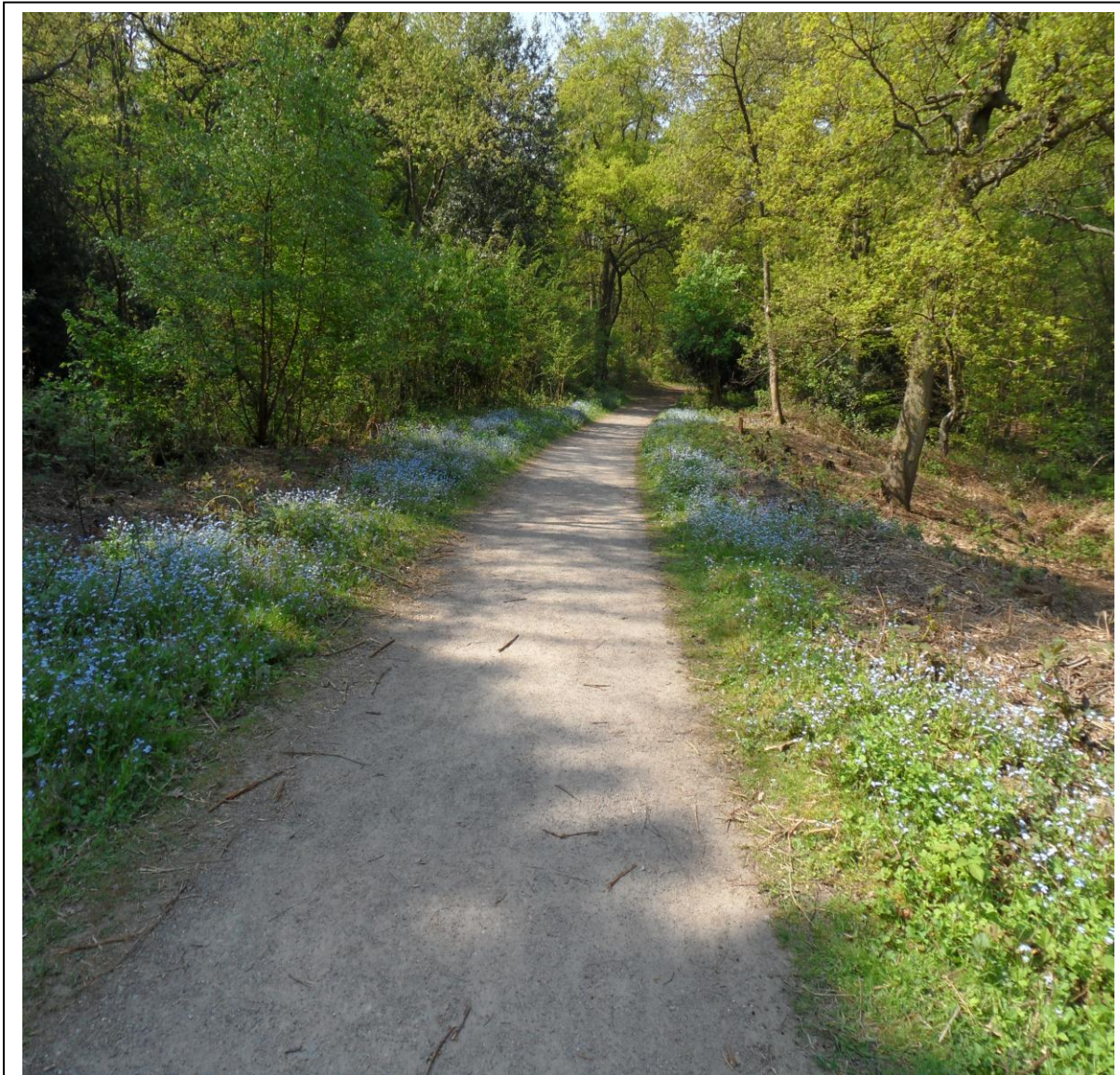


APPENDIX 1

Sandy Heath Ride Management Work Plan

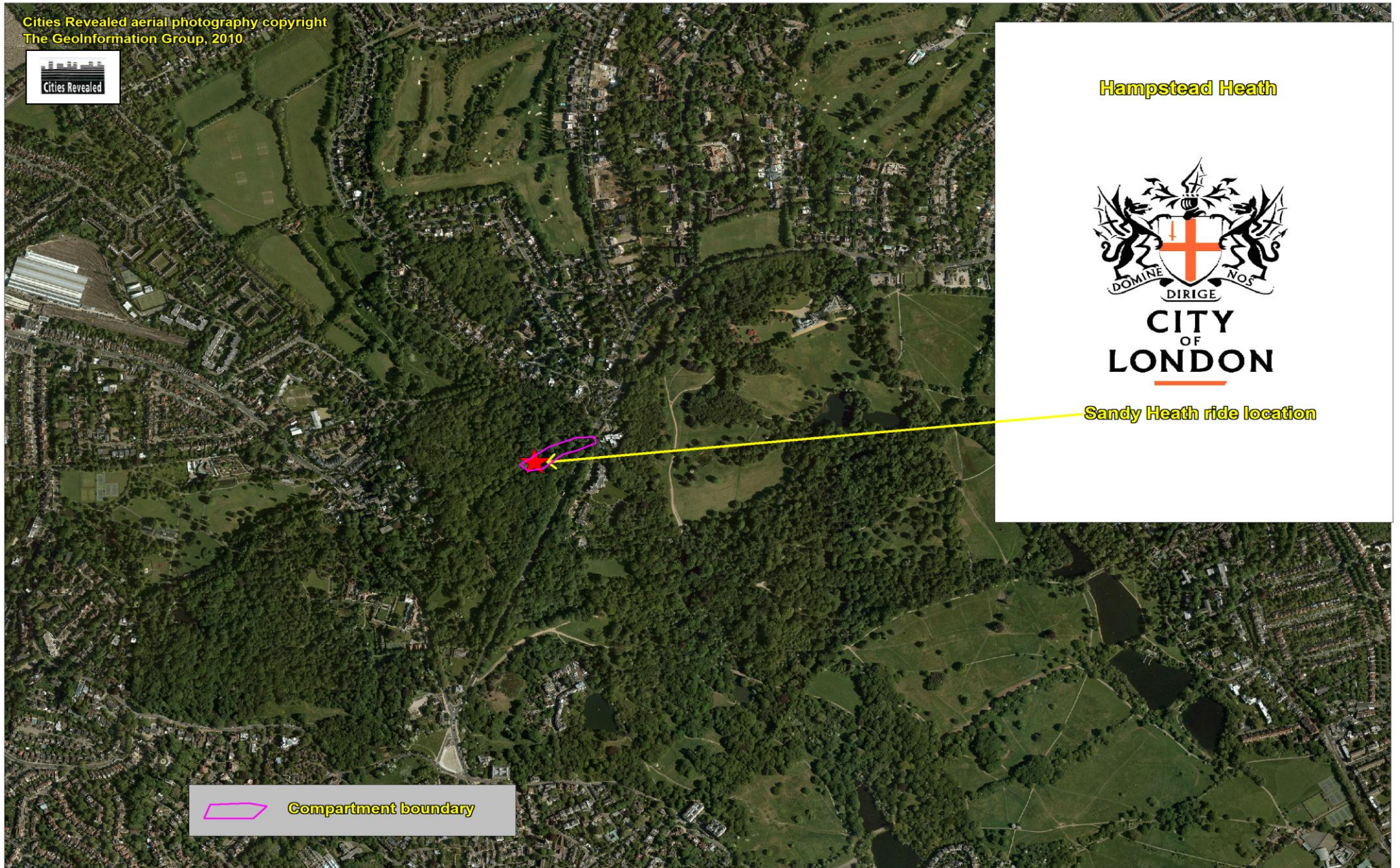
Adrian Brooker

April 2013



Sandy Heath ride site

1.0. Site description : Figure 1



1.1 Location

The Sandy Heath ride site is located on the western side of Spaniards road towards the west of Hampstead Heath. The site is located in an area widely known as Sandy Heath and is a largely linear site following the line of the old Sandy road which is currently a metalled pathway running NE to SW. The centre of the Sandy Heath ride site is at grid reference 526,512; 187,103 and covers an area of approximately 0.74 hectares. The 2009 Hampstead Heath vegetation survey shows the site as being in compartment 1183.

