MANAGEMENT PLAN

for

NAPHILL COMMON

by

FRIENDS of NAPHILL COMMON

2014

CONTENTS

Introduction

Naphill Common is a fantastic natural asset on the doorstep of the village in the heart of the Chilterns Area of Outstanding Natural Beauty. At 63 hectares (155 acres) it is one of the largest commons in the Chilterns and, together with the adjoining Hughenden Estate, Downley Common and Bradenham estate, is at the centre of one of the most extensive tracts of high quality countryside in the south of England. It is so important that it has been designated as a Site of Special Scientific Interest (SSSI) and as a Special Area of Conservation (SAC).

Today the common is covered in mature woodland, mostly of beech, oak, holly and yew. Not so long ago it was more open with small numbers of old and large beech and oak trees, gorse and, the now rarer, juniper. As a reminder of the centuries when commoners grazed their animals on the common there are still patches of grassland and several ponds.

In 1951 the common was declared an SSSI Grade 1 because, it was claimed, there had been little or no silvicultural management: the Common had never been planted or felled, but was self-generated woodland. (This was almost certainly mistaken as far as felling is concerned.) In 1994 English Nature (now Natural England), who were responsible for SSSIs, decided to allow felling and clearing in some sections of the Common. The five-year programme was begun in 1995 but never completed. (Ref 5.2.1). No management plan was agreed with the landowner and the cleared areas have since reverted to scrub. The Naphill Common Liaison Committee was formed in February 1995. This was replaced by the Friends of Naphill Common in December 2008.

As more felling is proposed, probably beginning in 2014, a concerted effort is now required to conserve and enhance those special qualities of the common being lost as woodland covers the entire area. Much of the rarest wildlife can only live in the more open areas, which are fewer and smaller in extent than before. They could be conserved by the re-introduction, to some parts of the common, of traditional methods such as grazing and pollarding of trees, which was the basis of the classic “wood pasture” which dominated for centuries. To this end the ‘Friends of Naphill Common’ was formed at the end of 2008 to “conserve the natural, historic and cultural heritage of the Common, promote the understanding and enjoyment of the Common and encourage community involvement in caring for the Common”.

As part of our aims a Management Plans is required and what follows is our plan for the next 5 to 10 years.

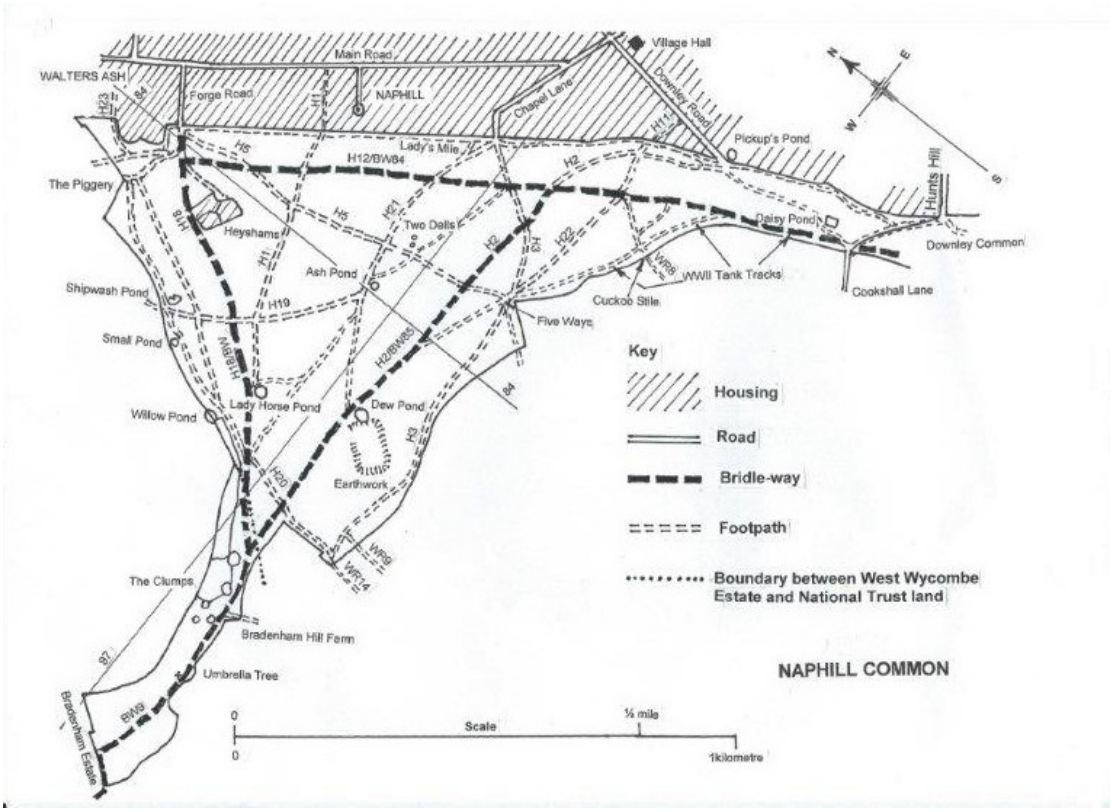
1.0 Site Description

1.1 Location

Naphill Common lies in the heart of the Buckinghamshire Chilterns, and is centred on National Grid Reference (NGR) SU 840970.

Naphill Common forms the eastern most part of the West Wycombe estate and lies on the ridge overlooking the Bradenham valley. To the west and south lie the estates of Bradenham and Hughenden, now owned by the National Trust. Also to the south is Downley Common, owned by the West Wycombe Estate. Immediately to the west lies Cookshall Farm, part of the West Wycombe Estate.

Today, the relatively large and modern settlements of Naphill, Walters Ash and, further to the south, Downley, lie within short walking distance. The older settlement of Bradenham lies a few hundred yards to the west. Until the late nineteenth century Naphill was a very sparsely populated area of countryside, with scattered farms and cottages rather than the thriving, well-populated village of today. See Map 1.



