Woodland adjacent to Monument Drive

Grassland adjacent to Monument Drive

Parking adjacent to Monument Drive

Monument Drive

Parking adjacent to Monument Drive

Parking adjacent to Monument Drive

Monument Drive

C. Beech woodland in which ash and hazel are more abundant and holly is infrequent or absent, located largely on the scarp slope, broadly referable to W12 Fagus sylvatica – *Mercurialis perennis* woodland with a more base-rich character. These woods are where the most interesting ground-flora species are found within the study area, and are characteristic of the wider North and South Downs woodlands;

D. Stands of very dense conifer plantation in which there is little or no shrub-layer or field-layer vegetation, found in Flat Isely, Sallow Copse and Old Copse. Whilst botanically of little or no interest, these stands do provide potentially valuable habitat for some the sites' notable bird species;

E. Stands of very dense regenerating beech, with even-aged trees and little or no shrub-layer or field-layer, found on the scarp slopes around Duncombe Terrace and Hanging Isely;

F. Stands of dense regenerating ash, with even-aged trees but a better field-layer than the beech stands, in which bramble, bracken and *Deschampsia caespitosa* are abundant;

G. An area in Pitstone Common, closely approximating wood pasture, with scattered silver birch in amongst bracken (which has been cut or rolled to reduce its dominance, and bramble;

H. Bracken scrub with brambles – whilst this appears abundantly under the canopy of the W10 and W14 woodlands, it is also present in small open glades with no canopy trees where it forms a vegetation type in its own right – W25 *Pteridium aquilinum – Rubus fruticosus* underscrub;

I. Gorse (*Ulex europaea*) scrub – there is only one stand of this vegetation within the study area, in a small clearing on the scarp slope of Duncombe Terrace;

J. Vegetation of rides and small clearings, in which *Brachypodium sylvaticum* is abundant along with *Deschampsia caespitosa* and various shade-tolerant herbs. The best examples of this type are at the northern end of the study area along Duncombe Terrace;

K. Grassland in Meadleys Meadow and dairy fields south of Thunderdell Cottages, as well as tussocky grassland north of rail copse;

L. Grassland by Outwood Kiln Cottages.

Ancient Woodland and Veteran Trees

4.24 Two parts of the study area are identified as ancient woodland on the Ancient Woodland Inventory Figure 4.2. In the south, this includes Old Copse, and in the north it includes Sallow Copse, as well as parts of Hanging Isley on the scarp slope and Flat Isley on the plateau. There is also a small compartment, currently conifer plantation, which is listed as Plantation on Ancient Woodland Sites (PAWS).

4.25 The study area is notable for the large number and the wide distribution of ancient and veteran trees Figure 4.3. Many of these have the character of open grown trees, even though they may now be within a closed woodland canopy. There is a particularly high density of trees in parts of Old Copse and the eastern part of Sallow Copse, and not surprisingly there are far fewer on the

scarp slope (which has a higher proportion of younger and secondary woodland) than on the plateau. The tree are especially notable because of their importance for invertebrates that live on dead wood and wood-decay fungi.

Notable Plants

4.26 In addition to the importance of the woodland habitats, the study area and the wider estate are notable for the presence of many locally rare plants. However, there are no recent records of coralroot (*Cardamine bulbifera*) – a species mentioned in the SAC – from the study area or surrounding estate. This woodland species is known from dry woodland slopes over chalk in the Chilterns, and from damp woodlands over clay in the Weald.

4.27 Hearn et al. (1997) notes records of several nationally notable plants from the estate, including orchids, mosses, liverworts and heathland plants (including heather, adder's-tongue fern and meadow-rue). Of those mentioned in the 1997 report, only three turn up in the data search carried out for this study:

- *Cephalanthera damasonium* (white helleborine): an orchid found in calcareous woods – there is one record at Aldbury Common from 1995 and a record of a population of 50 plus plants from the scarp slope to the east of Meadleys Meadow from 2017;
- *Hordelymus europaeus* (wood barley): a grass found in woodlands – there is one record at Clipper Down from 1996; and
- *Ophrys insectifera* (fly orchid): an orchid of calcareous woods – there is one record at Clipper Down from 1996.

4.28 The data search has records of some other local rarities such as *Mentha arvensis* (corn mint), *Montia fontana* (blinks), *Veronica officinalis* (heath speedwell) and *Calluna vulgaris* (heather) as well as the bryophytes *Lophozia capitata* and *Leucobryum glaucum*. It is possible that *Neckera complanata, Plagiochila asplenoides* and *Diplophyllum albicans* (three other species mentioned in Hearn) may also still be present in the study area although there are no records in the data search. The best habitats for bryophytes within the study area are on dead wood in damp, sheltered locations. The plateau woodlands are likely to be less important for bryophytes.

Ponds

4.29 There are up to 15 ponds within the study area, although the extent to which they hold water will vary seasonally and from year to year. There is little information available about the status of these ponds and their biota. Even the dry and shaded ponds, which may be heavily silted, can be of biological value. Hearn (1997) noted plants such as *Alopecurus aequalis* (orange foxtail) and *Lemna polyrhiza* (great duckweed) from ponds within the estate. These relatively uncommon plants and others of note may still be present in some ponds. Aside from their botanical interest the ponds may be of value to fauna, including amphibians, invertebrates and bats for example.

Grassland

4.30 The majority of grassland within the study area is of low botanical diversity, comprising either the agriculturally improved Dairy Fields, or the amenity grassland around Monument Drive and the visitor centre. There are two main exceptions to this: a rough grassland field by the brickworks in the south of the study area, and Meadleys Meadow. The southern field has a tussocky sward that has developed as a result of the absence of intensive grazing or cutting. It is grazed by rabbits and

deer, which maintains some patches of a shorter and finer sward, but the majority is dominated by cock's foot and false oat grass. It is botanically species-poor, but its structure is more varied that the other grassland within the study area.

4.31 Meadleys Meadow was formerly divided across the middle into two fields. The northern half is largely species-poor improved grassland, dominated by perennial rye-grass and Yorkshire fog. There is very little diversity in the broad-leaved herb component, with only common species such as dandelion (*Taraxacum officinale* agg.) and ribwort plantain (*Plantago lanceolata*) being at all abundant. The southern half has a much more diverse sward with additional grasses including sweet vernal grass (*Anthoxanthum odorata*) and red fescue (*Festuca rubra*) and forbs including brid's foot trefoil (*Lotus corniculatus*), meadow vetchling (*Latyrus pratensis*) and black knapweed (*Centaurea nigra*). Three species of waxcap fungi were recorded here: blackening waxcap (*Hygrocybe conica*), crimson waxcap (*Hygrocybe punicea*) and snowy waxcap (*Cuphophyllus virgineus*).

Present Day Fauna of the Study Area

Bats

4.32 The data search contains records of eight bat species:

- **Barbastelle**;
- **Brown long-eared;**
- **Common pipistrelle;**
- Daubenton's;
- Natterer's;
- **Noctule;**
- Serotine;
- **Soprano pipistrelle.**

4.33 Of these species, five were (highlighted in bold in the list above) captured during the harp trapping and mist netting surveys of the estate in 2017. Of chief interest amongst these are the records of barbastelles – one of the rarer bat species in the UK. Barbastelles have been trapped from two locations recently (see Figure 4.4). Barbastelles are predominantly a woodland bat, and they are most commonly found roosting in damage features on oaks, such as frost cracks, lightning damage and under lifted bark. As well as oaks they have been found roosting in sweet chestnut and silver birch.

4.34 Roosting bats have been conformed from some of the buildings within the study area including Old Copse Lodge and Monument Cottage.

4.35 The whole study area has huge amounts of potential roosting habitat in the trees. This includes not just the larger obvious features in ancient and veteran trees, but numerous smaller features such as frost cracks in small-diameter trees. Bat frequently move between tree roosts – even whole maternity colonies may move part way through the maternity period to a new roost. Therefore, having a wide range of available features in different locations, and a ready supply of new roosting features over time, provides potential for a sustainable population of bats.

4.36 The woodland and small amounts of open habitat provide good quality foraging areas for a range of bat species. The closed and under-managed nature of the woodland, and the lack of large area of wood-pasture and rides, limits the quality of the study area for bats.

Birds

4.37 The study area is clearly important habitat for a very wide range and a great abundance of breeding birds. A study of just the Monument Drive area in 2010 recorded an assemblage of 24 breeding species including five notable species:

- Marsh tit;
- Mistle thrush;
- Song thrush;
- Willow warbler; and
- Stock dove.

4.38 The first four species are Red Listed and stock dove is Amber List. The recorded breeding density indicated that the habitats were not in poor condition, but were unlikely to be optimal breeding habitat, as breeding densities were slightly below average for some species. The presence of deer and dogs was raised as a potential reason for the lower than average breeding densities.

4.39 Many other notable species are present in the desktop data records from the study area and the surrounding area. Three owls have been recorded: tawny owl, barn owl and little owl. The study area provides ample woodland habitat for these species although foraging area suitable for barn owls is somewhat limited – only parts of Meadleys Meadow and the open field by the brickworks obviously provide large areas likely to support good populations of voles and other small mammals. Amongst the records are many of seasonal visitors such as redpoll, brambling and one record of a cuckoo by the Bridgewater Monument from 2014. Raptors recorded include sparrowhawk, kestrel, peregrine falcon, buzzard, goshawk, marsh harrier, red kite, hobby and merlin. Montagu's harrier and osprey have also been recorded (from Pitstone Hill), presumably as transient birds on migration.

4.40 It appears likely that the populations of some of the species for which the SSSI was designated may have declined in the study area. However there is limited data on which to base this conclusion other than their absence from the data records or the survey of Monument Drive (which while it is likely to present a very good representation of the actual avifauna of this area, does not take in the wider study area).

Invertebrates

4.41 The invertebrate fauna of the study area is rich and diverse and contains numerous nationally notable species. Figure 4.4 gives an indication of the wide distribution of these notable records (although this reflects sampling effort as much as it does actual presence or absence). The study of the invertebrates of Monument Drive and Meadleys Meadow (Foster, 2018) gives an idea of the importance of the study area for invertebrates. The survey recorded nationally notable invertebrates including:

- 16 nationally notable species of Coleoptera (beetles);

- three nationally notable species of Diptera (one fly and two gnat species);
- one nationally notable species of Hymenoptera (the brown tree ant); and
- three nationally notable species of Lepidoptera (all three are moths).

4.42 Similarly, a study of the wider estate for saproxylic invertebrates gives an indication of the importance of the site for these species, largely associated with ancient and veteran trees. This report places the estate (including the study area) amongst the top ten sites nationally, and of international importance for this group of invertebrates.

4.43 Despite the various surveys carried out and the presence of knowledgeable staff, there are no records of stag beetles from the study area. There are, however, four records from the 10km square in which the site is located. Given the large amount of suitable habitat, it is possible that stag beetles are present within the study area.

Terrestrial Mammals

4.44 There is one record of a dormouse from Sallow Copse within the study area, and three other records from the surrounding area. This suggests the species may be present throughout the study area, which is broadly suitable habitat although the limited amount of shrub-layer vegetation and the generally homogenous structure may be a limiting factor.

4.45 There is one record of a water vole from 1987, outside of the study area. This species is unlikely to be present in the study area. Other species in the data search that may well be present in the study area include badgers, hedgehogs, brown hares and harvest mice (these latter two species are less likely as they prefer open habitats). Non-native species include muntjac deer, grey squirrel and edible dormouse, all of which are likely to be having an adverse effect as a result of tree damage and browsing off re-growth.

Amphibians and Reptiles

4.46 Woodland is ideal habitat for great crested newts and there are several ponds. There are records of great crested newts from outside of the study area (in ponds that are over 250m from the study area boundary), but a recent eDNA study of ten ponds at the estate showed them to be absent from all of the tested ponds, and therefore likely to be absent from the study area.

4.47 There are desktop records of three other amphibians from within and adjacent to the study area:

- Common frog;
- Common toad; and
- Midwife toad (although staff suggest this has probably now gone from Thunderdell Lodge Pond).

4.48 There are also anecdotal records of the other two common newt species (smooth and palmate newts.

4.49 Three reptile species have been recorded from the study area: grass snake, common lizard and slow-worms. All three reptiles need open areas in which to bask and therefore probably have only small populations in discrete areas rather than being abundant and widespread across the study area.