The approximate compartment boundary can be seen in figure 1. The Sandy ride site is bordered by secondary woodland to the east and west with the Sandy ponds to the south. The northern end of the ride abuts Hampstead lane near the Spaniards Inn.

The area is unenclosed and it is only the vegetation that provides a barrier to access.

1.2 Geology, Soils, Hydrology

The majority of the sandy ride site is located on an area of Bagshot sand although from geology maps the section towards the North-East end may be on an area of Stanmore gravel. The main path running along the length of the ride is relatively flat. However either side of the path the Sandy ride site has a mixed topography. Some sections are in hollows or dips and others are where the ground rises up or is higher than the adjacent path.

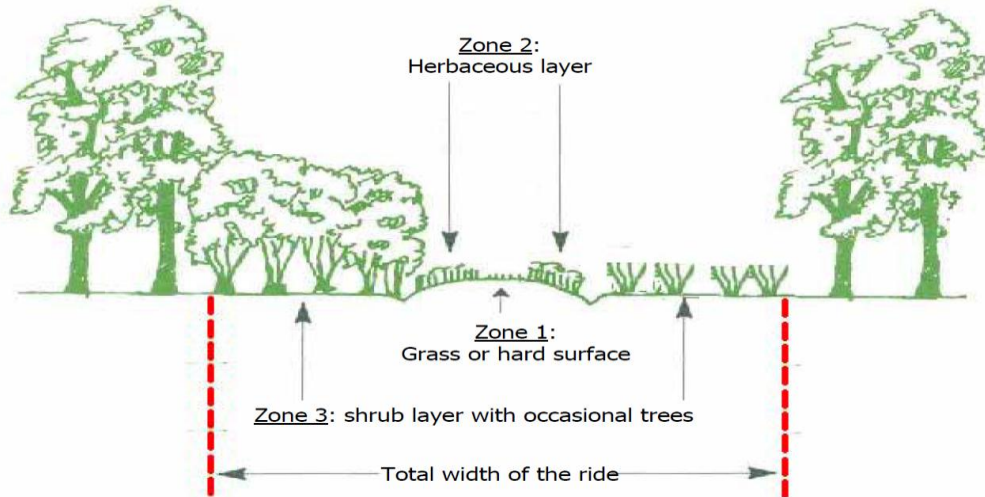
1.3 Ecology

A track or path becomes a ride when it is wide enough for a gap in the canopy to allow sunlight to reach the ground. Rides usually consist of a number of zones graduating from short turf to canopy trees

The Sandy site is typified by a man-made path running through the centre; this is fringed by a section of shorter low herbage which is approximately 1-2m wide. A section of taller herbage and scrub then occupies 10-15m which buffers onto mostly secondary woodland (see cover photo). Some standard trees are present in locations along the ride. The ride site receives sun in varying degrees and locations throughout the day with the side north of the path generally receiving more hours of sunlight than the southern part. The trees within the ride site and those fringing cast shade particularly to the North-eastern and south-western end sections. The centre part is largely sunny throughout the day.

Rides provide fringe habitat for invertebrate, birds and mammals alike, with flowering plants providing nectar sources and scrub providing foraging for birds and mammals. A greater number of species are thought to inhabit the first 10 metres of woodland or ride edge than inhabit the remainder of the woodland. Studies have shown that rides running in an east to west line are in sunlight longer than north-south rides and in general warmth and sunlight promote the greatest wildlife benefit (Forestry Commission, 2005). Without management a ride would eventually become impassable or surrounded by tall trees. The greatest benefit from a ride is gained when the width of a ride is greater than the height of the adjacent canopy. The ride should also be non-linear if possible as this will maximise the woodland edge increasing habitat diversity.