Map 1

1.2 Ownership

Most of Naphill Common is owned by Sir Edward Dashwood of West Wycombe Estate. It is currently leased to Mr. Fincken of Cookshall Farm. A small portion of the Common at the western end, near Bradenham, is owned by the National Trust.

Because the land has so many legal designations, the use and management of the land by the owners is strictly controlled. These designations include, Registered Common Land; it is part of the nationally protected Chilterns Area of Outstanding Natural Beauty; a Site of Special Scientific Interest, and a Special Area of Conservation. This means that if work such as felling is proposed, a range of statutory bodies have to be involved. This could include: DEFRA (Dept of Environment, Food and Rural Affairs), Natural England, Forestry Commission and Chilterns Conservation Board.

1.3 Site Status & Designation

Long regarded as a place of great aesthetic attraction, and harbouring a pleasing range of wildlife habitats characteristic of the Chiltern Plateau - Naphill Common was an early candidate for designation (in 1951) as a Site of Special Scientific Interest (SSSI) (see Appendix I) under the National Parks and Access to Countryside Act of 1949, and it was included, with the adjoining Bradenham Woods, as part of the Nature Conservation Review Site W22 (Ratcliffe, 1977). Following the Wildlife and Countryside Act of 1984 the Common was re-notified (in 1984) in its own right. It is also a Special Area of Conservation (SAC) as part of the Chiltern Beechwoods and part of Chilterns Area of Outstanding Natural Beauty (Chilterns ANOB). Naphill Common is catalogued as site 0326 by the County Environmental Records Centre.

Naphill Common is considered open land under the Countryside Rights of Way (CROW) Act (2000).

As the tree cover and holly spread the common has lost many significant species once recorded, such as Spider orchid *Orphrys sphegodes*, butterfly orchid *Platanthera chlorantha* and spotted orchid *Dactylorhiza fuchsii*, adders *Vipera berus*, common lizards *Lacerta vivipara*, fairy shrimp (*Chirocephalus* Sp.) and most of the heathland flora, but there are still many important and rare species. The magnificent ancient pollards harbour several rare invertebrates, lichens and fungi. The Friends of Naphill Common has commissioned numerous surveys of the flora and fauna which have revealed many important species. As well as the internationally rare starfruit *Damasonium alisma*, there are uncommon species such as hairy bindweed *Calystegia pulchra*, yellow birdsnest *Monotropa hypopitys* and remnants of the once common heath bedstraw *Galium sterneri* and juniper *Juniperus communis*. The Great Beech carries the rare fungus *Hericium erinaceum*, and we have other interesting fungi such as *Strobilomyces floccopus* and *Exidia thuretiana*.

There are at least three locations suitable for purple emperor butterflies *Apatura iris* and it has been seen at one of them in 2011 and 2013. Moth trapping has recorded well over 100 species including the nationally rare mocha *Cyclophora annularia*. Invertebrate surveys have recorded several Red Data Book species, including a longhorn beetle *Anaglyptus mysticus* (B-NB), two craneflies *Prionocera subserricornis* (RDB2) and *Ctenophora pectinicornis* (B-NB), a woodland hoverfly *Xylota xanthocnema* (B-NB) a brown ant *Lasius brunneus* (A-NA) and the beetle *Sinodendron cylindricum.* (See 5.2.5) Such brief surveys cannot give a complete picture but, as can be seen, Naphill Common appears to be an important location for saproxylic fauna (i.e. species connected with ancient trees and decaying timber). Surveys in 1996 and 1997 found another 14 Red Data Book species. (See 5.2.6)

The bird population consists of the predictable woodland species, but the warblers, including chiffchaff, willow warbler and blackcap are there in limited numbers because the holly has severely restricted the growth of a varied understorey and ground flora. Red kites nest on the common and ravens are increasingly frequent visitors. Bat surveys have so far revealed common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus* brown long-eared *Plecotus auritus* and natterer's bats *Myotis nattereri*. Mammals include roe deer *Capreolus capreolus*, fallow deer *Dama dama* and muntjac *Muntiacus reevesi* and the edible dormouse *Glis glis*.

A list of species so far found on Naphill Common can be found via Ref 5.2.5

1.4 Physical Features

The soil is predominantly clay-with-flints, attributed to the Pleistocene (circa 1,800,000 to 10,000 YBP), overlying chalk-with-flints of the Upper Cretaceous (ended 65 million YBP). However, there are traces of pebbly clay, and there are isolated sarsen stones which are the remains of a silcrete layer formed in arid conditions during the Tertiary Period; possibly in the Miocene (circa 20 million YBP).

The total area of Naphill Common is 155.4 acres, 62.9 hectares (SSSI 175.7 acres, 71.1 hectares).

The clay on the Common is particularly impervious, which explains the muddy paths and perhaps why it became a common. Brown earth soils are characteristic throughout. Certain variants of these soils puddle well enough, however: the water-holding capacity of the Commons' several ponds testifies to this.

"The Reading Formation clays should be mapped and this information will be lodged with the British Geological Survey to assist future map preparation. The sarsen location in Willow Pond is highly significant and may prove to be invaluable in proving the age of this deposit. For this reason Willow Pond and the sarsens are to be put forward as a Local Geological Site which will be further researched by the Bucks Earth Heritage Group." Extract from 'Naphill Common Geology and soil survey with feature evaluation 2012' by Jill Eyers (Ref: 5.2.3).

1.5 Cultural Information

1.5.1 Landscape

Originally the Common was at least twice as large as at present. It extended across the present Naphill Main Road and from Walters Ash to Coombe Farm. Its early history is not yet known. In 1700s and early 1800s there was a lot encroachment, with several houses and enclosures on the Common, e.g. Heyshams. Many people were fined for encroachment. From around 1890s onwards the Common became increasingly covered with juniper, gorse, heather and holly. Today it is almost entirely woodland with a very few juniper bushes and a few tufts of heather surviving.

