OBJECTIVE	ACTION	OUTCOME	PROGRESS 2021
Expansion and creation of clearings and rides	<p>Monitor and removal of unsafe dead sweet chestnut trees (leave some trunks to create monoliths). Monitor the response to increased light levels</p> <p>Phased thinning of the Scot's pine trees, starting with those adjacent to glades and openings and within coppice areas</p> <p>Raking and removing some leaf litter and dead material to allow light to penetrate to the soil level</p> <p>Clear scrub to maintain and extend existing clearings and rides</p> <p>Removal of pine, birch and sycamore saplings and regeneration to maintain openings</p> <p>Manage bramble, bracken and holly, so that they do not expand to dominate, maintaining some dense patches for cover.</p>	<p>Increased light to ground and understorey encouraging growth of woodland ground flora and heathland species</p> <p>Adequate light to young coppice for vigorous growth</p> <p>Food source and shelter for birds, invertebrates and bats</p>	<p>Monoliths present and evidence of clearance.</p> <p>More area with light penetrating to ground, allowing ground flora and shrub layer to develop resulting in more varied structure with some flowering species.</p> <p>Bramble, bracken and holly patches present, some encroachment particularly on path to north east of common. Needs to be monitored and managed as rotational mosaic.</p>
Control of invasive, non-native species	Removal of non-native and invasive tree and shrub species. Including laurel, Leyland cypress and rhododendron that pose a threat to the naturalness of the Common	Invasive, non-native species removed from site	Some laurel present but not extensive. Only a few rhododendron plants present.
Increased species diversity and structure	Coppicing of suitable trees e.g. sweet chestnut and hazel	<p>More diverse habitat structure</p> <p>Provision of bird nesting and potential dormouse habitat</p>	Not observed during walkover
Create showpiece feature trees	Clear space around selected tree specimens: multi stemmed rowan, beech, pine, oak, sweet chestnut	<p>Increased light and reduced crowding of the specimens will allow a more spreading growth habit and healthy tree</p> <p>Local community involvement in the care of attractive tree specimens</p>	Some clearance has been undertaken but needs to be monitored for new saplings

OBJECTIVE	ACTION	OUTCOME	PROGRESS 2021
Thinning of saplings and young regrowth	Clearance of young sapling trees, leaving a few selected trees	<p>Reduced competition for light and space for ground flora</p> <p>Increased structural and species diversity</p>	<p>On-going management required.</p> <p>Some areas with very little growth whilst others need some thinning.</p>
Increased habitat for invertebrates	Identify and retain suitable standing deadwood as monoliths	Retention of trees as habitat for invertebrates, birds and bats	Monoliths present
	Create habitat piles using dead wood	Habitat piles provide refuges for invertebrates and amphibians	Deadwood present
Community Engagement	<p>Work with volunteers and contractors</p> <p>Active practical conservation work party</p>	<p>Engagement with local volunteers who value the site, offer knowledge and regularly undertake practical conservation tasks</p> <p>Links with trusted contractors to assist with larger tasks</p> <p>Foster appreciation of biodiversity actions</p>	<p>Contractors employed to undertake felling of large trees</p> <p>Information board by grassland</p>
	Develop volunteer survey skills to monitor site	<p>Long-term commitment to site and sense of ownership</p> <p>Skill development opportunities for volunteers</p> <p>Records contributing to local and national databases</p>	Unknown

Management Plan Review & Update 2021: Arford Common

OBJECTIVE	ACTION	OUTCOME	PROGRESS 2021
	Involvement with local school and interest groups e.g. brownies and cubs	Engagement with local community Promotion of site	Unknown
	Removal of fly-tipped furniture	Further fly-tipping is discouraged Increased pride in the site	No litter present on site
Ensure visitor safety	Check trees periodically on a zoned basis according to use level. These should be defined by someone who knows the site and its use well Carry out checks in high risk zones by a trained arboriculturist annually	Identify and reduce the risk of injury due to falling dead or dying trees or branches	Very little visible dead wood present on trees.
	Encourage visitors to take their dog mess home for disposal	No dog waste on site More attractive and safe environment for all users	No visible evidence of dog mess
Promote importance of Arford common	On-site notice boards with maps and descriptions of history and wildlife Guided walks about the history and wildlife of the common	Foster interest in the site Increased engagement with local community	Information board present by grassland
	A website or group page listing volunteer work parties and management being undertaken Temporary notices on site	Opportunities for local residents to get involved Increased understanding and engagement with local residents	Unknown
Provision of more space for wildlife	Installation of bird boxes on trees	Increased nesting opportunities for birds	Numerous boxes observed around the site
	Installation of bat boxes on trees	Increased roosting provision for bats	Numerous boxes observed around the site

4. MANAGEMENT PLAN

An overview of the management recommendations for the habitat types found at Arford Common are detailed below in sections 4.1 to 4.4, many of which are on-going recommendations from previous surveys and plans; with a tabular management plan in section 4.5. More detailed works plans are included in appendices 2 & 3.