Comparison of the Study Area with the SAC and SSSI Features

4.50 The study area contains extensive representative examples of the primary qualifying feature of the SAC i.e. beech forests belonging to the W10, W12 and W14 NVC categories. These vegetation types contain a wide range of variation, in which beech, oak and silver birch are the dominants in the canopy. The evolution and distribution of main woodland types within the study area is firstly a result of the differing soils: broadly with the W14 beech woodland on the deeper clay-with-flints on the plateau and W12 beech – dog's mercury woodland on the thinner, more base-rich soils on the scarp slope. Behind this high-level separation though, there is abundant variety in the vegetation, which reflects the other dominant influence on the landscape – the changing practices of land management over a long history of occupation.

4.51 In a broad sense however, up to 90% of the vegetation within the study area falls within the definition of the SAC's qualifying habitat. This includes some habitats that are, in isolation not directly referable to the qualifying habitat definition (e.g. bramble scrub and dense bracken), but which can be considered as supporting habitats to the SAC qualifying features. The remaining 10% of the study area consists of land uses that are clearly not qualifying features (i.e. hard-standing and site infrastructure, amenity grassland, coniferous plantations). On the basis of this broad-level assignment of the habitats to the qualifying feature, the study area would contain approximately 45% of the total amount of *Asperulo-Fagetum* woodland in the whole SAC.

4.52 As mentioned above, the woodland of the study area is affected by several of the threats identified across the whole SAC, the primary one being the effect of declining traditional woodland and commoners management. Deer and squirrel damage are also apparent throughout the study area, with many trees showing signs of damage. Visitor pressure is primarily seen around the Monument Drive area.

4.53 The study area represents approximately 40% of the total area of the Ashridge Commons and Woods SSSI. It continues to support representative examples of the habitats for which the SSSI was designated, but the extent to which the bird species mentioned in the citation as being especially notable are still present is not known for certain.

4.54 Table 4.1 lists the notable bird species mentioned in the SSSI citation, and assesses the likelihood of their continued presence here based upon their habitat requirements and the presence or absence of recent records or survey results. Three aspects common to these species are

- it is not clear whether these species are still present within the study area;
- there are recent records for most of them from the surrounding area;
- the study area may be lacking in suitably open and undisturbed habitats for several of the species.

4.55 However given the large area and the presence of recent records, it seems likely that some at least of these species are still present if only in low numbers, or could readily re-colonise subject to suitable management. Hearn et al. (1997) noted of the estate that:

> *"breeding species include woodcock, yellowhammer, lesser spotted woodpecker and tree pipit; firecrest sometimes occur in the breeding season and probably breed in some years in mature conifers; redstart and hawfinch have declined drastically and may no longer breed; nightjar, nightingale, stonechat have been reported previously, but though stonechat occur*

occasionally on passage none are known to breed on the property."

Table 4.1: Notable bird species from the SSSI citation and the likelihood of their continued presence within the study area

Species	Broad Habitat Requirements	Specific Requirements for breeding	Specific Requirements for foraging	Suitability of the Study Area	Records from the Study Area
Wood Warbler	Climax deciduous woodland with at least 70% closed canopy and little ground cover. They are characteristic of sessile oak woodland. Although they favour oak woods, they can be found in other woodlands providing there is a low amount of shrub and mature trees are present.	Females build domed nests in low scrub or on the ground, often on a slope, close to a small bush, which provides a perch. There is preference for intermediate field cover, to provide adequate protection from predation. This preference results in selection of areas with reasonable cover of vegetation, such as bramble (Mallord *et al*., 2012).	A preference for invertebrate-rich oak, for foraging, may result in selection of areas with a more diverse tree community within an oak-dominated wood (Mallord *et al*., 2012). Along with lower trees and shrubs such as hazel and rowan which are used for perching.	Excellent woodland habitat although there is potentially a lack of dense, undisturbed under-storey vegetation for nesting.	There are two recent records from adjacent to the study area, north of Sallow Copse, on Ivinghoe Common.
Common Redstart	Found in open areas with sparse vegetation and mature trees (birch and oak). Inhabits open forest and woodland, including parkland, forest clearings and margins preferably with semi-open undergrowth.	Redstarts breed in various habitats including open forests with clearings to urban parks. They nest usually in a hole in a tree about 6m up but will also make use of walls, old stumps or nestboxes. They prefer to nest on the edge of woodland clearings.	The redstart feeds on insects taken from the ground, on tree trunks or in the air (Kristensen *et al*., 2013). They also eat berries in autumn. Bare ground and sparse vegetation cover provides typical hunting grounds. It flies out from a perch (bushes and low branches of trees) to catch prey and returns to the perch to eat it.	There is plenty of suitable nesting habitat in the numerous veteran trees throughout the study area, but there is possibly a lack of open habitat suitable for foraging.	There is one record from 2016 at Pitstone Hill, and two records from 2011 and 2016 at Aldbury, suggesting the species is still present in the area, but there are no records from within the study area. It is regularly seen on passage on Ivinghoe hills.

Species	Broad Habitat Requirements	Specific Requirements for breeding	Specific Requirements for foraging	Suitability of the Study Area	Records from the Study Area
Nightingale	Frequents dense undergrowth, favouring a range of scrub and woodland types, often associated with riparian habitats (Holt et al., 2012). As niche specialists they favour particular ages of coppiced woodland with oak standards and a well-defined structure of scrubby thicket to set up territories. The favoured age of coppice would appear to be 4-10 years old (Stuttard and Williamson, 1971). In predominately mature woodland, suitable habitat is confined to the edges or to patches of younger regeneration (Holt et al., 2012). Dense continuous vegetation up to 2m above ground level provides critical cover for singing nightingales (Hewson et al., 2005). The presence of other singing individuals may be used to identify potential habitat, so sites with no or very few singing nightingales may not generate enough stimulus for new individuals to settle (Holt et al., 2012).	Nightingales may be found breeding in a range of lowland habitats providing there is a covering of dense vegetation (bramble and nettle being particularly favoured) to conceal the nest (Morgan, 1982). Deciduous woodland especially oak is the most commonly recorded breeding habitat. Or a mix of oak and birch with hazel providing a dense under-storey. Thickets of birch, holly, blackthorn and hawthorn are also frequent. Nests are situated low down in the vegetation (the average height being 8inches above ground). The highest concentrations of breeding nightingales occur where all these habitat elements are in close proximity (typically scrub mosaics, usually at low altitude and often close to water). The ideal habitat structure is comprised of dense dome-like patches of scrub, featuring bare ground beneath the canopy and a dense curtain of vegetation at the sides to provide suitable nest sites (Holt et al., 2012).	Nightingales forage on the ground picking through low vegetation as they hunt for small insects and invertebrates, especially beetles and ants. They often use the bare areas under scrub canopies, but will also use short vegetation such as rides or unmown margins surrounding scrub thickets. They will also eat berries in autumn.	There is perhaps a lack of more open habitats suitable for nesting and foraging, with the vast majority of the study area consisting of closed canopy woodland. The presence of dogs throughout the study area could also limit the suitability for this species.	There is one record from 2007 at Aldbury Nowers, approximately 1.5km west of the study area, but there are no records from the study area.

Species	Broad Habitat Requirements	Specific Requirements for breeding	Specific Requirements for foraging	Suitability of the Study Area	Records from the Study Area
Firecrest	The species is usually found in coniferous forest with spruce and fir. It is fairly common in mixed forest as well as deciduous stands with a few mature conifers interspersed. Also present in broadleaf woodlands with an abundance of oak and alder.	Breeding occurs in dense conifer plantations and in mixed or mainly broadleaved woodlands. Nests are usually 9-18m above ground in vertical twigs of mature conifer trees such as spruce and firs, in a climbing plant or deciduous tree (especially oak).	Firecrests often feed at low levels over a range of habitats including both coniferous and mixed woodland. They are insectivorous with their diet primarily consisting of arthropods such as spiders. They rarely forage in dense foliage. Firecrests hover at the tip of branches picking prey while moving continuously, they may also take insects trapped in spider webs. They also glean into clear foliage with preference to the upper side of leaves and branches.	There are several conifer plantations, and scattered conifers throughout and adjacent to the study area.	There is one record from 2015 in Sallow Copse, just north of the study area (and close to a conifer plantation), a record from 2009 in Ivinghoe Common, and two records from 2014 and 2015 in Ashridge Park (between the study area and the house). Staff note in 2017 and 2018 singing males have been heard on the edge of Thuja trees on Flat Isleys.
Lesser Spotted Woodpecker	Present predominately in mature open oak woodlands with a large amount of standing deadwood. Can also be found in parkland and orchards. Abundance may also be linked to the presence of a close water source.	Dead trees and decaying branches provides soft timber for them to build their nest. Breeding has been reported to coincide with oak bud-burst (Charman *et al*., 2010). This is thought to be an adaptation to synchronise the beginning of the nestling period to the peak of abundant food resources (Ek, 2016).	Deadwood is also an important foraging resource. Oak is an important species for foraging. From autumn to spring they feed on wood-living insect larvae (primarily long-horn beetles) extracted from dead branches on living trees. Throughout the breeding season a high proportion of their diet comprises surface-living insects, such as aphids and caterpillars and bark dwelling invertebrates (Charman *et al*., 2010).	There is abundant suitable nesting habitat in dead and veteran trees throughout the study area. The study area also provides good foraging habitat.	There are two records: one from 2012 and 2018 on Ivinghoe Common, just north of the study area; and one for Monument Drive in 2015.

Species	Broad Habitat Requirements	Specific Requirements for breeding	Specific Requirements for foraging	Suitability of the Study Area	Records from the Study Area
Hawfinch	Broad-leaved Woodland Found in large areas of mature broadleaved woodland, favouring areas of open glades. Favours oak-hornbeam and also mixed forest (Langston *et al*., 2002).	Nests are built in a tree up to 14m. Prefer a direct flight line to their nest and canopy gaps and edges of glades and rides provide for this (Kirby *et al*., 2015). Hawfinches nest mostly in hornbeams and alder is another favourite (Tomialojc, 2005).	Their diet comprises buds, seeds and shoots. They eat seeds from trees such as cherry, hornbeam and beech. In summer they also feed on insects. Food is collected at all levels in trees and on the ground. Elm trees produce flowers and seeds in early spring, when availability of other resources is low (Kirby *et al*., 2015).	The study area contains moderately good habitat for hawfinches	There are no records of this species from within or close to the study area, although the SSSI citation states this species had a strong breeding population within the SSSI. There is anecdotal record of hawfinch using cherry and hornbeam along Old Copse Drive but now gone.