1.5.2 Archaeology and history

Being on the Chiltern Plateau, Naphill Common probably experienced no early prehistoric settlement, although worked flints have been found which may be

Neolithic or Bronze Age. There is an enclosure marked by earthworks thought to be a Romano-British farmstead, and there are signs of iron smelting in the same area. A potsherd was found in Dew Pond, adjacent to the earthworks, which may date from Romano-British times, as indeed may the pond itself. This earthwork is County Archaeological Site (CAS) 1790.

The parish boundaries are important historic features. Originally the area of lord's waste which became Naphill Common lay on the outer rim of West Wycombe, Hughenden and Bradenham manors (and hence ecclesiastical parishes). In 1853 an application was made to enclose the 380 acres lying in Hughenden Parish. The enclosure was approved in Parliament in 1856 and confirmed in 1862. The present-day village of Naphill grew up on the enclosed land. Hence, what remains of Naphill Common now lies mainly within West Wycombe Parish with a small portion in Bradenham Parish, and the boundary between West Wycombe and Hughenden Parish forms the boundary on the north-east side, along the length of the village. The boundary between West Wycombe and Bradenham Parishes forms most of Naphill Common's north and north west border where there are signs of a post medieval park pale – CAS 2435, though the two features do not entirely coincide here: note, for example, how the parish boundary cuts across just east of the clumps towards Bradenham Hill Farm. Indeed, it is this line which the National Trust recognises as the property boundary at this point. Downley Common is also in the northern part of West Wycombe Parish, separated from Naphill Common by a boundary along the track from Cookshall Lane to Hunts Hill Lane.

1.5.3 Land use history

The Common was originally "Wood-Pasture", i.e. open grassland dotted with trees, enclosed by a bank and ditch to keep in animals. Hence trees were pollarded not coppiced. There were numerous encroachments and, following the enclosure of the part in Hughenden, the Common began a natural succession, first to heath land and eventually to woodland.

From Victorian times to the 1920s fairs were held on the Common. As its use for grazing declined it the transformation into heathland accelerated, and by the early 20th Century it was described as a 'juniper forest', although there were already an increasing number of trees.

Local farmers, and perhaps some commoners, continued to graze animals on the Common into the 1920s. After grazing ceased the Common evolved to mixed woodland: from juniper, gorse and heather to birch, cherry and holly, later overshadowed by beech and pedunculate oak. Some of the ancient oak and beech pollards have survived.

In 1951 Naphill Common was declared as SSSI Grade 1 mainly because '…there has been little or no silviculture management since the cessation of grazing. The site is therefore of value to woodland ecologists as a control in which the fate of native tree species, and the associated flora and fauna, can be monitored and compared with more managed stands.'

In 1994 English Nature (now Natural England), who are responsible for the designation of SSSI's, proposed to "restore" the Common by felling trees and

removing scrub so as to open up some paths and areas and return them to heathland. A five year programme of work began in 1995 but was not completed and no management plan was adopted.

Holly has become the main understorey species and presents a serious problem. It is invasive and has formed dense thickets throughout much of the Common. These have narrowed the paths, restricted views and prevented sunlight drying the mud. The holly has also seriously reduced or restricted the growth of ground flora and such species as bramble that is attractive to insects and nesting birds. There is an urgent need to remove large areas of holly so as to improve both the amenity value and the bio-diversity of the Common.

1.6 Access and Visitors

1.6.1 Appeal

Although the common never feels busy it well used by local people and those walking in the area. Naphill lies at the heart of a series of connected sites, all of high quality and providing excellent access via open access land and pubic rights of way.

The collective appeal of Naphill, Bradenham, Hughenden, Downley and the rest of the West Wycombe estate makes this a highly desirable area for quiet recreation, and it is likely to remain so as all these areas are managed with the landscape and amenity as high priorities. This complex site creates a large area with very few roads (Bradenham Wood and Small Dean lanes), providing traffic free walking through a variety of habitats and landscapes with excellent views, for example across the Bradenham and Hughenden Valleys. Whilst many people only walk across the common many others include it on a longer walk. The special appeal of Naphill is the sense of having escaped into a natural area with no visible man made structures, in which it is possible to get away quickly from the flurry of modern life. Once in the woodland the lack of long views adds to the sense of isolation and escape.

2.0 A Vision for Naphill Common

2.1 The past

There have been no attempts to positively manage the Common in recent times. Before it was designated an SSSI the landowners simply let it change naturally from an area of open grassland dotted with trees and ponds, first to heathland then, as grazing declined, to woodland. Once designated an SSSI the policy was to leave it untouched. The decision to allow felling in 1995 was a departure from this policy. Dr. Chris Smith produced a preliminary field survey and management plan for Naphill Common and Part of Downley Common in October 1995 (suggested to cover the period 1997-2007). This was prepared for the West Wycombe Estate in association with the Naphill Common Committee and the Downley Common preservation Society, but it was never implemented.

2.2 The future

The future of Naphill Common is a matter of choice. Friends of Naphill Common would like to find out what local people want to happen to their common but it has to be accepted that the choice will ultimately be made by the landowners and official

bodies. There are many possible futures but to simplify matters we suggest three. Since it has been decided to undertake more felling, probably starting in autumn 2014, the third option looks the most likely. See Map 2.

It is important to note that the Friends of Naphill Common is a local, voluntary organisation, and while it can supply small working groups equipped with hand tools, it cannot undertake a major maintenance programme. It is essential that a maintenance agreement is reached between the landowners and Natural England if the benefits of any changes, such as felling and scrub clearance, are not to be lost.

2.3 Three possibilities

(1) Mini. The common should be left to complete its evolution towards mature woodland with the minimum of intervention.

- The more important paths and bridleways would be kept open.
- Ponds and veteran trees would be left to age naturally.
- The flora and fauna would become uniformly typical of self-generated mature woodland and holly would dominate the understory. Due to its history the Common would lack the flora typical of ancient woodland.

This choice would be the least costly in both money and effort but would result in a decline in the amenity value of the Common as the trees spread over what remains of the more open areas (mainly at the southern end) and as the glades are lost. There would be a serious decline in bio-diversity, especially in the ponds, and within a few decades most of the veteran pollards would be lost. Holly would restrict access along the footpaths and reduce the diversity of undergrowth.