The management plan is divided into 5 main columns; Objective, Action, Outcome, Targets and Reporting Method. Objectives are the overall aim of undertaking the action, actions are the key activities that need to be undertaken, outcomes are the benefits to biodiversity that will be achieved, the targets are the steps that need to be fulfilled by the end of the stated years, and the reporting method identifies how progress towards the final objective is going to be monitored.

Some of the actions listed are already underway; others are potential projects, while others are aspirational, they represent ideal actions given sufficient resources and time.

The management plan is a working document, and therefore should be regularly reviewed within the appropriate Parish Council meetings to ensure it remains relevant to the site.

4.1. Woodland

The creation and retention of glades and rides will benefit most woodland species, botanical and animal, as well as encourage heathland vegetation recovery. This would focus on the current open areas of the grasslands and connecting habitats such as areas of tree felling and the footpaths. Dead material (leaf litter) should be cleared to allow light to soil level.).

Thinning of trees to ensure varied age range and structure, and allow trees space to grow. Before works, trees for removal should be identified (e.g. small diameter, close growing trees), local residents consulted regarding reasons and locations of felling, felling contractors assessments made as to appropriate method of takedown and relevant tree work licences obtained from the Forestry Commission.

Laurel, holly and bramble, can become dense and dominant, limiting light and structural diversity. Continue to remove non-native laurel and to manage holly and bramble to maintain some dense patches, but not become dominant.

Monitoring and treatment of non-native invasive rhododendron will need to be undertaken to stop it spreading and out-competing the native flora present. The GB Non-native species secretariat 2016 factsheet on Rhododendron provides information about the species (<http://www.nonnativespecies.org/factsheet/factsheet.cfm?speciesId=3004>), and the Forestry Commission 'Managing and controlling invasive rhododendron' practice guide (<https://www.forestryresearch.gov.uk/documents/2557/fcpg017.pdf>) provides practical advice on management.

4.2. Grassland

The amenity grassland could be maintained for use as an open recreational area. The feature sweet chestnut could be a source of learning for school visits, for example, to estimate tree age.

Encroachment by adjacent scrub should be monitored and cut back on a rotational basis.

The other area of grassland thought to have remnant heath needs to be cut back and managed to stop the growth of less desirable species such as bramble scrub.

4.3. Scrub and Tall ruderal

This habitat provides a valuable source of food and shelter, however it can become dominant and spread. Therefore it should be managed on a rotational basis. This area could be maintained as low shrub and ground flora. By clearing the area every few years this would prevent the more persistent perennials e.g. bramble and gorse from dominating.

4.4. General advice

Japanese knotweed spreads readily from plant fragments and is tenacious, requiring repeated licenced treatment to eradicate. There is known to be Japanese knotweed present by the telephone exchange on Glashyers Hill, which is undergoing treatment. No potentially contaminated plant or soil material should be taken off site and the treatment process should be continued. Invasive non-native species may appear innocent looking garden escapes, but may spread rapidly to exclude other plants. Any presence should be recorded and disposed of after seeking advice.

If bonfires are used to reduce the excess material from habitat clearance works, ensure the bonfire is checked thoroughly for wildlife before lighting. Choose a site where there will be minimal damage to the ground flora and/or surrounding trees, and that can be used repeatedly. A method used to limit the damage to the ground and to contain the fire debris, is to build the fire on top of sheets of corrugated metal; by piling two or three sheets, positioned at ninety degrees to each other.

Any herbicides used should be applied according to the manufacturer's instructions and directly applied to cut stumps. The application needs to be undertaken by a qualified (NPTC PA1 and PA6) person.

Any wildlife seen on site should be recorded. This can be done using Living Record (www.livingrecord.net), an online system for regular biological recorders. You can view your own records as well as shared distribution maps and download your records as an excel spreadsheet. All records are verified by the relevant county recorder and sent to HBIC to become part of the referenced county database.

The common takes the form of an island surrounded by houses. Neighbouring residences could bear this in mind within their own private gardens, creating corridors for movement along hedgerows between the site and beyond the ring of houses, putting in holes at the base of fences to allow movement of wildlife particularly hedgehogs (www.hedgehogstreet.org) and choosing wildlife friendly planting such as night flowering species that attract moths, which provide a food source for bats.