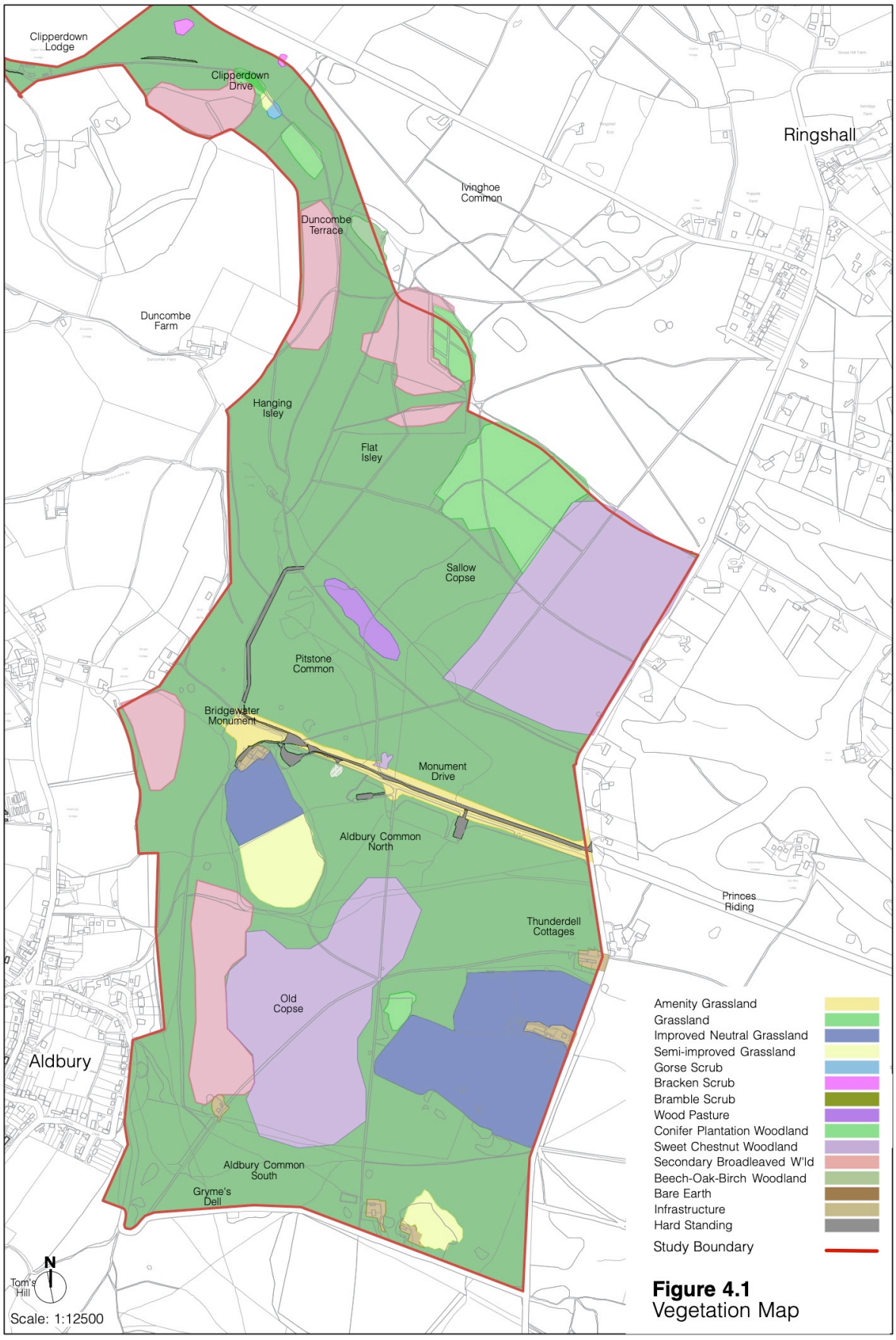

Figure 4.1
Vegetation Map

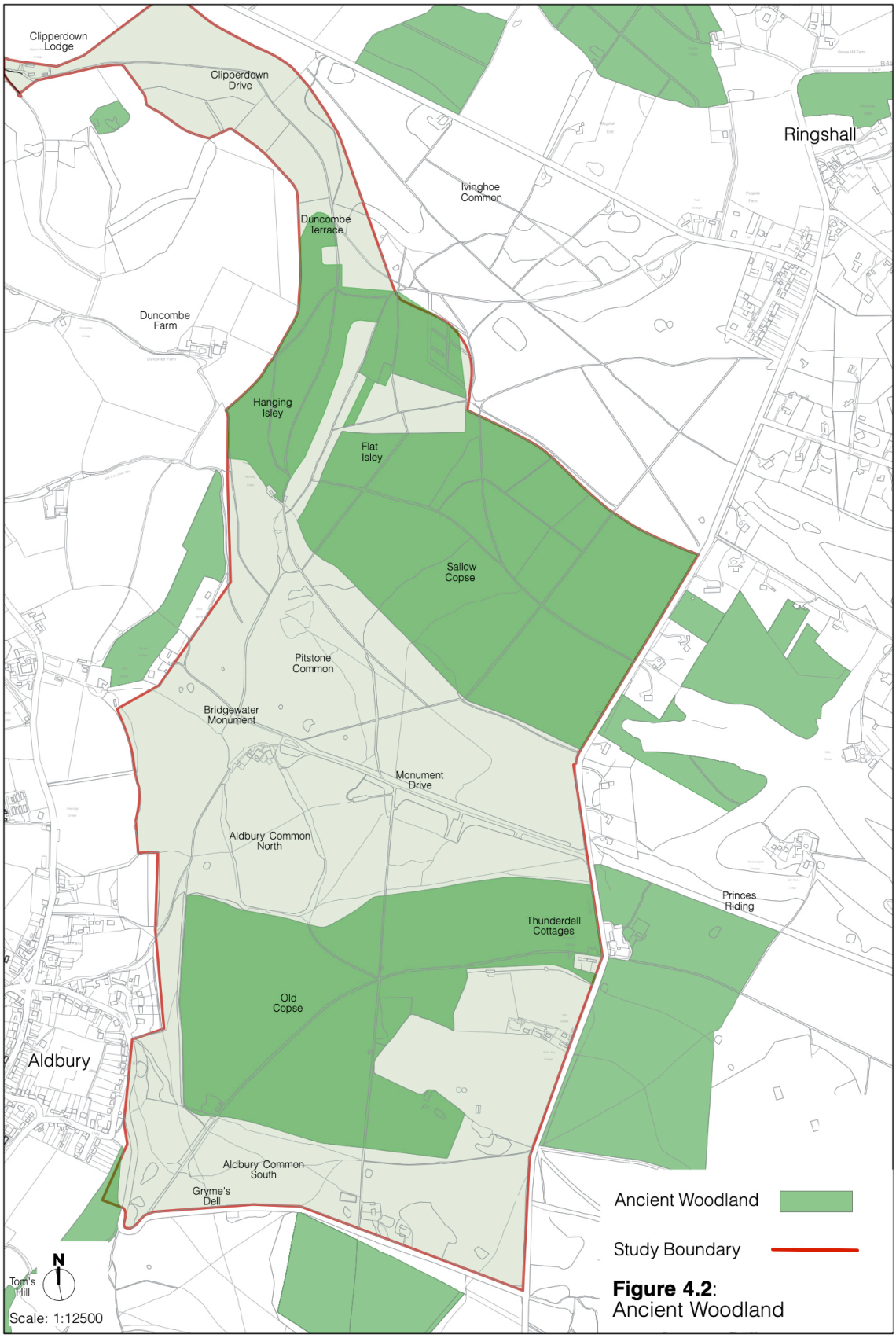

Figure 4.2:
Ancient Woodland

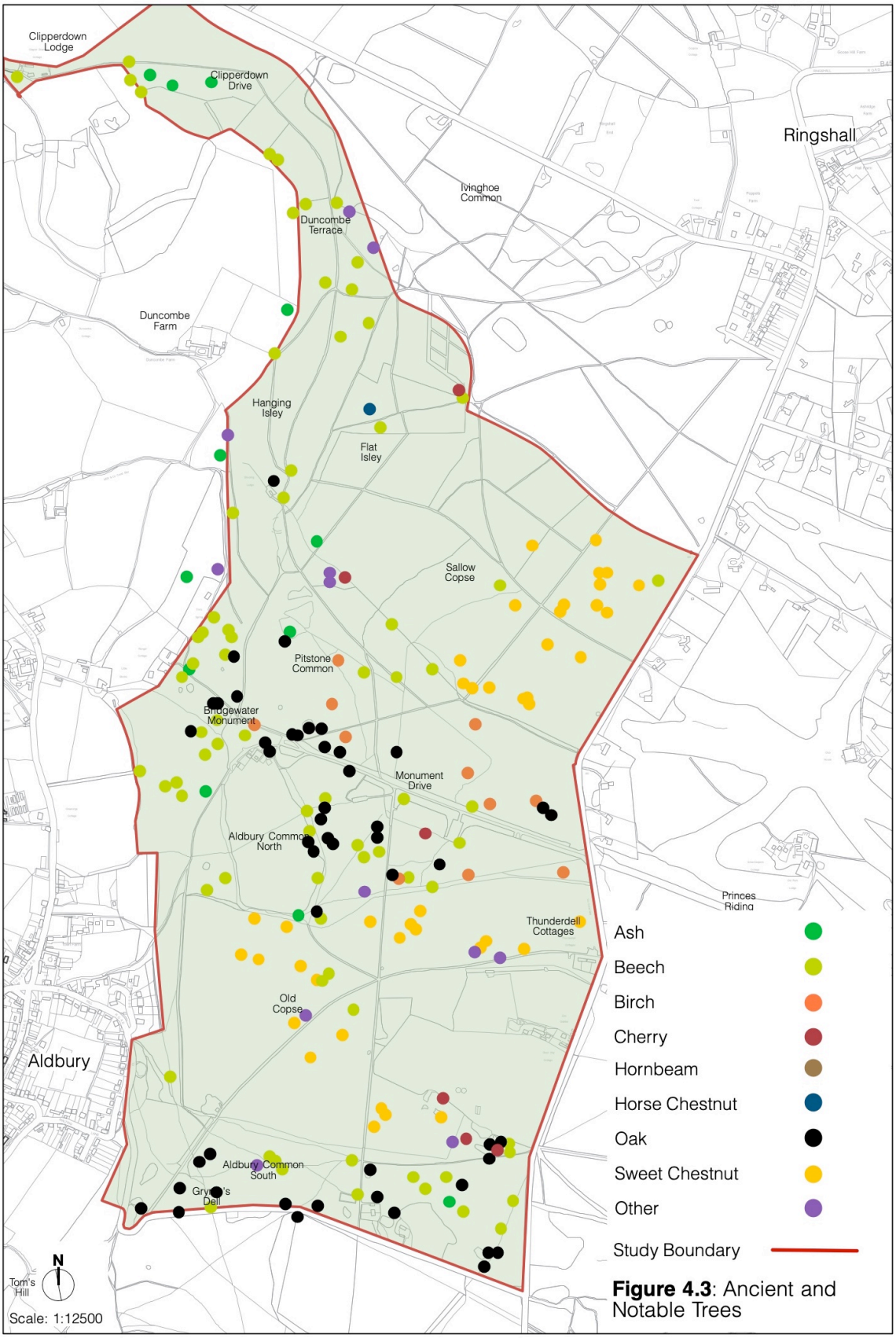

Figure 4.3: Ancient and Notable Trees

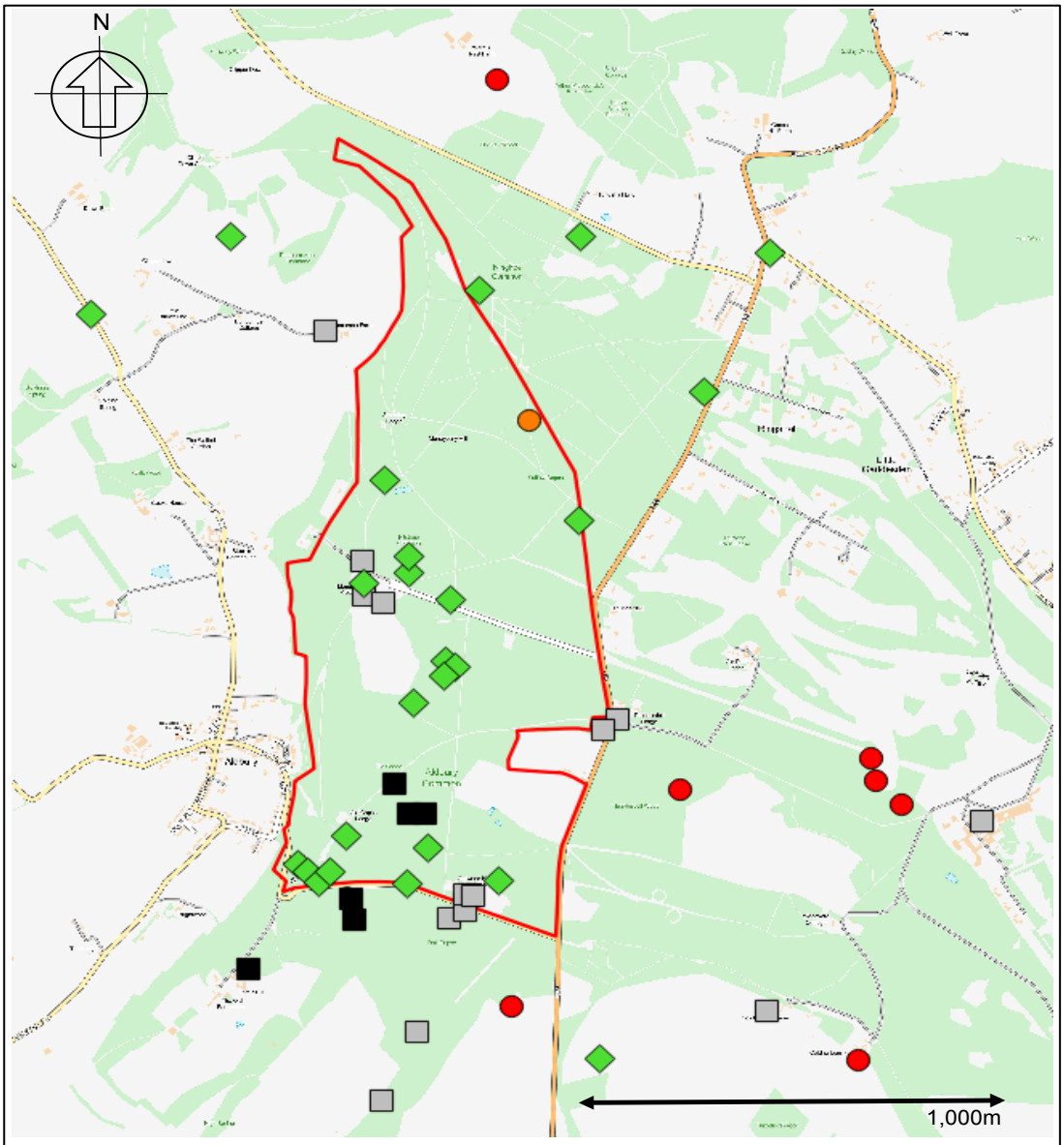

Figure 4.4: Map of Nationally Important Species

- Barbastelle bat roosts
- Other bat roosts[1]
- Invertebrates
- Dormouse
- Great crested newt

[1] Bat species recorded from Ashridge Estate comprise:

- Barbastelle
- brown long-eared
- common pipistrelle
- Daubenton's bat
- Natterer's bat
- Nathusius' pipistrelle
- notcule
- serotine
- soprano pipistrelle
- whiskered bat

Figure 4.4 Nationally Important Species

5 Archaeology

Introduction

5.1 This section is intended to provide an overview of the archaeological aspects of the study area. It identifies the major periods evident to date, together with a summary of the types of features that comprise each, information about interpreting the evidence, potential for further evidence and the key significances. This leads to a list of broad issues and policies for archaeological conservation.