(2) Midi. There would be active intervention to achieve a more open and varied common, but there would be no felling.

- Paths, bridleways and some glades would be opened up to allow in more light by removing saplings, and scrub would be cleared manually.
- Several ponds would be cleared and veteran trees would receive attention to try to prolong their lives.
- The flora and fauna would be more varied: mainly woodland but with some heathland and grassland species returning to the open areas.

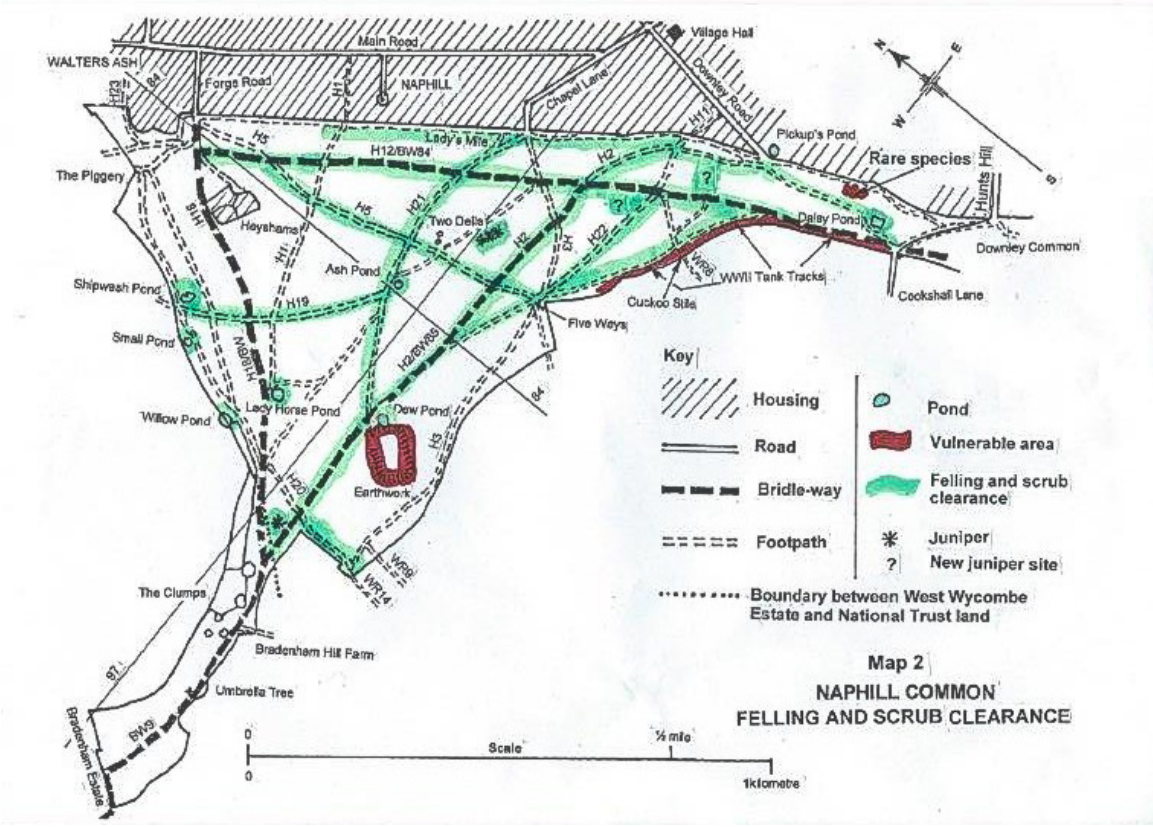
This choice would require very considerable work to achieve and maintain (beyond the capability of FONC alone) but, if achievable, it would result in improved amenity value and bio-diversity. As the tree cover matures there would eventually be a slight decline in bio-diversity and the task of maintaining open spaces would become more difficult.

(3) Maxi. The common would be changed more extensively, with some felling to achieve a mixture of mature woodland, heathland and grassland.

- Paths and bridleways would be opened up; some areas would be preserved as mature woodland, others as heathland and grassland.
- Ponds would be conserved and improved according to a carefully planned programme of intervention. Surrounding trees and scrub would be removed.
- Veteran trees would be cared for and some new pollards made.

- The flora and fauna would become much more varied, with large areas of heathland with juniper and gorse and open areas of grassland.
- A few grazing animals might be introduced to control the scrub.

If the proposal to fell about 20% of the trees is carried out this choice is possible, but only if the felling is done in a way designed to achieve the ends described, and if a large proportion of the holly is removed. (See Map 2.) There would have to be a maintenance agreement for the future so as to prevent the regrowth of scrub and the subsequent re-establishment of tree cover. FONC could contribute to the maintenance but could not undertake the whole programme. If successfully executed, the result would be much greater bio-diversity and improved amenity value due to the variety of habitats and scenery. The ponds would be restored; the veteran pollards would have their lives extended and would be replaced by others when they eventually fall.



Map 2

3.0 Objectives

Given the decision to allow the felling of up to 20% of trees and some scrub clearance, probably beginning in 2014, the following should be our main objectives.

(1) To enhance the biodiversity and amenity value of the entire common. This should be done by guiding the felling so as to achieve these ends. Specifically, by opening up the glades, paths and ponds to more sunlight by removing young trees and scrub, while preserving the veteran and significant trees, and ensuring that archaeological features and the sites of rare plants are not damaged. See Map 2.

(2) To restore the existing ponds according to a detailed maintenance programme. This should increase biodiversity and would include maintaining and increasing the population of the rare Starfruit *Damasonium alisma*. See 4.3 below and Appendix II.

(3) To free the ancient trees (particularly oak) from competition by younger beech and holly, and to maintain these on the common for as long as practicable through appropriate tree surgery and pollarding.

(4) To establish a new generation of pollarded oak and beech on the common.

(5) To maintain and, where practicable, increase the population of juniper.

(6) To research the history of the Common, and record, investigate and preserve its archaeological features.