4.5. Management plan

OBJECTIVE	ACTION	OUTCOME	TARGET (YEARS)			REPORTING METHOD
			1- 2	3 – 5	6 – 10	
Expansion and creation of clearings and rides	<p>Monitor and removal of unsafe trees (leave some trunks to create monoliths). Monitor the response to increased light levels</p> <p>Phased thinning of close growing, small diameter trees</p> <p>Raking and removing some leaf litter and dead material to allow light to penetrate to the soil level</p> <p>Clear scrub to maintain and extend existing clearings and rides</p> <p>Removal of pine, birch and sycamore saplings and regeneration to maintain openings</p> <p>Manage bramble, bracken and holly, so that they do not expand to dominate or encroach on open areas, maintaining some dense patches for cover.</p>	<p>Increased light to ground and understorey encouraging growth of woodland ground flora and heathland species</p> <p>Adequate light to young coppice for vigorous growth</p> <p>Food source and shelter for birds, invertebrates and bats</p>	<p>Dangerous tree assessment, removal if required</p> <p>Alternate cutting of bramble along edges of footpaths</p> <p>Management of scrub but some dense bramble and holly patches remain (mosaic cutting regime)</p>	<p>Dangerous tree assessment, removal if required</p> <p>Thinning of close growing, small trees.</p> <p>Area of open clearings and rides has increased</p> <p>Ground flora present in thinned areas, indicated by 2-3 positive indicator species for grassland and/or heathland</p>	<p>Dangerous tree assessment, removal if required</p> <p>Thinning of close growing, small trees.</p> <p>Open clearings are being maintained</p>	<p>Maintain records of tree works and report to relevant Parish meetings</p> <p>Map extent of the clearings and glades</p> <p>Number of positive indicators within the ground flora</p>
Control of invasive, non-native species	<p>Removal of non-native and invasive tree and shrub species. Including laurel and rhododendron that pose a threat to the naturalness of the Common</p> <p>Monitor for encroachment of bamboo from neighbours</p>	<p>Invasive, non-native species removed from site</p>	<p>Consultation with local residents regarding removal of rhododendron</p> <p>Continued removal of laurel</p> <p>Monitoring of bamboo</p>	<p>Remove Rhododendron (assumed appropriate following consultation)</p> <p>Monitoring of bamboo</p>	<p>Absence or continued reduction in non-native and invasive tree and shrub species</p> <p>Monitoring of bamboo</p>	<p>Monitoring by warden and reporting to the Parish Council at relevant meeting</p>

Management Plan Review & Update 2021: Arford Common

OBJECTIVE	ACTION	OUTCOME	TARGET (YEARS)			REPORTING METHOD
			1- 2	3 – 5	6 – 10	
Increased species diversity and structure	Coppicing and thinning of suitable trees e.g. sweet chestnut and hazel	More diverse habitat structure Provision of bird nesting and potential dormouse habitat	One area of coppice has been cut	Second area of coppice is planned and implemented Thinning of small diameter, close growing, tall trees e.g. silver birch	Continuing hazel coppice in rotation is planned (8 years optimal for fruiting)	Warden reporting to the Parish Council at relevant meeting
Maintain showpiece feature trees	Clear/maintain space around selected tree specimens: multi stemmed rowan, beech, pine, oak, sweet chestnut	Increased light and reduced crowding of the specimens will allow a more spreading growth habit and healthy tree	Maintain open uncrowded area around feature trees	Maintain open uncrowded area around feature trees	Maintain open uncrowded area around feature trees	Survey of the condition of feature trees Warden reporting to the Parish Council at relevant meeting
Thinning of saplings and young regrowth	Clearance of young sapling trees, leaving a few selected trees	Reduced competition for light and space for ground flora Increased structural and species diversity	Target thinning areas identified and programmed into work party schedule Thinning undertaken	Continued thinning of saplings	Sapling growth is monitored and clearance carried out as required	Evidence of sapling control within the work party schedule
Increased habitat for invertebrates	Retain suitable standing deadwood as monoliths, and felled tree sections on site.	Retention of trees as habitat for invertebrates, birds and bats	Identify further potential monoliths as and when tree works are required. Additional holes drilled to create cavities and stimulate rotting if required	Identify further potential monoliths as and when tree works are required. Additional holes drilled to create cavities and stimulate rotting if required	Identify further potential monoliths as and when tree works are required. Additional holes drilled to create cavities and stimulate rotting if required	Number of monoliths. Evidence of rot and woodpecker foraging holes
	Create habitat piles using dead wood	Habitat piles provide refuges for invertebrates and amphibians		Lying dead wood is present, loosely fallen and in piles, at different stages of decay		Presence of lying deadwood

OBJECTIVE	ACTION	OUTCOME	TARGET (YEARS)			REPORTING METHOD
			1- 2	3 – 5	6 – 10	
	Retain scrub as food source for invertebrates	Valuable food source and shelter for a range of invertebrates including woodland butterflies	Manage scrub on rotational basis to ensure varied age range but stop encroachment in to open habitats	Manage scrub on rotational basis to ensure varied age range but stop encroachment in to open habitats	Manage scrub on rotational basis to ensure varied age range but stop encroachment in to open habitats	Evidence of management within work party schedule. Butterfly sightings recorded on Living Record
Community Engagement	Develop volunteer survey skills to monitor site	Long-term commitment to site and sense of ownership Skill development opportunities for volunteers Records contributing to local and national databases	Use 'Living Record' to record species on site and contribute to county records Undertake bat walk Create and implement butterfly transect following Butterfly Conservation methodology	Annual field survey carried out using Bat Conservation Trust National Bat Monitoring Programme methodology Set-up butterfly transect on UK Butterfly Monitoring Scheme website and continue monitoring	Annual species surveys and monitoring are carried out according to interests and relevance to site Bat box check undertaken by licenced individual	Biological Records are being submitted and reaching the relevant VC recorder
	Involvement with local school and interest groups e.g. brownies and cubs	Engagement with local community Promotion of site	Local schools have been contacted regarding their possible use of the site	Successful visit from a local school	Two further visits planned and undertaken with local schools or interest groups	Evidence of local school /interest group involvement
Ensure visitor safety	Check trees periodically on a zoned basis according to use level. These should be defined by someone who knows the site and its use well Carry out checks in high risk zones by a trained arboriculturist annually	Identify and reduce the risk of injury due to falling dead or dying trees or branches	A map of tree zones is prepared Inspections are being made as appropriate	Inspections are being made as appropriate	Inspections are being made as appropriate	Trees are checked and action is taken as appropriate accordingly