5.2 This section has been reviewed by Gary Marshall and Angus Wainwright, NT Regional Archaeologists respectively for the London and South-East, and East Regions, who both have an extensive understanding of the study area within the wider Ashridge estate.

Sources

5.3 This section is largely informed by the following documents, the first three arising from the National Trust's archaeological survey of the Ashridge estate, the fourth arising from a specific study of the WWII camp remains on Monument Drive for the National Trust:

Wainwright, Marshall and Salkeld (Jan 2010) Vol. I *Land Use History*
Northamptonshire Archaeology (Jan 2010) Vol. VII Ivinghoe Common, Pitstone Common, Isleys, Old Copse, Aldbury Common
Oxford Archaeology (2015) Vol. V Clipper Down, Crawley Wood and Down Farm (East), Duncombe Farm, Stocks Farm, Wards Hurst Farm (South)
Oxford Archaeology (2015) Second World War Army Camp Ashridge Estate

5.4 The 2010-15 volumes form part of the National Trust historic landscape survey for the estate, comprising eleven volumes. Vol. 1 is an overarching land use history with ten further volumes relating to landscape character areas based on units of historic land management. Vol. 7, area F, which includes most of the study area, is located in the central part of the Estate, covering 907 acres or 18% of The National Trust's holdings. It covers parts of three parishes – Ivinghoe, Pitstone and Aldbury – and includes most of the three historic commons within these parishes, plus areas of woodland enclosed from the commons in the medieval period and during the early C17 – Hanging Isleys, Pitstone Common Wood, Old Copse and Rail Copse. The north end of the study area is included in Vol. 5, area D, including the north end of Duncombe Terrace leading into Clipperdown Drive with the associated lodge and gateway. The 2015 OA analysis of the World War II camp gives more detail of this phase, its significance and its survival.

5.5 The following information is largely drawn from these reports, amplified where further information or analysis is available, and by discussions with the Trust's Regional Archaeologist, Gary Marshall. Since then there have been no further major discoveries, but a detailed LiDAR survey of the area being carried out by the Chilterns Conservation Board's HLF-supported 'Beacons of the Past' hillfort project (data forthcoming in May 2019) may offer significant additional information and enable re-evaluation that may change the understanding of the archaeology.

5.6 Aspects of the local historical context of two of the three parishes are set out in detail in J. Davis, *Aldbury the Open Village* (1987), and H. Hanley, 'The Inclosure of Pitstone Common Wood in 1612', *Records of Bucks*, vol. 29 (1987), 175-204.

5.7 More detailed information on particular features is given in the Gazetteers in Vols. 5 and 7 and in the OA WWII report.

Summary of Key Phases of Evidence

Period	Evidence	Notes
Bronze Age	Mounds along scarp: two at Monument (SM, 152802 & 03); Bell Barrow on Moneybury Hill (SM, 152780)	Part of a group of barrows along the scarp, and hill fort at Ivinghoe Beacon.
Iron Age & Roman	Roman farmsteads (temple or villa, SM, 152806); industry: kiln; enclosures; fields; coins (C3), farming enclosures and banks.	Other settlements nearby in Vale and valleys; major roads in vicinity.
Medieval to 1500	Roads and farmstead (e.g. Isleys); tracks up scarp for stock to reach commons; industry: quarry pits, clay & Chalk pits; agricultural earthworks: banks, lynchets, ponds; administrative boundaries: parish, county (some possibly from Dark Ages)	Set within context of larger area of commons including north end of Ivinghoe and Berkhamsted (contiguous)
Post Medieval	Old Dairy Farm (not NT)	Few major changes in study area; elsewhere park extended, Lancelot

Period	Evidence	Notes
	Monument Ride (c. late C17, by 1762) Enclosure of Pitstone Common Wood, Old Copse and Rail Copse	Brown working on park c.1760s.
Early C19	Industrial: Outwood Kiln Estate cottages: (Outwood Kiln & Monument Cottages) Lodges: Clipperdown & Old Copse Designed Landscape: Monument (Grade II*), ridings cut out and framed by ornamental planting, Terraces (Aldbury, Duncombe) Routes: public roads (Aldbury road up Toms Hill), minor road realignment, ornamental drives (Old Copse & Clipperdown)	Forms part of a vast estate-wide improvement campaign initiated by 7th Earl in 1803 and continued by the dowager Countess into the 1830s, including building the present mansion, laying out gardens by Repton, building estate cottages, extending park.
World War II	Military encampment alongside Monument Ride Monument Drive.	Set in context of wider use of estate including hospital in front of mansion

Key themes

5.8 Of the near 700 features recorded as part of the Trust's archaeological survey, 85 or so of these features were recorded in the study area (vols. V & VII). The extraordinary number, estate-wide, plus the quality of preservation, and diversity of origin and date, illustrate the importance of the Ashridge estate as a location in the Chilterns where the historical depth and continuity of use of the landscape can be understood. This is paralleled in the number recorded in the study area, their condition and diversity, indicating its importance both within the boundary and as part of the wider Chiltern Commons context.

5.9 Key themes are evident. Evidence in the form of banks and ditches and cross ridge dykes suggests that ownership and control of the landscape in the Late Bronze Age and Iron Age was expressed through the creation of major boundary features. Population increase and immigration may have acted as a spur to the division and control of the landscape. These features must have taken into account practical requirements such as the need to control networks of communication and farming. They may also have taken into account existing ritual and spiritual values attached to the landscape, suggested by the survival of the several barrow groups in prominent locations on the chalk scarp overlooking the vale. Evidence for settlement during this early period is lacking, however, a major discovery of the survey is the extent and complexity of archaeological evidence relating to the Romano-British landscape, suggesting that by the end of this period i.e. c. 400AD, it was organised into a number of farmsteads and divided into a series of regular and irregular fields.

5.10 Other key themes illustrated through surviving evidence are the practice of commoning and the partial enclosure of the commons, after much acrimony between the commoners and the estate, to create both communal and estate coppices. The exploitation of minerals, timber and plants for building purposes, food and fuel, and the movement of people and animals through the landscape, are also evidenced by quarries and surviving tracks and hollow-ways. The survival of such evidence can be explained partly because it has not been destroyed by later cultivation, though some Medieval cultivation does seem to have taken place based on the Isleys farmstead. It is also due to the status of much of the survey area as common, with rights held in common precluding any cultivation.

5.11 During the C19 and early C20 this remained a working landscape, but recreational use was becoming more evident and access to the land both by commoners and the Bridgewaters remained highly valued. The erection of the Bridgewater Monument by the family on the plateau overlooking the vale in 1831-32 is the most prominent illustration of the extensive ornamental layout of the landscape established in the early C19 with a range of ornamental features which overlaid the existing features with relatively little damage or alteration.

5.12 The driving force behind major early C20 changes taking place was the sale and break-up of the Ashridge estate, combined with changing economic circumstances which meant that traditional grazing practices on the commons and on the hills were no longer viable. Wartime usage, though confined to the two brief periods of C20 conflict had a disproportionate impact on the landscape, leaving tell-tale structures which survive to the present day, and indeed serve new purposes, particularly the remains of buildings, the parade ground and Monument Drive.

Interpreting the Site Evidence

5.13 The challenge of interpreting the site evidence is considerably aided by the availability of contemporary documentary evidence. The maps in particular are a key source, beginning in the C17 (e.g. Norden), but only starting in detail relatively late with Grey's 1762 estate map but continuing through the C19 with an excellent sequence of manuscript plans including the Ordnance Surveyor's Drawing (1806), further estate plans, road diversion plans, parish plans and Ordnance Survey at 6" & 25" scale. Jean Davis's work on Aldbury Common and her book are very useful.

5.14 The 2009-10/2015 archaeological reports provide a chronological assessment of human interaction with the landscape, set within the framework of key themes, to some extent divided by parish where this was relevant to the origins of the features. This is based largely on the interpretation of archaeological evidence, alongside a limited assessment of the documentary record, leaving several themes to be explored through a combination of fieldwork and archive research.

5.15 Archaeological evidence has gone some way to explaining the organisation of the pre-historic landscape, culminating in its division into a number of farmsteads and/or small settlements during the Romano-British period. Dating of these features is based on a very limited amount of excavation, undertaken in the 1930s and late 1980s, and the recovery of chance finds. Geophysics surveys of the all scheduled sites have confirmed ring ditches surrounding the two Monument barrows, but little other useful detail. Further targeted excavation would provide a clearer dating framework and would also develop our understanding of what the various enclosures were used for. It would help to date the various elements of the assumed Romano-British field systems and define their relationship with the enclosures. It might help to understand why these farmsteads and settlements were abandoned and whether cultivation continued beyond the Romano-British, into the early Medieval period.

5.16 Evidence for localised ironworking has been recovered, presumably utilising the available timber. It is unclear whether this industrial activity was associated with the Romano-British occupation or relates to much later Medieval activity. It is probably Romano-British, by association with pottery finds in similar locations and extensive iron workings at the nearby Cow Roast site as well as elsewhere in the Chilterns.

5.17 The locality was heavily exploited during both World Wars. Features associated with C20

conflict require mapping and the site evidence to be supported by further documentary research as part of a project to determine the extent of military activity across the whole Ashridge landscape.

5.18 A range of archaeological techniques is now available to supplement the archaeological survey begun over 30 years ago. The archaeological potential of a number of sites, particularly the Romano-British and Medieval enclosures, could be explored through geophysics, particularly settlement sites where accessible, and through detailed topographical survey.

Levels of Archaeological Potential

5.19 Depending on the degree of subsequent interventions, the potential for archaeological evidence of the various key periods and features of the study area is as follows.

High

5.20 Features with high potential include those where the ground has been little disturbed since the feature was abandoned, which is the case for much of the study area. These include:

- Prehistoric and Roman features and finds, although it is difficult to predict locations as they are likely to be scattered; not all settlements have defining earthworks and so may invisible on the surface;
- Boundary banks relating to agricultural and woodland management and administrative boundaries (e.g. parish and county boundaries);
- Outwood Kiln and the associated industrial workings;
- Tracks and other routes including hollow ways used for stock movement, and Isleys track;
- Ancient trees, both living and surviving skeletons (within and beyond NT ownership) and coppice and pollarded specimens, including those related to boundaries and to the early C19 ornamentation;
- Ponds;
- Extraction pits;
- Agricultural and industrial features in woodlands including brick works remains and field boundaries;
- C19 designed landscape features surviving in relict form such as the former quarry on the Duncombe Terrace that was incorporated, lost gateways, a possible path along the top of Duncombe Terrace;
- Site of lost buildings including the Clipperdown building(s) on the terrace below Clipperdown Cottage;
- World War II features, particularly alongside Monument Ride but also possibly further afield.

Low-Moderate

5.21 Low to moderate potential is likely where features have been abandoned or removed for a considerable time or the ground has been greatly disturbed such as major forestry clearance and replanting in the later C20 and ploughing, particularly mole ploughing, and drainage works.