(7) To carry out surveys to establish the flora and fauna of the Common.

(8) To manage the Common according to a long-term management plan, agreed with all parties, which would include regularly attending to the paths, open areas and ponds etc.

(9) To encourage and facilitate the responsible and non-damaging use of the Common for recreation.

4.0 Ten Year Work Plan

4.1 Ten year work plan 2014 – 2023

Project	Details	When									
		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Scrub Clearance	4.2										
Footpaths	4.2.2	1	2	2	2	3	1	2	3	1	2
Bridleways	4.2.2		2	2	2	3	2	2	3	2	2
Remove invasive holly	4.2.3	1	3	3	3	3	1	1	1	1	1
Clear existing glades	4.2.4			2	1	1	2	3	3	2	3
Maintenance	4.2.5		2	3	2	3	2	3	2	3	2
Ponds	4.3										
Scrub clearance around ponds	4.3.1	See next table for details									
Pond clearance 1/4	4.3.2 4.3.3	See next table for details									
Pond maintenance	4.3.4	See next table for details									
Junipers	4.4										
Clear areas for Junipers	4.4.1		1	2		2		2		2	
Plant Juniper cuttings	4.4.2		1								
Check and maintain Junipers	4.4.3			1	2	3	3	3	3	3	3
Veteran Trees	4.5										
Survey	4.5.1	1	1			2			2		
Monitor	4.5.2		3	1	3	2	1	3	2	1	3
Create New Pollards	4.5.3		3	3							
Management	4.6										
Review Work Plan	4.6		3	2	1	3	2	1	3	2	1

1 – Essential 2 – Highly Desirable 3 - Desirable

10 year Management Plan for the Ponds on Naphill Common

Year Pond	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Ash	Felling and Scrub clearance Autumn/winter	Excavate leaf litter Autumn	Introduce a selection of aquatic veg. Spring			Monitor progress Summer			Monitor progress Summer	
Daisy	Felling and scrub clearance Autumn/winter	Remove ≈10m^2 aquatic veg. trample shallow. Oct - Dec	Remove ≈10m^2 aquatic veg. trample shallow. Oct - Dec	Remove ≈10m^2 aquatic veg. trample shallow. Oct - Dec	Monitor progress Summer	Remove ≈10m^2 aquatic veg. trample shallow. Oct - Dec	Monitor progress Summer	Limited dredging Oct - Dec	Monitor progress Summer	Limited dredging Oct - Dec
Dew	Felling and scrub clearance Autumn/winter				Scrub Clearance Autumn/winter				Scrub Clearance Autumn/winter	
Ladyhorse	Felling and scrub clearance Autumn/winter		Net amphibians. Dredge leaf litter return amphibians Oct - Dec	Scrub Clearance Autumn/winter			Scrub Clearance Autumn/winter			Scrub Clearance Autumn/winter
Shipwash	Felling and scrub clearance Autumn/winter	Dredge half area. Oct - Dec	Dredge half area. Oct - Dec	Monitor progress Summer	Scrub Clearance Autumn/winter			Monitor progress Summer		Scrub Clearance Autumn/winter
Small	Scrub Clearance Autumn/winter		Monitor progress Summer		Scrub Clearance Autumn/winter				Scrub Clearance Autumn/winter	
Willow	Scrub Clearance Autumn/winter	Remove some Sweetgrass & dredge 10m^2 Oct - Dec		Remove some Sweetgrass & dredge 10m^2 Oct - Dec		Remove some Sweetgrass & dredge 10m^2 Oct - Dec		Dredge 10m^2 Oct - Dec		Monitor progress Summer

It is proposed that felling begins September 2014. If delayed, all work will be adjusted to suit.
The Friends of Naphill Common (FoNC) will undertake much of this work but help from other groups and organisations will be required.
All work will be supervised by those with the relevant expertise and licences.
Care will be taken during dredging and removal of aquatic vegetation to protect important species.

4.2 Scrub Clearance

4.2.1 General
Scrub should be removed using hand tools and a brush cutter, where applicable. A general regard should be given to the local environment and to health and safety issues.

4.2.2 Footpaths & Bridleways
All holly should be removed from alongside footpaths and bridleways. Other scrub may also be removed. Existing mature trees should be retained; some smaller trees and saplings may be removed.

4.2.3 Holly
Invasive holly should be removed where practical. Specimen trees should be retained.

4.2.4 Glades
Existing glades should be cleared of scrub and extended where applicable.

4.2.5 Maintenance
On an annual basis all footpaths and bridleways should be checked. Maintenance performed as required.

4.3 Ponds (Reference 5.2.2)

There are at least seven recognisable ponds on the Common. Most have slightly acidic water derived from the predominately clay soils, but two – Small Pond and Dew Pond - have somewhat basic water and may be fed by springs from the underlying chalk. The ponds are of historical significance; of great amenity value and, despite their decline, they are oases of bio-diversity. Their restoration is vital.

A recent year-long pond survey by Marshall and Bennett (2013) established the current condition of the ponds and compared this with past records (Ref 5.2.2). The overall picture is one of a serious decline in bio-diversity, chiefly due overshadowing by the encroachment of trees and scrub, and the subsequent accumulation of leaf-litter and other debris. For example: of the 174 wetland species in the BMERC records for Naphill Common, only 33 were found during the survey; of 26 aquatic and marshland beetles, 3 were found and none of those associated with clear open water have survived; 8 of the 10 water-bugs have been lost; only 4 of the 7 water-snails are still present; of the 6 wetland mosses, two were found and there are no aquatic birds except for the ubiquitous mallard.

A ten year programme of careful management should be undertaken, guided by the recent pond survey by Marshall and Bennett, which included numerous recommendations. Recommendations for management specific to each individual pond are given below.

4.3.1 Tree and Scrub clearance around ponds
According to the survey this is the most prevalent need for all of the ponds. Small trees and scrub should be removed up to 7 – 10m from each pond, using hand tools and a brush cutter where applicable. The impending programme of felling should

include special attention to areas around ponds. A general regard should be given to the local environment, to the particular requirement of each pond and to health and safety issues. It is desirable that some larger trees be removed during the felling, to allow more light into the ponds. Logs, stones and brash should be left nearby, taking care not to smother important vegetation.