Management Plan Review & Update 2021: Arford Common

OBJECTIVE	ACTION	OUTCOME	TARGET (YEARS)			REPORTING METHOD
			1- 2	3 – 5	6 – 10	
	Encourage visitors to take their dog mess home for disposal	No dog waste on site More attractive and safe environment for all users	Signage regarding removal of dog waste Dog mess is taken home for disposal by owners			Report from warden to the appropriate Parish Council meeting regarding levels of dog mess on site
Promote importance of Arford common	On-site notice boards with maps and descriptions of history and wildlife	Foster interest in the site	Regular updates put up on noticeboard	Undertake a wildlife and/or history walk	Undertake a BioBlitz	Information board on site
	Guided walks about the history and wildlife of the common	Increased engagement with local community				Attendance on history or wildlife walks
	A website or group page listing management being undertaken Temporary notices on site	Increased understanding and engagement with local residents	Create website and/or facebook page Create notices about specific management tasks as and when required, with links to website/facebook page for further info	Online information sources are kept up to date		Statistics regarding hits on the online sites or number of members to interest groups
Provision of more space for wildlife	Maintenance / replacement of bird boxes on trees	Increased nesting opportunities for birds	Maintain and check use of boxes	Maintain and check use of boxes Consider moving if not being used.	Maintain and check use of boxes Replace any boxes that are damaged	Number of boxes sited Submitted biological records of nest box use
	Maintenance / replacement of bat boxes on trees	Increased roosting provision for bats	Maintain and check use of boxes	Maintain and check use of boxes Consider moving if not being used	Maintain and check use of boxes Replace any boxes that are damaged	Bat box check by licenced bat ecologist

5. SUMMARY

Overall the management of Arford Common is creating a range of environments within the woodland and open spaces suitable for birds, small mammals and invertebrates, namely butterflies, and is a place for people to enjoy.

The trees works that have been undertaken on site have allowed more light to reach the ground, promoting the growth of different woodland layers and creating micro-climates within the woodland.

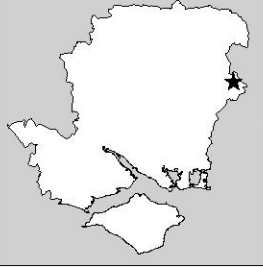
On-going management of the trees, through removal of hazardous trees and thinning of saplings and young growth, and the management of scrub and tall ruderals, namely bramble and nettle, will maintain and enhance the species diversity and help increase abundance.

6. REFERENCES

- **GB Non-native species secretariat (GBNNS) (2016)** *Rhododendron, Rhododendron ponticum*. Available online at: <http://www.nonnativespecies.org/factsheet/factsheet.cfm?speciesId=3004> [Accessed 13/11/2016]
- **Kernohan, R. (2016)**. *Management Plan Review & Update 2016. Arford Common, Headley Parish Council*. Arcadian Ecology & Consulting Ltd, Curdridge.

MAPS

Location within county:



Map 1. Site Location

Arford Common

Scale 1:40000



 Site Boundary



N Map reproduced by Hampshire and Isle of Wight Wildlife Trust. Crown Copyright 2021. OS 100015632.
Unauthorised reproduction infringes Copyright and may lead to prosecution or civil proceedings. British Crown and MarineFind Ltd. All rights reserved.
BAP Priority habitat, notable species and SINC data supplied by the Hampshire Biodiversity Information Centre on behalf of the HBIC Partnership.
Aerial photography courtesy of GetMapping plc. Produced on 2 June 2021 by Sarah Jackson
For enquiries relating to GIS data contact Catherine McGuire, email Catherine.McGuire@hwwt.org.uk, tel: 01489 774455.

Location within county:



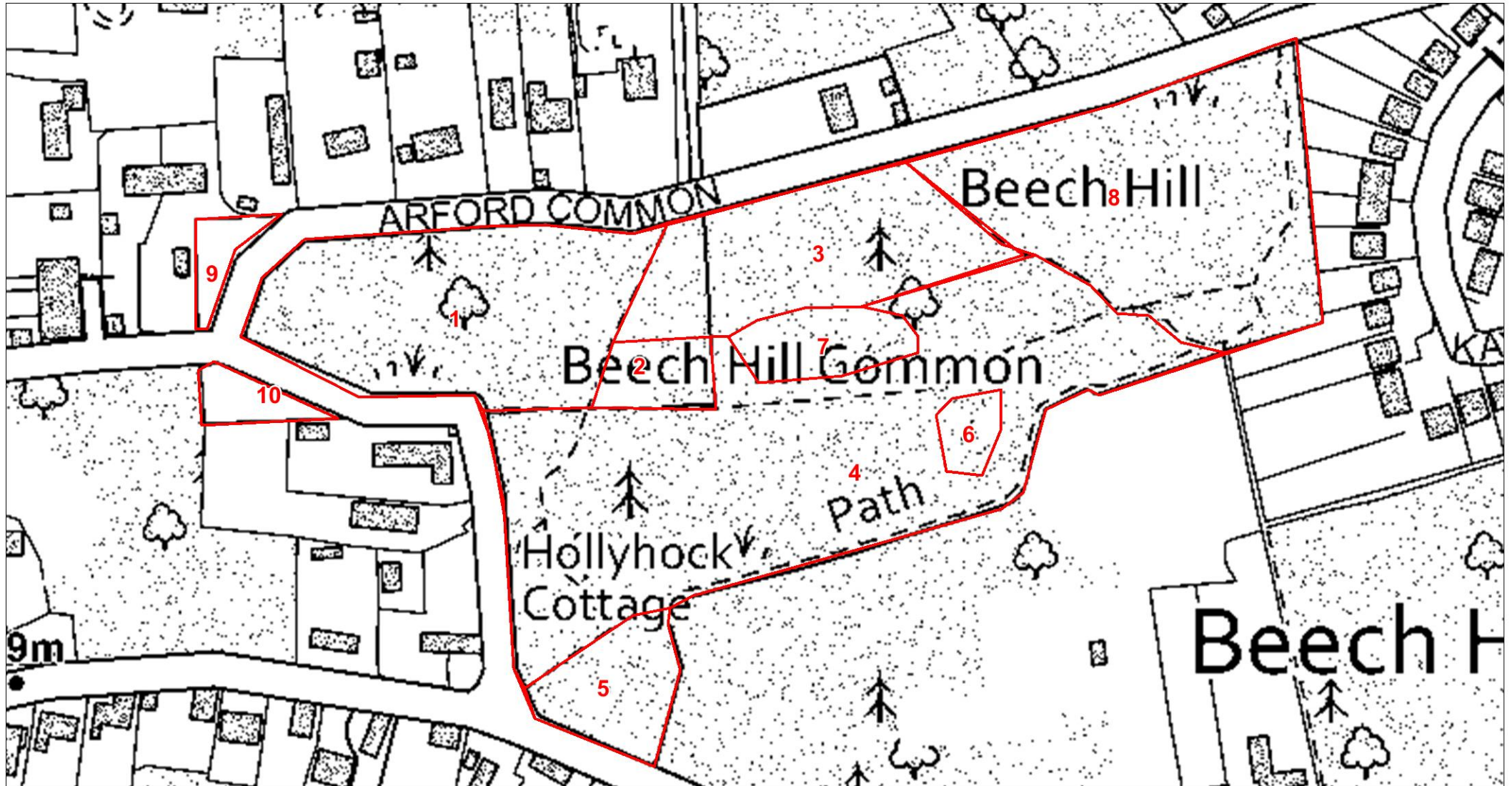
Map 2. Management Compartments

Arford Common

Scale 1:1800



 Compartment Boundary



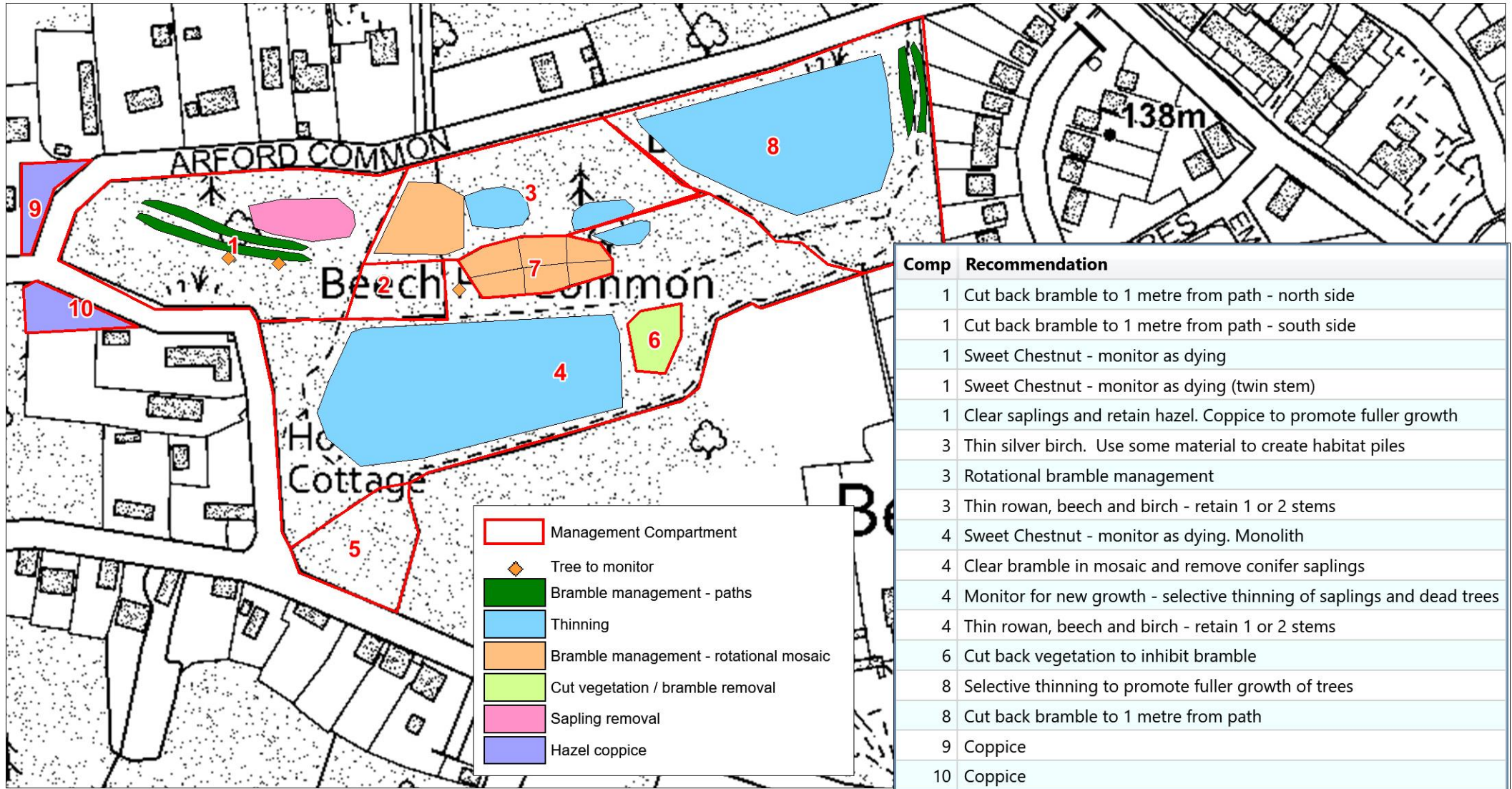
Location within county:



Map 3. Recommended Actions - Overview

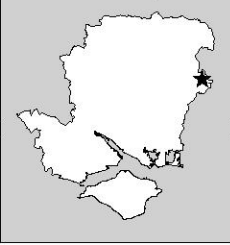
Arford Common

Scale 1:2200



Comp	Recommendation
1	Cut back bramble to 1 metre from path - north side
1	Cut back bramble to 1 metre from path - south side
1	Sweet Chestnut - monitor as dying
1	Sweet Chestnut - monitor as dying (twin stem)
1	Clear saplings and retain hazel. Coppice to promote fuller growth
3	Thin silver birch. Use some material to create habitat piles
3	Rotational bramble management
3	Thin rowan, beech and birch - retain 1 or 2 stems
4	Sweet Chestnut - monitor as dying. Monolith
4	Clear bramble in mosaic and remove conifer saplings
4	Monitor for new growth - selective thinning of saplings and dead trees
4	Thin rowan, beech and birch - retain 1 or 2 stems
6	Cut back vegetation to inhibit bramble
8	Selective thinning to promote fuller growth of trees
8	Cut back bramble to 1 metre from path
9	Coppice
10	Coppice