Figure 2: An example cross section of an ideal ride for biodiversity. (Forestry Commission)



Along the length of the ride there are quite varied vegetation characteristics. Bramble is ubiquitous along the length of the ride and patches of nettle and bracken are also found in large quantities to the east. The vegetation fringing the main path is quite floristically rich with red campion, forget-me-not, garlic mustard and species of hawkbit, hawkweed and cats ear. Foxglove is common along the ride growing in large numbers particularly in the central area of the ride. Other species found include hogweed, burdock and wood avens. Wood sage was previously found in the centre of the compartment but was not recorded in 2012.

This varied and flower rich vegetation is good for butterflies such as orange tip, which commonly frequent the ride in spring.

A large specimen of Midland hawthorn exists in the eastern section as do mature specimen hollies to the west. Other trees growing along and within the ride include large oaks, ashes and beeches. Non-native turkey oak, sycamore and Norway maple are also present. Suckering elm grows throughout the compartment. Outside the ride compartment boundary, numerous mature oak, horse chestnut and beech trees grow, some of which appear in the 1870's map shown in figure 3 and appear to be in the approximate position of an avenue discussed in section 1.5 below.

A few gorse bushes remain in the compartment but the few plants of heather that existed up until 10 years ago do not appear to remain.

A woodcock was disturbed during survey work in Dec 2012, sheltering in the scrub section of the ride. Due to tree shading and public use, much of Sandy Heath is lacking in a thick understory suitable for woodcock to shelter and the sandy ride provides this habitat as well as nesting opportunities for other birds.

Rabbits occur which can be detrimental for seedling growth, but they may maintain open grassland in nearby areas.

Small balsam grows in extensive patches in shadier areas of the compartment.

1.4 Public and educational uses

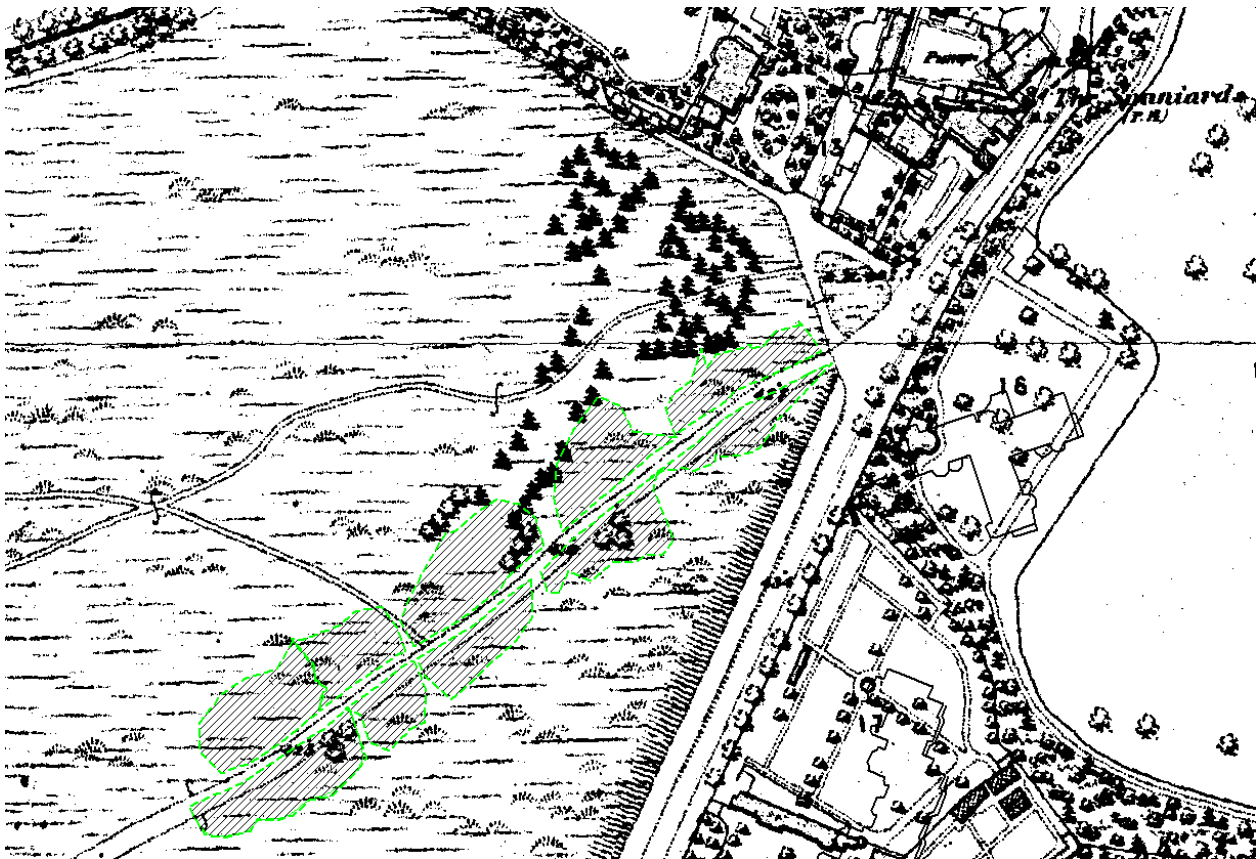
The path running through the ride is regularly used as the track running through the patch is the main path joining Sandy road with Spaniards road and used mainly by walkers. There is very infrequent educational use of the area.