5.22 Features may include:

- Woodland rides;
- Woodland and park boundary fencing;
- Tree pits and stumps;
- C19 boundary materials such as iron fencing and gates.

Unsuspected Level of Potential

5.23 In addition, evidence may survive more broadly in the historical context in places for which there is little or no indication of potential. The high concentration of Roman and prehistoric remains along the whole Chiltern scarp suggests a high potential for finds and places from these periods but with little visible indication of their presence: the Chilterns Hillforts Project LIDAR may provide further information.

6
Analysis and Landscape Characterisation

6.1 The Ashridge Estate is of international importance for nature conservation and is one of the country's best sites for beech woodland, ancient and veteran trees, and the rare invertebrates that live on them. The site's importance is clearly demonstrated in its designation as part of the Chiltern Beechwoods Special Area of Conservation (SAC). The SAC is primarily designated because it provides one of the UK's best and most representative examples of this ecologically valuable woodland type: the Estate makes up a substantial proportion of the SAC and contains one of the largest and most well-connected woodland blocks.

6.2 As well as the ancient and veteran trees and their associated wildlife, the estate still holds populations of important species including birds such as firecrest and lesser-spotted woodpecker, and notable butterflies such as the large and distinctive purple emperor. Rare bats including the barbastelle make their home here: this species roosts almost exclusively in trees, making use of cracks, lose bark, small and large hollows (plus occasionally bat boxes and buildings) and it is known to move its roosts many times during the summer. Very few breeding colonies have been found in Britain, so the maternity colony (or colonies) known at Ashridge are of extra significance. The landscape rich in wildlife, is designated at the European level but also at the national level,

again for its woodland and flora, but also for its nationally notable assemblage of breeding birds.

6.3 The current state of the Estate's wildlife is the culmination of a rich and varied history of land use management, reflecting wider social changes from the Roman era, through the Middle Ages, to the present day.

6.4 High points of land use change over this period, that are still expressed today in the landscape, flora and fauna of the study area include the wood banks enclosing ancient woodland, open fields established for cattle and haymaking, rides and glades reflecting past woodland management, and the open-grown veteran trees, many of which are pollards and would have stood originally in a more open wood-pasture type of landscape. Along with the variation in geology, from the steep scarp slope with thin, alkaline soils, to the plateau with clayey soils, this rich history has resulted in a variety of habitats at an extent found rarely in the UK.

6.5 This Conservation Management Plan focuses on a study area that encompasses one of the largest woodland blocks within the Estate. Whilst it does not cover the whole estate it is, to a large extent, representative of the whole and encompasses some of its most important ecological and historical features.

6.6 The estate also has one of the country's finest examples of an extensive and largely intact house and grounds dating from the C19. The study area comprises the western fringe of the much larger Ashridge House and its estate but does include Monument Drive, Bridgewater Monument, and other drives and rides and viewing terraces. In addition, there is a complex pattern of archaeological remains throughout the study area including three nationally important scheduled monuments, and other regionally and locally important features.

6.7 Whilst there is restoration work required to conserve the historical and archaeological components of the Estate, the imperative, reinforced by Trust policy, is to focus in the short term on the ecological value of the landscape. There is much still to be discovered about the wildlife of the estate, but there are indications that some of the species for which it was once noted have declined or may even no longer be resident here. These declines or losses, hinted at in the data but not necessarily confirmed by recent survey data, may be due to a wide range of factors operating at international and local scales.

6.8 Climate change and the state of conservation in the African wintering grounds of some of the species that come to the UK to breed, such as cuckoos for example, may be responsible for declines seen across the UK in recent years. Climate change may also be behind a national westward shift in the UK population of stag beetles – one of the species for which the SAC was designated. The total population within the Chiltern Woodlands SAC was only estimated at 6-10 individuals across the whole SAC, and whilst none have been recorded from Ashridge Estate in recent years there are records nearby and there is a vast amount of suitable habitat within the study area.

6.9 At a more local level, the Estate is affected by trends seen elsewhere in Britain's woodlands as a result in the declines of traditional management such as coppicing, timber extraction and the varied practices associated with commoners' rights. Whilst these interventions had dramatic impacts on habitat structure at a very localised scale, it is the change and variety that they bring that results in the greatest biodiversity. Perhaps one of the greatest changes experienced by the wildlife of the Estate was the end of grazing, which ceased in the early part of the 20th century.

6.10 Grazing kept the commons open, helped to manage the extent of bracken and provided

dung for invertebrates (which in turn provided food for birds and bats). Grazing was also the reason many of the trees were pollarded – to provide a crop of wood protected from browsing cattle – which helps to create the ideal conditions for a rich fauna associated with the Estate's ancient trees today. Grazing also leads to the development of a more species diverse grassland sward by reducing the ability of aggressive plants to become dominant, stopping woody species seedlings from developing into scrub and encouraging a range of smaller flowering plants that are so valued in chalk grassland and meadows.

6.11 In addition to the change in management, the large populations of deer and squirrels, which damage mature trees and limit the re-growth of new trees, has had a major impact in the woodlands, and has affected the value of the estate for wildlife. These factors combined have led to the homogenisation of the woodland structure over much of the area with the dominance of a closed woodland canopy, limited shrub-layer and shaded field-layer. Whilst this was always a feature of the Estate, its encroachment across the formerly open commons may be linked to the apparent declines in some species of wildlife.

6.12 A further challenge for the Estate will be an increasing number of visitors as populations in the surrounding settlements are set to expand. Ashridge is a key destination for residents of the surrounding areas. There is good accessibility for people to enjoy the Estate at present, particularly along Monument Drive and Duncombe Terrace. Improving this access, whilst avoiding damage that may occur through trampling of the vegetation or disturbance of wildlife, can be managed in combination with other goals such as opening up some of the woodland via rides and managing veteran trees to reduce the shading from surrounding trees. Including grazing in this mix of management options can be achieved for the benefit of people and wildlife and has been done successfully elsewhere in the UK with stand-out examples at Burnham Beeches and the Knepp Estate.

Conservation Approach

Ecological Imperative

6.13 It is suggested that the overall conservation approach concentrates on reinvigorating existing ecological habitats and, or, recreating those that existed before within the framework of its historical landscape character. The landscape was probably most ecologically diverse from the Middle Ages to the early C20 when common land management was in practice.

6.14 Figure 6.1 shows the Ashridge landscape at the turn of the C19: it was a much more open landscape with clearly defined woodlands, such as Old Copse and Sallow Copse, standing out from the other common land. Much of the latter was grazed. Figure 6.2 shows a picture of the Ashridge landscape c.1834, by Thomas Lindsay approximately 2 years after the Bridgewater Monument was erected, and it captures the openness of the grazed chalk escarpment at that time. By the 1878 OS map the tree canopy appears to have expanded but it still illustrates a clear distinction between woodland and common see Figure 3.2.

6.15 It is suggested that management of the landscape should move towards recreating and conserving the balance of woodland, coppice and wood pasture that existed in harmony with the designed landscape during the C19.

Figure 6.1: 1806-7 Ordnance Surveyor's Drawing (British Library sh 150)

Figure 6.2: c1834 Ashridge by Thomas Lindsay 2 years after the monument was erected

Ecological Conservation

6.16 Figure 6.3 illustrates the possible habitat restoration opportunities that would start to re-establish the medieval balance of vegetation management.

6.17 This could include:

- Restoration of former coppiced woodland to large areas of Sallow Copse and initially to the northern boundary of Old Copse. Coppicing creates multi-stemmed regrowth from trunks of trees cut back to just above ground level. The resultant regrowth produces thin stems which can be cyclically harvested to provide useful products such as handles, poles and firewood. Ecologically it provides a suitable shrubby undergrowth ideal for nesting birds whilst at the same time opening up more of the woodland floor to light, attracting a more diverse ground flora than would exist under a solely mature tree canopy;
- Restoration of wood pasture to large areas of former Pitstone and Aldbury common land through a programme of opening up glades that eventually link together into more substantive pasture and trees. This will provide grazed pasture beneath 'pollarded' trees which were akin to coppiced trees cut at a level above cattle grazing height. This practice increased the area that could be grazed whilst still providing opportunities for the production of coppice-type wood. Pollarding lengthens the lifespan of the tree by maintaining it in a more juveniles form and preventing the tree from developing height and thus more open to windthrow. These long-lived trees become particularly rich in invertebrate fauna, often becoming hollow over time providing roosting sites for bats and birds. Many of the ancient or notable trees on site have been pollarded;
- Management of veteran trees. Throughout the site there is a range of ancient trees that ideally would have less competition from newer invasive trees and increased light from a more open canopy. Many of these trees will benefit from being incorporated into areas either of coppice or wood pasture recreation;
- Restoration of rides within woodland areas. The vegetative transition between woodland and grassland in natural woodlands is a very ecologically rich environment. By creating and maintaining rides it is possible to artificially produce this effect and encourage more insects and birds to the woodland;
- Restore grazed pasture on areas of the scarp face: this could also be a regime introduced to Meadleys. Cattle or sheep grazed grassland can become rich in plants and insects as well as affording resting and nesting for birds. Animal droppings attract insects whilst disturbed areas of turf, due to poaching or minor landslips on slopes, offer localised recolonization opportunities for plants. Grazing reduces the dominance of vigorous growing plants that do not like being regularly cropped creating niches for a diversity of plants able to withstand such management;
- Continued management of mature woodland. The mature woodland offers opportunities for all kinds of fauna, but the current woodland flora is being restricted by overgrazing by deer and damage to young trees by squirrels. The woodlands themselves could be fenced-off from the original common land, even if the latter is now reverting to woodland through lack of grazing. This would start to introduce differences in the ancient and newer woodland. The fencing would prevent some of the dogs and people wandering off through the undergrowth and experiments could be done to see if areas within the woods can be

successfully fenced off from deer to allow the woodland ground flora to develop. Deadwood is also a vital resource within these woodlands and trees that have fallen completely to ground and those still at angles provide differing habitats to invertebrates.

6.18 Figure 6.3 shows where restoration can start but over a long timescale it is conceivable that other areas are restored to former wood pasture on the former common land and coppice with standards in the ancient woodland.

Designed Landscape and Archaeology

6.19 The footprint of the historic Ashridge Estate encompasses a much wider landscape than the study area. To the east is the heart of the original estate with Ashridge House and its gardens, now in private ownership, linked to the study area by the vista from the House to the Bridgewater Monument. The National Trust owns further areas of the former estate to the north and south of the study area whist other areas of the estate have been sold.

6.20 The main historic legacy within the study area today is a footprint of vistas and rides, access routes and viewing terraces punctuated by lodges, cottages and the Bridgewater Monument itself, see Figure 6.4. A detailed review of these elements is presented in the Gazetteer, see Part 2 Gazetteer.

6.21 The views and vistas are one of the most important elements of the designed landscape, see Figure 6.5. They were carefully aligned on man-made features such as the Monument or Monument Cottage or used the natural landscape of scarp and wooded plateau to create controlled narrow rides opening out onto extensive views of the landscape viewed from the top of the scarp. These features are vulnerable to invasive trees growth and it is important they are not lost.

6.22 Archaeologically the main interest is in the barrows adjacent to the Bridgewater Monument and the bell barrows and roman finds at Moneybury just to the north.

6.23 Managing primarily for ecology should not conflict with these two significant areas of interest the main issue is not to let features be lost whilst biodiversity is increased. Over time it should be possible to refocus on a more balanced approach when resources permit.

Characterisation

6.24 Drawing together our understanding of the site today and its evolution we have developed a characterisation of the landscape that identifies distinct areas that lend themselves to both explaining the influence of the past and allowing a more simplified language for managing the site in the future. To aid description and understanding of the site we have divided it into five main character areas, see Figure 6.6:

A Clipperdown and Duncombe Terrace
B Sallow Copse and the Isleys
C Pitstone Common and Aldbury Common North
D Old Copse
E Aldbury Common South and Aldbury Terrace

6.25 These character areas reflect most strongly the cultural management of the mediaeval commons and their ecology overlain with elements of the designed landscape. The boundaries of the old parishes which in turn defined the commons of their name is shown in Figure 6.7.

6.26 Clipperdown and Duncombe Terrace were part of the more open managed land of Ivinghoe common. Area B was all within Pitstone common and includes the main block of woodland, Sallow Copse, in the study area. The more open parts of Pitstone common and similar land in Aldbury common have been amalgamated into character area C whilst the wooded area of Aldbury has been separated out into character area D. Area E is the southern area of Aldbury common in the study area.