4.3.2 Pond clearance.

Clearing ponds must be done with great care and while respecting the individual requirements of each pond. Bottles, cans and other rubbish should be removed. Excessive leaf litter and fallen branches should be extracted but some should be left. Large logs should be left *in situ*. Some of the ponds will benefit from the careful removal of some of their sweet grass, but this must be done to suit their individual requirements. A "circulating" pattern of sweet-grass removal should be adopted in which it is cleared from a different part of the pond each year, thus always keeping an area of open water. At least some of the mud removed from the ponds should be used to build up the banks as it may contain seeds, although some shallow edges must be maintained.

The report by Marshall and Bennett suggests that a mechanical digger could be used on the larger ponds because of the scale of the work required. However, this would have to be undertaken with the greatest care and with regard to the ecology surrounding those ponds.

4.3.3 Specific Ponds

Ash Pond

Originally a stock pond, Ash Pond has the most limited flora and fauna of all the ponds. It is overshadowed by trees and scrub, and polluted with rotting leaves and is bare of aquatic plants. Nearby there is narrow buckler fern *Dryopteris carthusiana* and wood-sorrel *Oxcalis acetosella*.

Being virtually barren of aquatic species radical management would not damage this pond. Management should begin with the removal of some trees and scrub during the felling programme. It would then be possible to re-excavate the pond by removing the accumulated leaf-litter. If some aquatic vegetation is introduced it could once again attract amphibians. Care must be taken to not to introduce alien species such as lesser spearwort and water-starwort, and not to put the excavated material where it will damage the narrow buckler fern.

Daisy Pond

This is the most bio-diverse pond on the Common, exceeding all others in both flora and fauna. It is the site of the internationally rare starfruit *Damasonium alisma*, last seen in 1995. It is the least shaded of all the ponds and is a habitat for grass snakes, palmate and great crested newts and frogs. It is the only pond on the Common containing cyperus sedge *Carex pseudocyperus*. There is a very varied invertebrate community.

The immediate work required involves removal of surrounding scrub and tree saplings, leaving the gorse, and increasing the amount of open water by removing at least $10m^2$ of aquatic vegetation each year until 50% of the pond is clear of vegetation. Care should be taken not to eliminate blinks *Montia Fontana*, lesser

spearwort *Ranunculus flammula*, and floating sweet-grass *Glyceria fluitans* because these are important plants for egg-laying by great crested and palmate newts. Similarly the cyperus sedge should be retained. While clearing scrub, care must be taken not to damage surrounding ground flora, including the hemp-nettle, which is host to an uncommon plant-bug *Dicyphus constrictus*.

In light of the presence of grass snakes at Daisy Pond, the vegetation cleared from and around the pond should be used to create hibernation and egg laying sites for grass snakes. A possible location for these could be near to the ride created by the National Grid around the neighbouring pylons. See Ref 5.2.2 for details.

The programme should include a concerted attempt to encourage the reappearance of starfruit, guided by expert advice. This should be done by maintaining a shallow draw-zone which is kept free of excessive vegetation and occasionally trampled to produce the conditions favoured by the species.

As sediment accumulates the pond will become less favourable for the crested newts. Therefore, within five to ten years some careful and limited dredging should be considered under the guidance of someone qualified to handle this species.

Dew Pond

Dew pond is adjacent to the Romano-British farmstead, for which it could have been the water supply. It is large and shallow with a stony bottom. It was rather severely dredged about twenty years ago. The water is clear and slightly basic, so may be fed by a spring from the chalk underlying the clay. This pond is more open than most on the Common and has an ancient pollard beech nearby which provides a significant ecological community for fungi and invertebrates. The pond contains both smooth and palmate newts, and is the only pond on the Common with the marshland rove beetle *Philonthus decorus*. It shares with Small Pond the plant hopper *Notus flavipennis* and the pea mussel *Pisidium pulchellum*. The open, sunlit situation encourages butterflies and dragonflies.

The pond does not require any conservation work in the near future apart from the removal of any encroaching scrub. As a Romano-British potsherd was found in the pond it might be worthwhile examining the pile of debris on the Eastern side of the pond, removed in the earlier dredging.

Lady Horse Pond

A large stock pond with a firm, stony bottom but with an accumulation of leaf-litter and numerous fallen branches. It is in a fairly open position and has aquatic vegetation, including floating crystalwort *Riccia fluitans*, lesser spearwort *Ranunculus flammula* and yellow iris *Iris pseudacorus*, which makes it attractive to newts: having both smooth and palmate newts together with the southern hawker dragonfly *Aeshna cyanea*. There is an old beech tree on its Eastern edge.

It is recommended that this pond is restored by digging it out to its original depth and by removing the fallen branches. Nearby scrub and saplings should be removed. Restoration should be carried out during the newts' terrestrial phase, ideally in early autumn. However, as newts may be present at all times, the pond should be netted and the newts returned after the excavation is complete. The aquatic vegetation should be retained or removed and returned after clearing is complete.

Shipwash Pond

The kidney shape of this pond, with its long promontory confirms what the name suggests - that it was used for washing sheep. It is now seriously overshadowed by trees, surrounded by scrub and clogged by leaf-litter. It is often almost dry in summer. Consequently it is too shallow and dark to maintain a good aquatic community, and has fewer aquatic and wetland plants than any other pond on the Common apart from Ash Pond. Its invertebrates are almost all terrestrial species but it is the only pond with the uncommon water cricket *Velia caprai*. There are a few palmate newts. The North East bank gets the most sun and here there is an important relic of the heathland community once widespread on the Common, including heather *Calluna vulgaris*, sheep's fescue *Festuca ovina*, red fescue *F. rubra* and hairy woodrush *Luzula pilosa*.