1.5 History

The compartment would have been much more open heathland until the last 50 years or so with more extensive patches of grassland, bare ground and gorse. This heathland would probably have been present prior to the extensive sand digging that took place over large parts of Sandy Heath for several years until 1871. The sand digging however produced a largely barren landscape from which heathland re-established. This then gradually developed into scrub and woodland through succession in the last 50 years or so due to a reduction in grazing when it became public property.

On the northern fringes of the compartment numerous mature trees grow, including 2 horse chestnuts within the compartment boundary. A number of these trees appear to form the beginnings of a largely pine planted avenue (planted after but in the region of 1734; British History Online²) leading up to the area known as Turners firs after the local landowner John Turner who was also part responsible for the original sandy roadway, now the location of the Sandy ride. This remained open to vehicles as a public road until 1924 and was a main thoroughfare linking up with North End (Farmer, 1984³).

Figure 3: C.1870's map showing Firs Avenue and current ride compartment (hatched)



The above figure 3 shows the avenue of pine trees (dark shaded trees) and also a number of other marked trees (unshaded) some of which are believed to still be present.

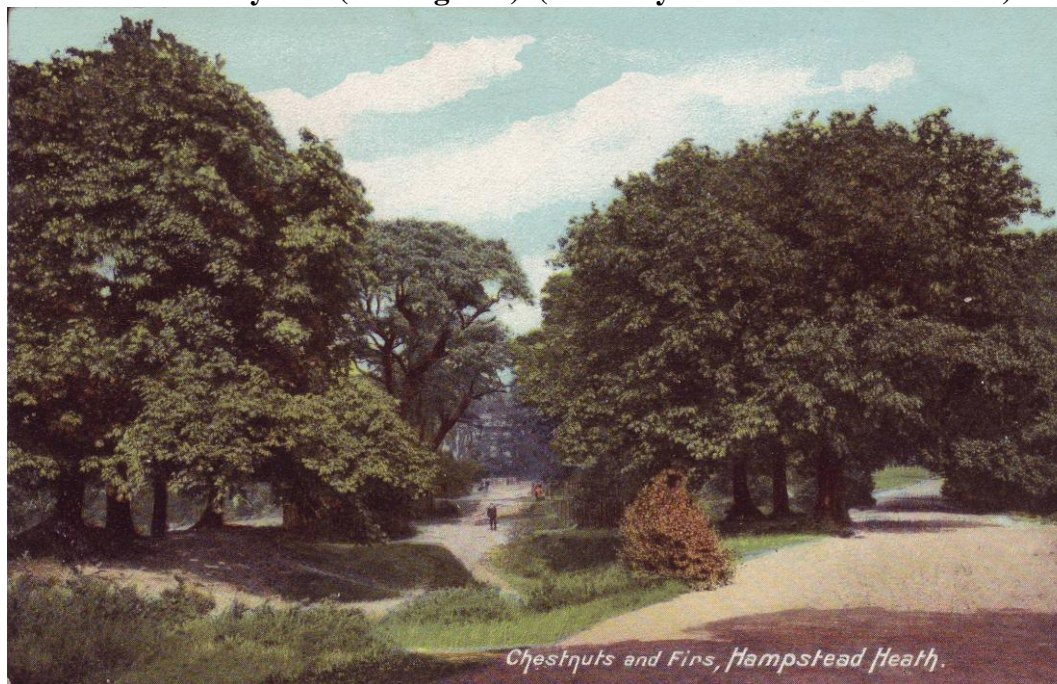
Figure 4 below shows the fir avenue in approximately 1910 and shows Turners 'The Firs' house in the background which is now 3 separate dwellings called Casa Maria, the Chantry and the White house.