6.27 The ecological character reflects the slightly different management of the commons in each of the ancient parishes. Area A Clipperdown and Duncombe Terrace was formerly part of Ivinghoe common which had a more open character and was grazed. The trees that characterise the area are old beech.

6.28 Pitstone common, was more varied and had common wood and common land on the plateau with farmland on the lower ground to the west of the scarp. The scarp was mainly wooded, The Isleys, and most of the plateau was common wood which was later enclosed and named Sallow Copse. In Mediaeval times there were complex rights, privileges and regulations for the use of land. Common woodland was utilised for grazing, hunting, firewood gathering, and the cutting of timber for building. This more wooded character of Pitstone common and the fact that it embraces a current ancient woodland designation made it distinct enough to put it into its own area, Area B. The ancient trees that characterise this area are Sweet Chestnut.

6.29 Part of the southern plateau landscape of Pitstone common was more open wood pasture and grassland where smallholders could graze their animals and also acted as rights of way between settlements. This character was similar to the northern part of Aldbury common. Because of this similarity and also the fact that this area became the heart of the designed landscape within the study area, these two sections of common were brought together to form Area C. A much wider mix of ancient trees characterise this area with Oak and Beech common.

6.30 Area D was described around the ancient woodland and coppice, Old Copse. This is not only a clearly definable woodland but also contains the ornamental Old Copse Drive. Again, its ecological character is of former coppice and standards woodland with many ancient Sweet Chestnuts.

6.31 Aldbury Common South and the Aldbury Terrace form character area E. This includes areas of more open scarp overlooking Aldbury and the former wood pasture of the common. Again, as with Area C, the dominant ancient trees are Oak and Beech.

6.32 The main designed landscape influence comes from the post mediaeval evolution of Ashridge House and its wider estate with most of the features today dating from the early to mid C19. The designed elements were on a heroic scale seeking to emphasise the sheer size of the estate using long rides cut out of plateau commons to widen near the scarp edge into open views of the Bulbourne valley from grazed pasture.

6.33 The main axis of the design runs from Ashridge House to the Bridgewater Monument where it meets a scarp-top path that runs the entire length of the western boundary of the study area. Interest was added where Prince's Riding meets the Deer Leap (now where the B-road crosses the estate) where a goose-foot pattern of rides offered differing vistas and routes. This goose-foot

pattern lies within Area C whilst the scarp path north runs through areas B to A where another designed element, the viewing point, Duncombe Terrace was constructed.

6.34 To the south the path runs along the scarp, bordering Old Copse, to another viewing terrace, Aldbury Terrace, with commanding views of Aldbury village and distant Aylesbury in Area E.

6.35 The other main designed element, apart from the various gate lodges and ornamental buildings such as Monument Cottage, was Old Copse Drive. This was a route cut out of Old Copse that runs from Old Copse Lodge curving to meet the B4506 at Thunderdell cottages. The drive was lined with ornamental shrubs from which views were created along rides both north and south; the drive linked to another drive across the B-road running east to Ashridge House. This feature is contained entirely in character area D.

6.36 The rich **archaeology** is less influential in characterising areas although some of the mediaeval features such as the wood banks do provide strong linear features in the copses The impact of extractive industries on the commons was considerable in localised areas, including clay extraction for brickmaking which left numerous large pits, especially on Ivinghoe Common and Old Copse, and chalk extraction, leaving large pits on Tom's Hill and below the Aldbury Terrace as well as numerous smaller scattered pits. Some individual features such as the barrows are evident in the landscape but other features, such as Roman field boundaries may be harder to discern to the untrained eye.