During the felling a number of trees should be removed within 7-10m of the pond to let in more light, and the extensive holly scrub should be cleared. The accumulated leaf litter and fallen branches should be removed and the pond restored to its full depth, taking care to preserve the historic shape of the pond and the promontory. To ensure the survival of the water cricket the restoration should be done over two years, a half at a time. A shallow edge should be provided for amphibian access. Care must be taken to preserve the warm bank on the NE side with the heathland ecology and aid its spread by removing nearby scrub.

For its historic interest, the original promontory, which was used in dipping the sheep, should be cleared of shrub growth and, where necessary, restored by using mud from the clearance of the pond. Care must be taken not to damage the heathland community nearby.

Small Pond

Despite its diminutive size, Small Pond has a greater variety of aquatic species than any other pond except Daisy and it is least likely to dry up during summer. Its water is clear and somewhat basic rather than acidic, so may be fed from a spring. Species of non-acidic habitats found here include variable forklet-moss *Dicranella varia*, the plant-hopper *Notus flavipennis* and the pea mussel *Pisidium pulchellum*. It has palmate newts and frogs. It is the only pond which has amongst its aquatic flora various-leaved water-starwort *Callitriche platycarpa*, small sweet-grass *Glyceria declinata* and pale persicaria *Persicaria lapathifolia*. At the time of the survey borrer's male-fern *Dryopteris borreri* was found growing on one bank, although this disappeared at some time during the year, perhaps an unfortunate by-product of clearance of bank vegetation.

This pond requires no conservation work in the near future but would benefit if the adjacent scrub and saplings are removed.

Willow Pond

This is a large, well lit, pond with good aquatic vegetation. It is unlike the other ponds in that it was probably not for stock but originated as a steep-sided pit, excavated for clay or Denner Hill stone; a few boulders remaining *in situ*. The remains of a boundary fence, between the Bradenham Estate/parish and the West Wycombe Estate/parish, runs across the middle of the pond. Willow pond contains palmate newts, frogs and the shrimp *Crangonyx pseudogracilis*. Being well lit, it is visited by several species of butterflies and dragonflies, and by the once rare lacewing

Drepanepteryx phalaenoides. The aquatic vegetation includes floating crystalwort *Riccia fluitans*, yellow iris *Iris pseudacorus*, common water-starwort *Callitriche stagnalis*, sweet-grass *Glyceria fluitans*, soft rush *Juncus effuses* and two duckweeds *Lemna minor* and *minuta*. There is an Ordnance Survey mark on a nearby fence post.

The banks of Willow Pond have an interesting terrestrial flora including wood-sorrel *Oxalis acetosella* at the south end and hairy wood-rush *Luzula pilosa* on the east side. To the west the marsh vegetation is more varied than the other ponds, including wavy bittercress *Cardamine flexuosa*, square-stalked willowherb *Epilobium tetragonum*. A fallen tree-trunk and the boulders have a developing flora of mosses and lichens.

Little maintenance is needed here at present apart from cutting a minor amount of bankside scrub, removal of branches from the water and extracting some of the sweet-grass dominating some parts. The major fallen tree is best left *in situ*. The pond is gradually silting up with leaf litter and some re-excavation should be contemplated in a few years' time. The large Denner Hill stones should not be disturbed as they are of geological interest if in their original position (Ref. geologist Jill Eyers). The remains of the boundary fence should be left undisturbed.

4.3.4 Maintenance

After excavation ponds should be monitored in the subsequent year for returning species. Although the rare starfruit has only been recorded at Daisy, it is possible that it once grew at other ponds as well, and the most likely time to observe it would be the year following excavation.

Ponds always follow a natural succession from open water to closed vegetation and ultimately drying out. Each stage (except the final one) is important for different aquatic communities. Where there are several ponds in close proximity it is possible to restore ponds at different times to ensure that each one is in a different successional stage, maximising the variety of aquatic life across them. In the case of Naphill Common, Willow, Ladyhorse, Shipwash and Ash provide a possibility of such an organised succession. Ash, as the closest of these ponds to finality, would be restored in the first year. Shipwash might be restored in the next year or the one after, Ladyhorse two years after that, with Willow completing the series in 7-10 years' time.

4.4 Junipers

In the early 20th Century, Naphill Common was described as a juniper forest. There are presently four surviving juniper bushes, all are old and in rather poor condition. (See Map 2.) One is known to be male, another female but the other two are, as yet, unidentified. All four are seriously overshadowed by trees and holly (Ref. 5.2.4). Cuttings were taken in 2010 by the Buckinghamshire County Council authorities and Andy McVeigh; thirteen have survived so far and will soon be ready for planting. The best location would be close to the parent plants. The impending felling should provide an opportunity to produce a suitable clearing of about 300m^2.

4.4.1 Scrub Clearance by Wessex Woodlands as part of Woodland Improvement Grant is stated as follows: "At the key juniper locations the existing canopy of broadleaves will be removed from overhanging and shading the juniper. This will be done by

motor manual felling and arising placed behind the last remaining row of trees. Holly will also be controlled to ensure it does not spread into the juniper areas."

4.4.2 Planting

Planting 3-4 year old cuttings taken from existing trees on Naphill Common should be planted as near to the parent trees as possible, preferably in an area cleared during felling. (see Map 2 for suggested sites.) Advice on planting will be sought from the National Trust which has experience of planting Junipers within the Chilterns. The Head Ranger at the National Trust's Hughenden Estate has expressed willingness for some of the juniper cuttings to be planted in the small meadow next to the Clumps, if necessary.

4.4.3 Maintenance

The Junipers should be monitored on an annual basis and necessary maintenance performed to keep the area clear of scrub.

4.5 Veteran Trees

4.5.1 Over the past six years, FONC has been undertaking a survey of all of the significant trees on Naphill Common. The survey includes any tree with a girth of 2.5m or greater (generally measured at 1.3m height) together with other trees judged to be significant, such as large holly, cherry and birch trees. The survey includes all veterans, pollards and fallen trees. Each tree is photographed and labelled. The species is established, the girth is measured, and any significant features including fallen limbs, disease, fungi, carving, etc., are recorded. To date 333 trees have been surveyed which covers about three-quarters of the total area, and the survey should be finished before the proposed felling begins.