Figure 4: **Firs Avenue and 'The Firs' house. C.1910 (courtesy of Michael Hammerson)**



The postcard below is believed to show the junction of the firs avenue and where it joins the existing sandy road/ride. Of interest are the trees to the right of the picture which are believed to be in the location where 2 mature horse chestnut trees are currently found.

Figure 5: **Firs Avenue and Sandy ride (looking east). (Courtesy of Michael Hammerson)**



The site has been actively managed over the last 10 years and has been under a 5 year cyclic regime whereby a section is coppiced with selected trees removed and bramble grubbed out. The centre of the ride site has also been scythed or mown once during mid-summer to prevent encroachment onto the path.

1.6 Natural and human-induced trends

The site is bordered by secondary woodland and trees frequently seed in bare areas. If not managed the open areas would soon develop in scrub and then woodland

1.7 External influences

In the vicinity of the Sandy Heath ride in the pits and hollows from the aforementioned sand digging there is erosion caused by bike riding. In areas of newly managed ride cycle tracks have occurred taking 'advantage' of the newly opened areas.

2.0. Evaluation

2.1 Natural landscape

Rides can provide a varied and flower rich vegetation for a variety of invertebrates and the Sandy ride due to its aspect and varied topography provides opportunities for flora and fauna of both scrub and open habitats. Rides should be managed in rotation to provide structural diversity and a variety of microclimates. The Sandy ride has been actively managed as a ride for nearly 10 years and has a good diversity of structure and established flora. The number of trees growing within a ride should be limited otherwise too much shade is cast for flowering plants to thrive successfully. The Sandy ride has a number of non-native tree species which cast shade and can reduce the floristic diversity.

No other such ride sections exist on the Heath, with other paths running through either short mown grassland or through wooded areas with little or no graduation from short vegetation to trees.

2.2 Public and educational uses

Due to its location little educational use is possible but the ride provides a much used pedestrian link from the Spaniards to North End.

2.3 History and built environment

The site is located on the old 'Sandy road' and should be maintained as a thoroughfare.

2.4 Overall vision

Maintain a woodland track with a graduation of vegetation from short turf to canopy trees.

Encourage the growth and spread of wildflowers for invertebrates

Manage on rotation to allow for a variety of different vegetation heights and types throughout the section.

Maintain access along the ride section.

2.5 Relevance to achieving the 2007-2017 Hampstead Heath Management Plan

Overriding Objectives, Essential Actions and Aspirational Goals from Part I of the Hampstead Heath Management Plan which are particularly relevant to the management of the Flagstaff and Sandy Heath gorse sites are as follows:

NL1: Retain and enhance the Heath's habitats and natural resources to enable continued quiet enjoyment and appreciation of the natural world by its visitors.