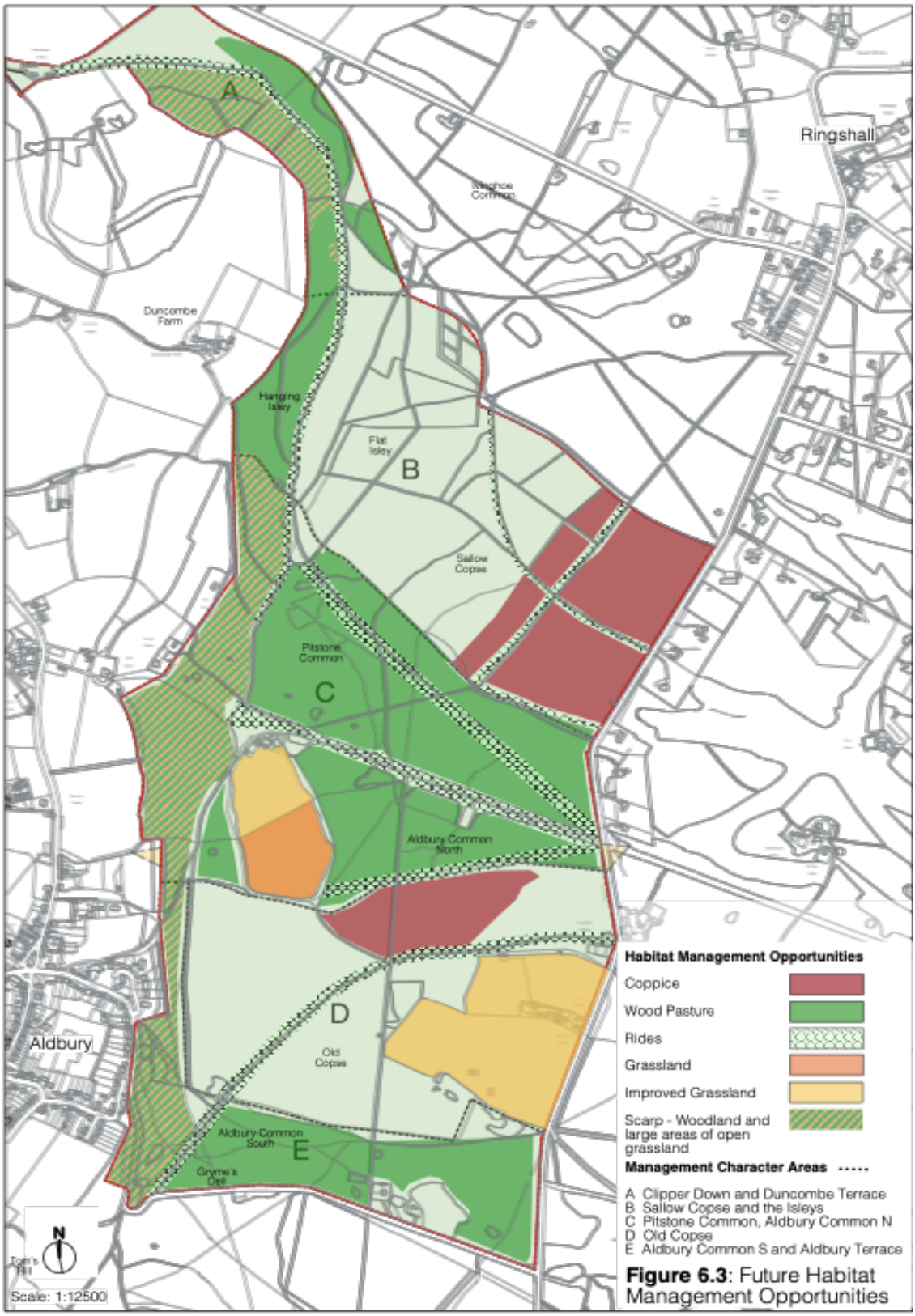

Figure 6.3: Future Habitat Management Opportunities

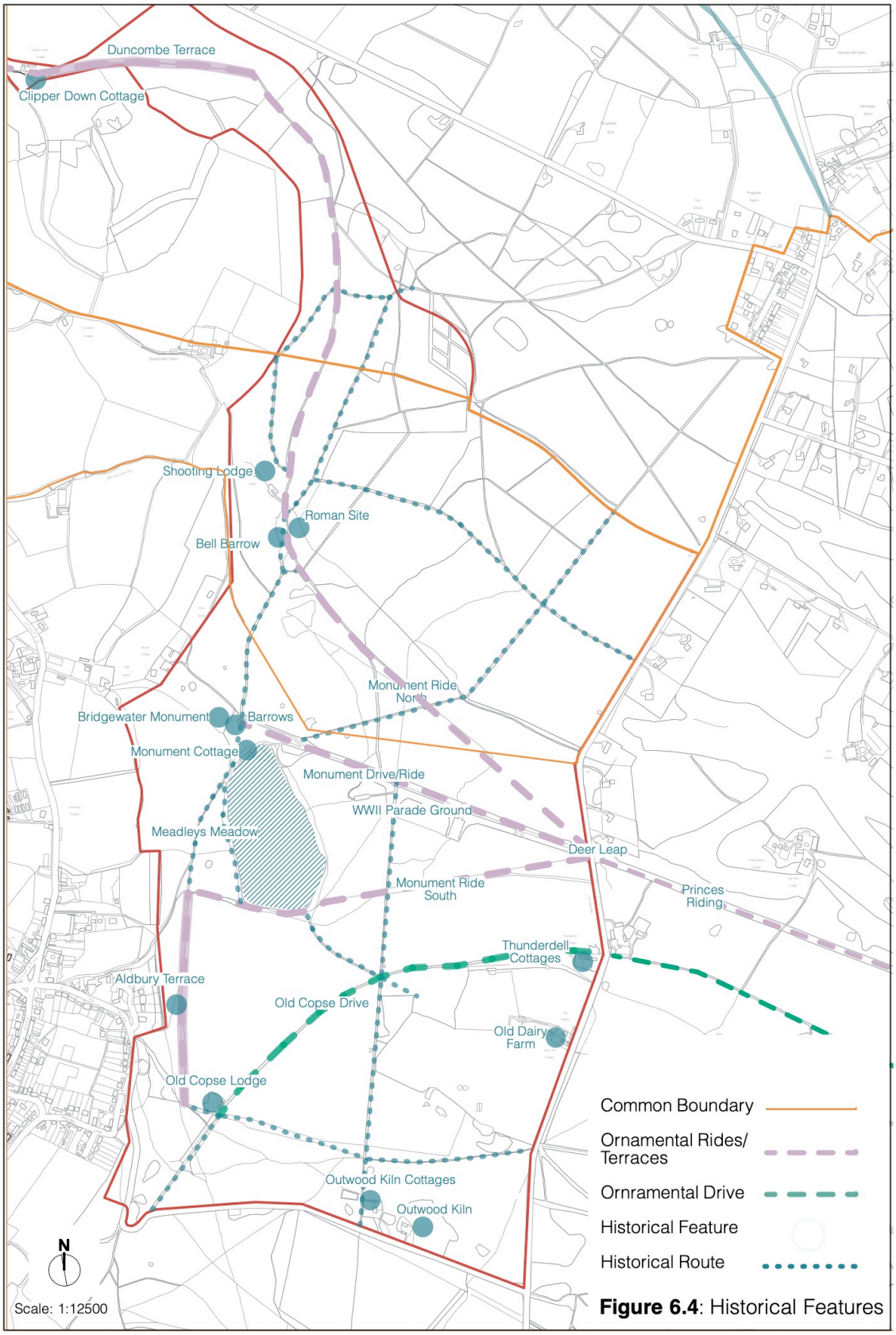

Figure 6.4: Historical Features

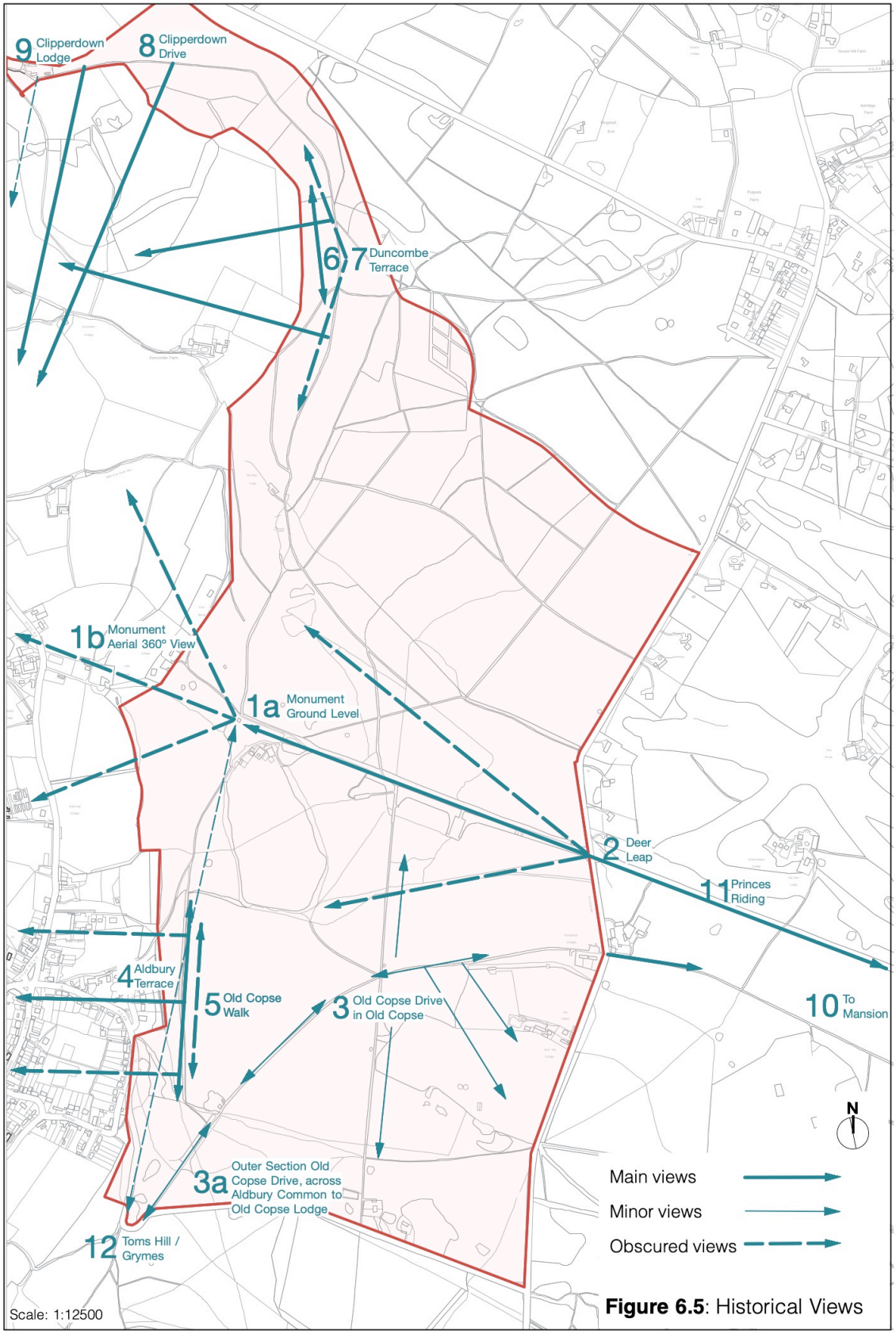

Figure 6.5: Historical Views

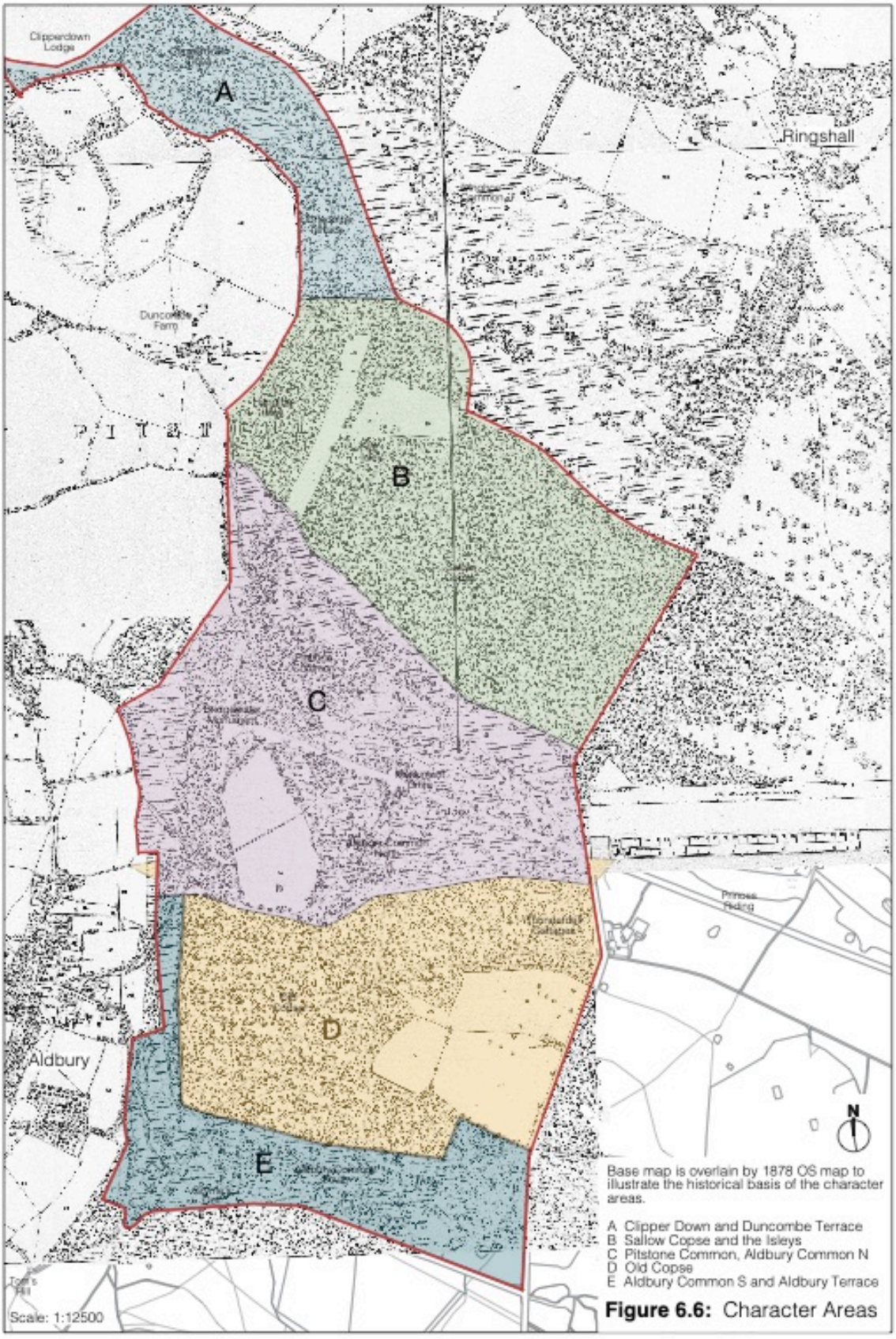

Figure 6.6: Character Areas

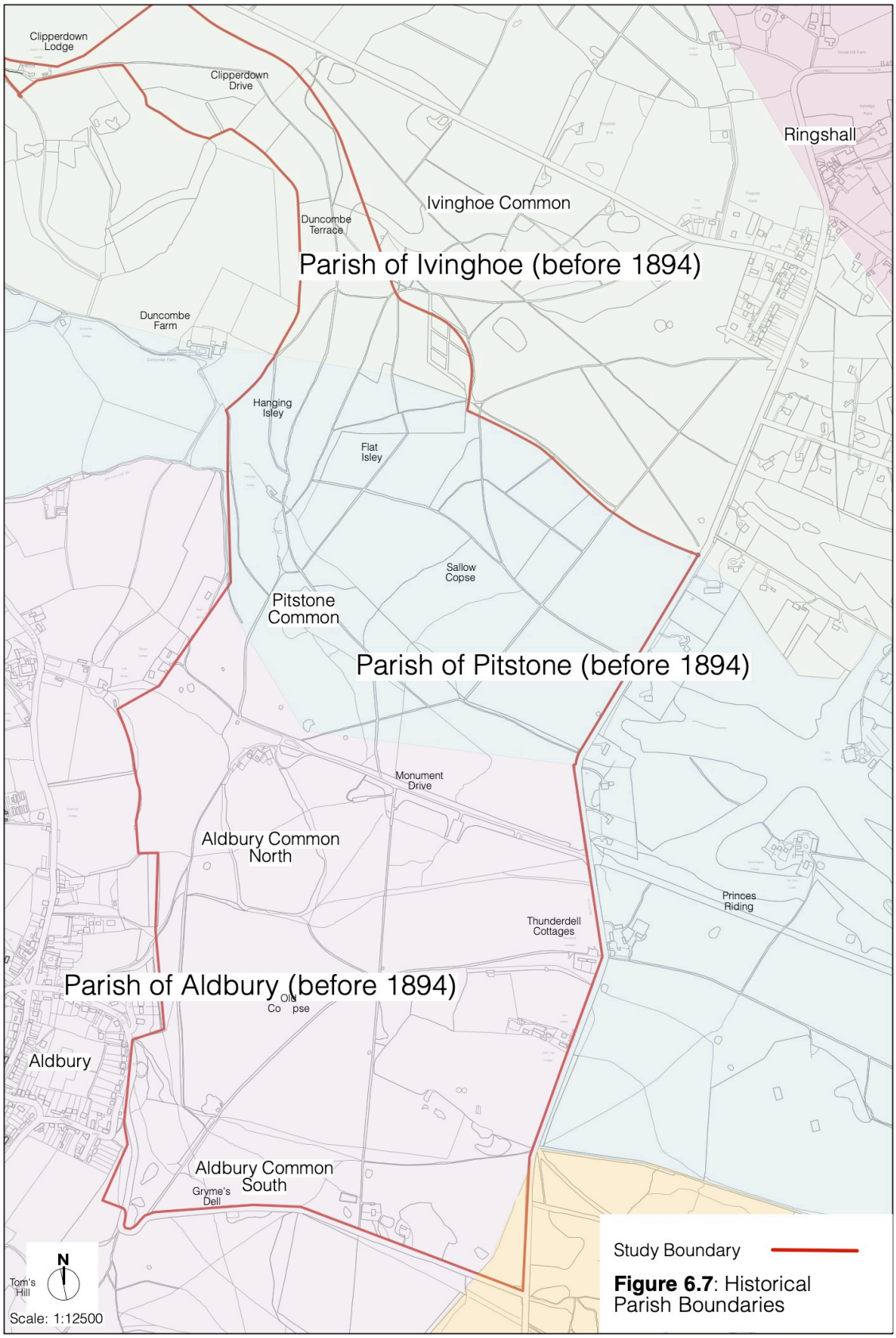

Figure 6.7: Historical Parish Boundaries

7 Significance

Statement of Significance

7.1 There is no question that the study area, and the wider Estate, is of the highest possible level of significance for nature conservation. Primarily this is because it is one of Britain's best sites for beech woodland, ancient and veteran trees, and the rare invertebrates that live on them. This is reflected in its designation as a Special Area of Conservation (SAC) – one of nine sites in England and Wales designated for this particular type of beech woodland.

7.2 It is estimated that there is around 12,250 ha of this type of beech woodland in the UK, most of which is found in England with a small amount in Wales (it is absent from Scotland and Northern Ireland[42]). The study area therefore contains approximately 2.5% of the UK's total resource. Whilst this may seem a small proportion in some senses, it is unusual to have such a

[42] Joint Nature Conservation Committee. 2007. Second Report by the UK under Article 17 on the implementation of the Habitats Directive from January 2001 to December 2006. Peterborough: JNCC. Available from: www.jncc.gov.uk/article17

large and well-connected example. The study area also contains good examples of the variety found within this broad vegetation classification, with the more calcicolous[43] examples on the scarp slope and the calcifuge variants on the plateau. The study area also supports nationally and regionally important wildlife including birds and bats, and a great variety of wildlife of value at a more local level including reptiles and amphibians. The bird assemblage, containing national and regional rarities, was one of the key reasons the site was designated as a Site of Special Scientific Interest (SSSI) in 1952 (and again in 1987 under The Wildlife and Countryside Act 1981 (as amended).

7.3 Given the large area involved it is not surprising that there is more to be learned about the wildlife and ecology of the study area. Amongst the bird assemblage for which the site was most notable at the time of its designation as a SSSI, some are suspected to have disappeared from the study area including hawfinches and possibly woodlark. There are patchy records of these species but there is no good evidence of a remaining breeding population. Further study of some of the species that are less easy to detect, such as bats, bryophytes, fungi and lichens would likely reveal some significant finds that would affirm the site's significance.