4.5.2 Advice for the care of the veteran and pollard trees will be sought from such oganisations as Natural England, Treework Environmental Practice and authorities at Burnham Beeches.

4.5.3 **Create New Pollards**

A programme of pollarding a number of young beech and oak trees should be drawn up and permission sought for its implementation.

4.6 Management

It is important that a management plan, preferably spanning ten years, is agreed between Natural England and the West Wycombe Estate and including The Friends of Naphill Common, so that the advantages gained from the felling, scrub clearance and pond restoration are not wasted.

Progress on work carried out based on the 10 Year Plan should be reported at each Committee Meeting of The Friends of Naphill Common. An annual review should take place with a detailed review every 3 years. There should be regular reports to Natural England and West Wycombe Estate.

5.0 Acknowledgements & References

5.1 Acknowledgements

'Chilterns Commons Project' for their encouragement and support

5.2 References

5.2.1 'A preliminary field survey and proposals for the continuing management of Naphill Common and part of Downley Common' by C.J. Smith (Farm & Countryside Liaison Services) October 1995.
http://www.naphillcommon.org.uk/Preliminary_Field_Survey.pdf

5.2.2 'Naphill Common Ponds Survey 2013' by Tony Marshall and Holly Bennett for Friends of Naphill Common, November 2013.
http://www.naphillcommon.org.uk/Naphill_Common_Ponds_Survey_Report.pdf

5.2.3 'Naphill Common Geology and soil survey with feature evaluation' by Jill Eyers
http://www.naphillcommon.org.uk/Naphill_Common_REPORT.pdf

5.2.4 Report on the Junipers on Naphill Common
http://www.naphillcommon.org.uk/Junipers_2010.pdf

5.2.5 Lists of species found, so far, on Naphill Common

Fungi	http://www.naphillcommon.org.uk/fungi.html
Insects	http://www.naphillcommon.org.uk/insects.html
Moths	http://www.naphillcommon.org.uk/moths.html
Plants	http://www.naphillcommon.org.uk/plants.html
Trees	http://www.naphillcommon.org.uk/treesNC.html

5.2.6 'A survey of the insects of Naphill Common – 1996 and a second survey of the insects of Naphill Common – 1997' Peter Hodge for English Nature and Chiltern Team.
http://www.naphillcommon.org.uk/Insect_survey_1997.pdf

6.0 Appendices

I. SSSI Document.

COUNTY: BUCKINGHAMSHIRE **SITE NAME:** NAPHILL COMMON

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

Local Planning Authorities: Wycombe District Council, Buckinghamshire County Council

National Grid Reference: SU840972

Ordnance Survey Sheet 1:50,000: 165 **1:10,000:** SU89 NW

Date Notified (Under 1949 Act): 1951 **Date of Last Revision:** 1981

Date Notified (Under 1981 Act): 1988 **Date of Last Revision:**

Area: 71.1 ha 175.7 ac

Other information: Described in 'A Nature Conservation Review' (site W.22). Formerly part of Bradenham Woods SSSI, now notified separately. The site is within the Chilterns AONB. It is a registered common with commoners' rights of estovers, grazing and firebote.

Description and Reasons for Notification

The structure and composition of this oak-beech woodland are believed to be more natural in character than any other Chiltern woodland. Unlike most Chiltern woods, the number of tree and shrub species is large. There is a scattering of old pollards, a mixed canopy and an extensive and varied understorey. There are patches of acid heathlands in the more open areas of the common and diversity is further increased by wet rides and ponds. In the 1890s most of the site was open wood-pasture with gorse scrub and juniper 4.5 to 6 m high.

The site is situated on the clayey soils of the Batcombe series and lies on an acid plateau which falls away to the west into a chalk escarpment.

The woodland contains many large ancient oak and beech pollards, survivors from the period when the common was more open and grazed by stock. The pollards are surrounded by younger woodland which originated with the cessation of grazing at the beginning of this century. In places oak dominates the stand, often in the absence of beech. The site includes some sessile oak, a tree with a very limited distribution in Buckinghamshire. Elsewhere, birch and wild cherry are locally abundant with frequent rowan and occasional whitebeam, crab apple and ash. The understorey contains much holly, including some large specimens, while hawthorn and hazel are less common and yew, field maple and blackthorn occur locally on the southern margin. The ground flora contains a number of species which are typically associated with ancient woodland; most noteworthy being the rare wood barley *Hordelymus europaeus*. Other species include enchanter's nightshade *Circaea lutetiana,* bluebell *Hyacinthoides non-scripta,* pignut *Conopodium majus,* wood-sorrel *Oxalis acetosella,* remote sedge *Carex remota,* hairy wood-rush *Luzula pilosa* and the grasses wood melick *Melica uniflora,* wood millet *Milium effusum* and giant fescue *Festuca gigantea.* The absence of many other species typical of ancient woodland in the Chilterns is presumed to reflect the history of grazing followed by natural succession to dense woodland.

The woodland has a very unusual structure and composition because there has been little or no silvicultural management since the cessation of grazing. The site is therefore of value to woodland ecologists as a control in which the fate of native tree species, and the associated flora and fauna, can be monitored and compared with more managed stands.

Little of the once extensive heathland remains, but in scattered clearings many characteristic species, which are now uncommon in the county, still persist. These include heather *Calluna vulgaris,* heath bedstraw *Galium saxatile,* sneezewort *Achillea ptarmica, pill* sedge *Carex pilulifera* and wavy hair-grass *Deschampsia flexuosa.*

Further diversity of habitat is provided by wet rides which support water starwort *Callitriche stagnalis,* water-pepper *Polygonum hydropiper* and marsh cudweed *Gnaphalium uliginosum,* and ponds containing floating sweet grass *Glyceria fluitans,* lesser spearwort *Ranunculus flammula* and a population of smooth newt *Triturus vulgaris.*

Large ancient and decaying pollards are important habitats for a range of invertebrates and epiphytic lichens.