The following policies from the Natural Landscape chapter of the Part II Management Plan for the Heath are particularly relevant to the Sandy Heath ride site

Policy 16: The existing areas of woodland and scrub will be managed to protect and enhance their nature conservation importance and improve their distinctiveness.

Policy 19: Woodland structure will be diversified by creating further glades, undertaking thinning and coppicing, and possibly pollarding.

Policy 20: Woodland edge habitat, i.e. a graduation from trees or shrubs to long grass, will be encouraged.

3.0. Prescription and work programme

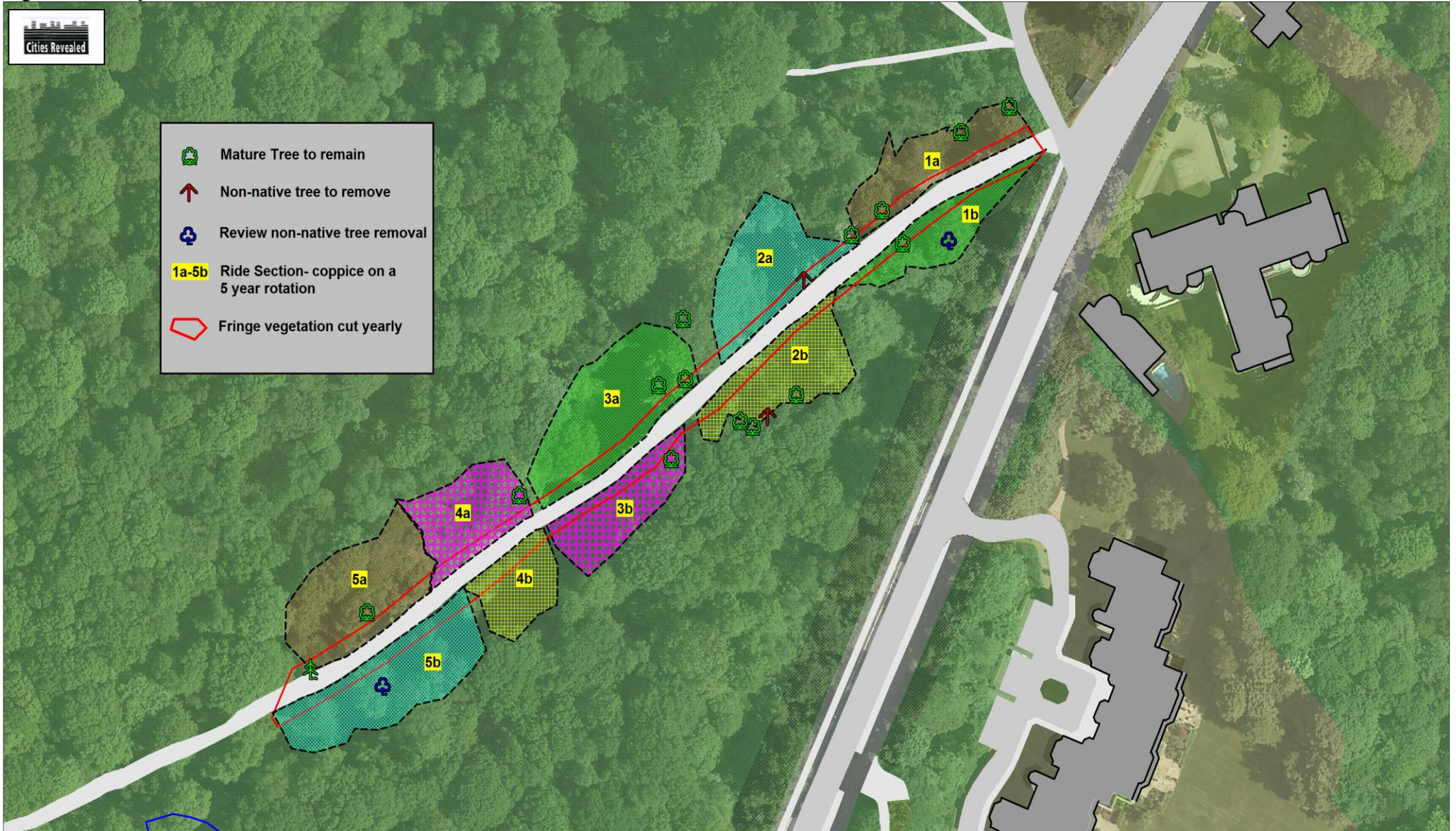
The site should be managed in rotation to ensure a mosaic of heights and age structures to provide a variety of conditions for invertebrates and birds. It is recommended that the current rotation cycle of 5 years should be continued. This rotation is subject to review. Due to the different aspect and terrain each section will have slightly different vegetation but should consist of a mixture of scrub and wildflowers. In order to increase the structural diversity the ride is actually divided into 10 definable sections with 2 specified sections to be coppiced in each year.