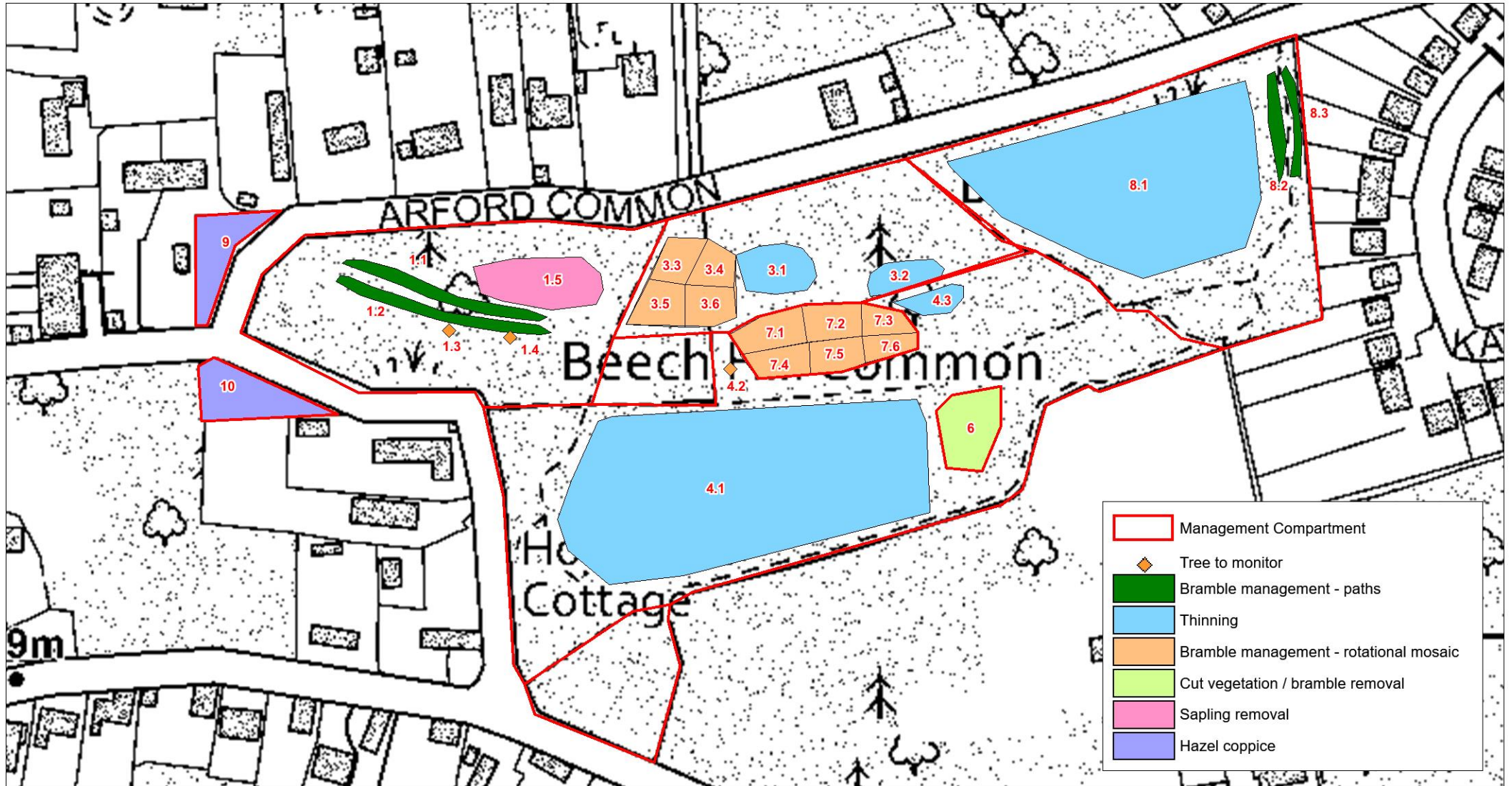
Location within county:



Map 4. Recommended Actions - Detail

Arford Common

Scale 1:1800



Map reproduced by Hampshire and Isle of Wight Wildlife Trust. Crown Copyright 2021. OS 100015632. Unauthorised reproduction infringes Copyright and may lead to prosecution or civil proceedings. British Crown and MarineFind Ltd. All rights reserved. BAP Priority habitat, notable species and SINC data supplied by the Hampshire Biodiversity Information Centre on behalf of the HBIC Partnership. Aerial photography courtesy of GetMapping plc. Produced on 9 June 2021 by Sarah Jackson. For enquiries relating to GIS data contact Catherine McGuire, email Catherine.McGuire@hiwwt.org.uk, tel: 01489 774455.

APPENDICES

Appendix 1:
Botanical species list compiled during the walkover survey

Appendix 1. Botanical species list compiled during the walkover survey

A qualitative measure of abundance based on DAFOR scale for the compartments was also undertaken. The DAFOR scale provides an assessment of the abundance of particular species. D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare. Species can also be Locally Dominant (LD) or Locally Abundant (LA) meaning there is a particularly dense patch but it does not extend to an entire area, for example a nettle bed.

NB. The species recorded represent the key species found within each habitat type, and is not a complete list of all the species present.

<i>Taxon</i>	Common Name	Compartments 1 & 2	Compartment 3	Compartments 4, 7 - 10	Compartment	Compartment 6
Grasses						
<i>Arrhenatherum elatius</i>	false oat-grass				O	
<i>Dactylis glomerata</i>	cock's-foot		O			
<i>Festuca rubra</i> agg.	red fescue		O			O
<i>Holcus lanatus</i>	yorkshire-fog	O				O
<i>Lolium perenne</i>	perennial rye-grass		O			
<i>Poa annua</i>	annual meadow grass		D		A	F
Herbs						
<i>Alliaria petiolata</i>	garlic mustard				R	
<i>Galium aparine</i>	cleavers				R	R
<i>Geranium molle</i>	dove's-foot crane's-bill		R			
<i>Geranium robertianum</i>	herb robert	R		R	O	
<i>Geum urbanum</i>	wood avens	O	R	R		
<i>Iris pseudacorus</i>	yellow flag iris	R				
<i>Lonicera periclymenum</i>	honeysuckle	R		R		
<i>Plantago lanceolata</i>	ribwort plantain		R			
<i>Plantago major</i>	greater plantain		O			
<i>Pteridium aquilinum</i>	bracken	O		O	R	O
<i>Ranunculus repens</i>	creeping buttercup		R		O	
<i>Rubus fruticosus</i>	bramble	LA		F	F	F
<i>Rumex crispus</i>	curled dock		R			
<i>Rumex obtusifolius</i>	broad-leaved dock		O			
<i>Stellaria holostea</i>	greater stitchwort				R	
<i>Taraxacum</i> agg.	dandelion agg.		O		R	
<i>Urtica dioica</i>	nettle (common)	LA	LA		R	
<i>Veronica chamaedrys</i>	germander speedwell		R		F	
Woody species						
<i>Acer pseudoplatanus</i>	sycamore	R		R		
<i>Betula</i> spp.	silver birch	F		F		R
<i>Castanea sativa</i>	sweet chestnut		R	O		
<i>Corylus avellana</i>	hazel	R		O		
<i>Cupressus</i> sp.	conifer	R		O		
<i>Fagus sylvatica</i>	beech	F		F		