Young and sapling trees within each compartment should be coppiced during each cycle and large bramble growth grubbed out. Any non-native saplings should be grubbed out.

Selected larger non-native trees within each section should ideally be removed to increase light levels to each section. There should be a periodic review (10 years) of the trees on the fringe of the ride section to ensure lateral limbs do not begin to cast too much shade. Lifting of these limbs may then be necessary. It should not be necessary to remove any other trees from the ride sections, but any natural loss or decline would not be detrimental to the ride habitat.












A 1m-3m non-linear strip along the vegetated fringe of the central path should be cut on a yearly basis to allow shorter herbage and wild flowers to flourish.

Figure 6: Sandy Heath Ride 2013







3.1 Regular management tasks

Sandy Heath Ride Site Objectives

Objective	Prescription	frequency	Month(s)	Years	Who by	Priority : low, medium or high
Rotational coppice to maintain vigour and different age ranges. 1a-5b.	Coppice or grub trees in ride section  +  . Grub out mature bramble + rake site. If possible one section should be cut early winter and the 2 nd late winter.	Every 5 years	October-February	2013 +2018	Cons Team/ Volunteers	High
	Coppice or grub trees in ride section  +  . Grub out mature bramble + rake site. If possible one section should be cut early winter and the 2 nd late winter.			2014 +2019		
	Coppice or grub trees in ride section  +  . Grub out mature bramble + rake site. If possible one section should be cut early winter and the 2 nd late winter.			2015 +2020		
	Coppice or grub trees in ride section  +  . Grub out mature bramble + rake site. If possible one section should be cut early winter and the 2 nd late winter.			2016 +2021		
	Coppice or grub trees in ride section  +  . Grub out mature bramble + rake site. If possible one section should be cut early winter and the 2 nd late winter.			2017 +2022		
Maintain access and floristic edge to the ride. 	Mow or scythe a 1m-3m non-linear strip along both edges of the ride section.	Every Year	July	All	Cons Team/ Volunteers	High

3.2 One-off tasks

Objective	Prescription	Month(s)	Year	Who by	Priority	Est. cost
Remove non-native tree to increase light levels. 	Remove sycamore from section 2b.	October-February	2014	Cons Team	Medium	Local Budget
Remove non-native tree to increase light levels. 	Remove Norway maple from section 2a.	October-February	2016	Cons Team	Medium	Local Budget
Review removal of non-native tree 	Review + possibly remove non-native Turkey oak from section 1b.	October-February	2015	Cons Team	Medium	Local Budget
Review removal of non-native tree 	Review + possibly remove non-native Turkey oak from section 5b.	October-February	2016	Cons Team	Medium	

4.0 Review

Author	Date	Task	Observation, event or alteration to task

5.0 References

1. Forestry Commission. 2005. Managing woodland open space for wildlife. English woodland grant scheme. Operation Note 011.
2. British history online. 2013. Sourced from 'Hampstead: North End, Littleworth, and Spaniard's End', *A History of the County of Middlesex: Volume 9: Hampstead, Paddington* (1989), pp. 66-71. Available at www.british-history.ac.uk/report.aspx?compid=22641
3. Farmer A, 1984, Hampstead Heath, Historical Publications Ltd.