<i>Fagus sylvatica purpurea</i>	copper beech	R		R		
<i>Hedera helix</i>	ivy	R		LA		
<i>Ilex aquifolium</i>	holly	O		F		
<i>Pinus sylvestris</i>	scots pine	F		F		
<i>Prunus laurocerasus</i>	laurel	O		O		
<i>Quercus robur</i>	pedunculate oak	O				
<i>Rhododendron ponticum</i>	rhododendron			R		R
<i>Salix sp</i>	willow species		R			
<i>Sorbus aucuparia</i>	rowan	R		O		
<i>Taxus baccata</i>	yew	R		R		
<i>Ulex europaeus</i>	gorse (common)					

Appendix 2:
Annual Work Plan

Appendix 2: Annual Work Plan

Operational Objective	Activity	Month											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Expansion and creation of clearings and rides	Phased thinning of trees	X	X								X	X	X
	Rotational scrub management	X	X								X	X	X
	Sapling removal	X	X								X	X	X
	Hazel coppice	X	X								X	X	X
Retain open habitats	Cut amenity area				X				X				
	Cut area of remnant heath to encourage heathland species and stop bramble encroachment				X				X				
Control of invasive, non-native species	Remove non-native invasive species	X	X								X	X	X
	Monitor for non-native invasive species	X	X	X	X	X	X	X	X	X	X	X	X
Maintain showpiece feature trees	Clear saplings from around feature trees	X	X								X	X	X
Increased habitat for invertebrates	Identify suitable trees to become monoliths	X	X	X	X	X	X	X	X	X	X	X	X
	Create habitat piles from material generated from tree works	X	X								X	X	X
Community Engagement	Volunteer surveys - butterflies			X	X	X	X	X	X	X	X		
Ensure visitor safety	Dangerous tree assessment	X	X	X	X	X	X	X	X	X	X	X	X
Promote importance of Arford common	Regularly update on-site information board	X	X	X	X	X	X	X	X	X	X	X	X
Provision of	Maintain and replace bird boxes	X	X								X	X	X

Appendix 3:
Long Term Work Programme

Appendix 3. Long Term Work Programme

Operational Objective	Activity	Year													
		1	2	3	4	5	6	7	8	9	10				
Expansion and creation of clearings and rides	Phased thinning of trees in compartment 3 – sub-compartment 3.1 (thin silver birch. Use some material to create habitat piles)		X												
	Phased thinning of trees in compartment 3 - sub-compartment 3.2 (thin rowan, beech and birch – retain 1 or 2 stems)		X												
	Phased thinning of trees in compartment 4 – sub-compartment 4.1 (monitor for new growth, selective thinning of saplings and removal of dead trees)					X								X	
	Phased thinning of trees in compartment compartment 4 – sub-compartment 4.3 (thin rowan, beech and birch – retain 1 or 2 stems)		X												
	Phased thinning of trees in compartment 8 (selective thinning of saplings and removal of dead trees)					X								X	
	Rotational scrub management in compartment 3 – sub-compartment 3.3					X								X	
	Rotational scrub management in compartment 3 – sub-compartment 3.4		X						X						
	Rotational scrub management in compartment 3 – sub-compartment 3.5	X						X							
	Rotational scrub management in compartment 3 – sub-compartment 3.6				X							X			
	Rotational scrub management in compartment 7 – sub-compartment 7.1	X							X						
	Rotational scrub management in compartment 7 – sub-compartment 7.2					X									
	Rotational scrub management in compartment 7 – sub-compartment 7.3			X								X			
	Rotational scrub management in compartment 7 – sub-compartment 7.4				X									X	
	Rotational scrub management in compartment 7 – sub-compartment 7.5		X								X				
	Rotational scrub management in compartment 7 – sub-compartment 7.6							X							
Scrub removal (bramble) to 1 metre along path – compartment 1 – sub-compartment 1.1 (north)			X						X						

Operational Objective	Activity	Year										
		1	2	3	4	5	6	7	8	9	10	
Community Engagement	Volunteer surveys - butterflies	X	X	X	X	X	X	X	X	X	X	X
Ensure visitor safety	Dangerous tree assessment	X	X	X	X	X	X	X	X	X	X	X
	Monitor and remove/monolith sweet chestnuts (1.3, 1.4 & 4.2)	X	X	X	X	X	X	X	X	X	X	X
Promote importance of Arford common	Regularly update on-site information board	X	X	X	X	X	X	X	X	X	X	X
	Hold a guided walk or BioBlitz	X			X			X			X	
Provision of more space for wildlife	Maintain and replace bird boxes			X			X			X		
	Maintain and replace bat boxes			X			X			X		