7.4 The SSSI units contained within the study area were classed as 'favourable' during the last official assessment in 2009. There is no doubt that the extent of woodland remains similar, if not the same as, at the time of the original designation, but it is doubtful that the breeding bird assemblage is as rich. The condition of the woodland has also undoubtedly been affected by the decline of traditional management since the early 20th century including the cessation of grazing. Stands that would once have been more open are now characterised by dense, even-aged regrowth of secondary birch, beech or ash often surrounding some of the veteran pollards. The other major impact on the woodlands is the presence of deer and squirrels, which cause damage to trees and hamper regeneration as re-growth is browsed off.

7.5 None of the threats and pressures on the woodland are enough to have negated its international significance, and the declines in species seen here are reflective of similar patterns across the UK. Experience at places such as the Knepp Estate have shown that with the right management approach much can often be regained of what was once lost. Further reason for optimism is given by the presence of some of the missing species in nearby sites such as Aldbury Nowers. This might in part reflect that these sites are better-studied, but equally they might act as reservoirs from which species can re-colonise the study area subject to the right conditions. One of the primary justifications for re-introducing grazing and other traditional woodland management techniques would be to conserve the ancient and veteran trees and their invertebrate fauna in good condition. Many of the trees would originally have grown in an open situation but are now surrounded by other trees. Many of the ancient pollards have not been cut for many years. Experience at Burnham Beeches over many years showed that these trees can effectively be conserved as part of a long-term management strategy. Traditional management to open up rides, glades and woodland edge habitat would also benefit a wide range of other wildlife including birds, bats, and dormice.

[43] Calcicolous refers to plants that prefer soils over typically chalk or limestone geology with high pH values. The opposite is calcifuge.

7.6 The ecology of the study area reflects the changing patterns of land use from the Roman era to the present day. Some of the key periods such as medieval wood pasture, heath and acid grassland on the commons, and pre-Roman calcareous grassland of the scarp slope have become obscured over time, particularly since the cessation of grazing. Nevertheless, there are relict examples of many of these habitats and it is likely that many of them could be recovered with the reintroduction of grazing.

7.7 There is evidence from the archaeological record of extensive human interaction with the site since Late Bronze Age and Iron Age with two barrow sites still important landscape features. There is evidence of Romano British farms and then, more recently, strong evidence of medieval common land management and woodland management features.

7.8 This land use pattern was overlain by a designed landscape of 'heroic' proportions, only a part of which is within the study area proper, but left a legacy of rides, terraces, lodges and cottages with a major focus on the Bridgewater Monument sited at the end of the grand vista along Monument Drive to Ashridge House, itself outside the study area. A further ornamental route, Old Copse Drive formed another link to Ashridge House.

7.9 Finally, WWII remains of a wartime camp are found along Monument Drive and the most visible legacy is parade ground is now used as a car park within the woodlands and the surfaced drive itself.

7.10 Despite some losses and on-going threats, the wildlife of the study area retains its international significance for nature conservation. Some small and discrete areas may be of lesser significance (such as the visitor infrastructure) but overall there are no easy distinctions into which the significance of the study area could be divided.

7.11 The designed landscape is of national significance, Grade II* on the Historic England Register of Historic Parks and Gardens and remains a strong and visible element within the Estate with iconic Bridgewater Monument, a nationally significant listed building, a central feature for many visitors.

7.12 Archaeologically, the site supports three nationally significant Scheduled Monuments and a diversity of regionally and locally important features.

Significance

7.13 Significance is categorized as follows:

A/A+	Exceptional	i.e. national (A) or international (A+)
B	Considerable	i.e. regional (South-East & East England)
C	Some	i.e. local (Chilterns)
D	Little	
Int	Intrusive/damaging	

Overview

A+

7.14 The study area is a combination of centuries of accrual of cultural aspects, preserved by a stable and non-destructive management system, that survives largely intact and has acquired outstanding wildlife value over the whole extensive area of historic commons and designed landscape.

7.15 The decline in traditional management which began in the mid-C19 and accelerated after the 1926 sales, has damaged cultural aspects, especially the specific mosaic of commons character and the unique designed landscape overlying it at heroic scale. It has also compromised the wildlife value, which is on a declining trajectory for the wildlife diversity and habitat value. However, the damage is not irreversible.

Ecology

A+

7.16 Overall the study area easily qualifies as the highest level of significance, as a good representation and large area of semi-natural habitat with important species of birds, invertebrates, bats and other taxa. The table below summarises the relative significance of the features within the study area.

Feature	**Significance**	**Character Area(s) and Notes on Distribution**
Beech woodlands corresponding to the Annex I habitat *Asperulo-Fagetum* forests, and a qualifying feature of the Chiltern Beechwoods SAC, and the habitat for which the SSSI is designated. Included within this are the various forms of this woodland type within the study area	A+	A-E: the NVC classes of the various woodland types vary, but the vast majority of woodland (with the clear exception of conifer plantation) broadly qualifies as Annex I Habitat.
Saproxylic invertebrates	A+	A-E: Notable species are found throughout the study area, in particular in association with standing and fallen dead wood, and ancient and veteran trees.
Stag beetles and dead wood likely to support larvae	A+	A-E – abundant fallen dead wood throughout, with the best areas in the plateau woodlands. The actual presence of stag beetles is not confirmed through recent survey.
Breeding birds including an excellent assemblage of woodland species and some national and local rarities	A	A-E – the combination of habitats across the whole study area is what makes the woods special for breeding birds. However many of the species have declined and some may no longer be present. Further study may reveal a greater level of importance, with some of the rarities from the SSSI citation still present within the study area.
Lepidoptera, including some nationally and regionally notable species	A	A-E: records of notable species are found throughout the study area.
Ancient and veteran trees	A-B	A-E, with some of the best areas in the south (E) and north (B).

Amphibians – great crested newt, common frog, common toad, smooth newt and palmate newt – and the ponds on which they depend	B	C (potentially present throughout – virtually the entire study area is within 500m of a pond), although great crested newt may not be present in the study area.
Bats – including one Annex II bat (Barbastelle)	C	A-E: all areas provide excellent foraging habitat and there is an enormous amount of potential roosting habitat in veteran trees in particular, and in the buildings within the study area.
Rare plants	C	A – E: A large population of bluebells within the ancient woodlands along with other ancient woodland indicator species. Rarities such as white helleborine and green hellebore present on the scarp slope, and the probable presence of fly orchid. Further studies, particularly of lower plants and lichens might reveal a higher level of significance.
Dormouse	C	B (potentially present throughout where suitable habitat exists).
Grassland	C	A-E: grassland is mostly of low botanical diversity, although the southern half of Meadleys Meadow retains some characteristics of traditionally managed grassland. The meadow is not designated and, whilst botanically it is more diverse than most of the other grassland it is a relatively common grassland type regionally and nationally.
Badgers	D	C
Reptiles – common lizard and slow-worm	C	C
Grazed grassland	D	C, D, E
Conifer plantations	D	A, B, E
Edible dormouse, deer, squirrels	Int	A-E: Large populations of all species causing significant damage to tree regeneration and health.
Rhododendron and cherry laurel	Int	B, D

Working Cultural Landscape – the Commons and Woods

B but potentially A with return to commons management

7.17 The study area is a key element of an outstanding example of extensive Chiltern commons, and associated woodland and meadows, that survives intact as the result of many centuries of stable and non-destructive traditional management. This cultural landscape, derived from the commons of three parishes within two counties, is part of the wider Chiltern commons area including Berkhamsted, a further part of Ivinghoe and Little Gaddesden. It reflects, in relict form in places, the variety of traditional management methods in a rare surviving and extensive example of a formerly typical combination of wood pasture, common and private woodland (for timber and wood) and meadow (pasture). The framework survives well, including ancient trees managed for various purposes, despite later overlays (the early C19 ornamental landscape) and insertions (surviving as relict World War II military features and the later NT visitor centre and car parking) but much of the traditional management has been abandoned, particularly the grazing, allowing secondary woodland to encroach on open wood pasture and engulfing mature trees, which has gradually altered the characteristic mosaic of land management.

Landscape Design

A

7.18 The study area forms the important outer section of the nationally significant Ashridge designed landscape as a pendent to the Park. Constructed at an heroic scale and linking the whole area via extensive terraces, rides and drives, it is an integral part of the seminal early C19 phase of the estate development for the Bridgewaters which saw the erection of the mansion, built at vast scale by Wyatt and Wyatville, innovative and extensive gardens laid out by Humphry Repton, and the park extended still further. This effect of this design phase on the study area has only previously been recognised in small part, with Monument Ride and Old Copse Drive being part of the Historic England Grade II* Registered area. This study has revealed the much greater extent of the design to which these features contribute, its high quality, and complexity, and the integral relationship to the mansion and park via Monument/Prince's Riding and Thunderdell Wood/Drive. Some of the associated trees survive as a relic of the ornamental planting intended to emphasize the features, often when greater intervention to could not be achieved because of the limitations of the common land, such as along the goose foot of rides focussed on the Deer Leap.

7.19 Many of the structures form a key ornamental element of this design phase. These are focussed on the dominant column, purely a folly, eyecatcher and belvedere (listed Grade II*), sited by Baron Farnborough and designed by Wyatville, but also with the ornamental and functional estate cottages and lodges including Old Copse Lodge, and Clipperdown, Outward Kiln and Monument Cottages.

Archaeology

Individually A-D; but A as an ensemble

7.20 The importance of the archaeological evidence is not immediately obvious from the number of designations applying to the study area (3 scheduled sites, 1 listed building out of 85 sites). This is due to the three designated Scheduled Monument sites, and also the Romano-British enclosures and field systems and the medieval enclosures which, although undesignated, are

believed by NT Regional Archaeologists Gary Marshall and Angus Wainwright to be of national significance. While of individual significance and indicative of certain types and periods of occupation, these comprise a relatively small group of disparate features that do not cover all the key periods of activity and are not representative of them in their entirety.

7.21 The key significance arises from the ensemble of archaeological evidence within the whole study area. Specific asset types include particularly:

- the barrows providing evidence of the ritual/ceremonial use of the landscape
- the several Iron Age or Roman farmsteads and associated fields spread across the three commons
- the clustered hollow-ways showing patterns of movement across the commons
- the enclosure banks and ditches and their interpretation from documentary sources
- extensive evidence of resource exploitation evidenced by brick pits and chalk pits

7.22 As a whole it forms an extensive and well-preserved example of multi-period archaeological features arising from a continuity of human activity for 4,000 or so years, reflecting typical rural activity in the Chiltern region, more particularly along the scarp. Within this the individual features range from local to national levels of significance. The value of the study area in this respect is further increased because it forms a key element of the wider medieval Ashridge commons, this area within the 2,000 ha. National Trust Ashridge Estate forming part of the still larger historic estate assembled by the Bridgewater family by 1926. The high level of preservation and stability of condition of the features, resulting from the continuity of non-invasive and traditional land management, further increases the significance of the ensemble, even though much of the management regime has been abandoned for at least a century, particularly the grazing of the wood pasture.

Detailed Significance Table of historic and archaeological features

7.23 In assessing significance of features the following categories have been used within the table.

Designed Landscape Significance within Ashridge Estate is categorized as follows:

A	Exceptional	Fundamental to the design concept or to historic interest of estate.
B	Considerable	Essential parts or elements specific to the vocabulary of the estate.
C	Some	Item of historic or archaeological interest; contributes to design complexity.
D	Not historically significant.	
E	Intrusive:	Items which damage the historic character.

Significance beyond Ashridge is categorized as follows:

A	Exceptional	i.e. national, including key features, highly graded listed, scheduled monuments of great rarity, e.g. Monument; Monument Ride, Bell Barrow, the C19 terraces
B	Considerable	i.e. regional, including lesser graded listed (SE & E England), more common types of Scheduled

		Monuments; unlisted buildings of particularly high quality e.g. Old Copse Lodge, Outward Kiln Cottages
C	Some	i.e. local (Chilterns) e.g. lodges and gateways; other ornamental estate buildings; World War II features such as the drive and parade ground
D	Little	e.g. individual isolated C19 buildings (but as a group they rise into the 'some' category)
Int	Intrusive/damaging	modern structures e.g. Monument Visitor Centre

Condition is categorised as follows:

1 Good: no repair required; continue maintenance.
2 Fair: Structurally sound/complete, but some repair required.
3 Poor: Dilapidated and/or structurally unsound and needing major restoration.
4 Derelict: A ruin or badly damaged/incomplete.
5 Lost.

Vulnerability Rating: Low, medium or high (based on the Archaeology gazetteer and HEA estimates for items not included)

Stability Rating: Good, fair, poor (based on the Archaeology gazetteer and HEA estimates for items not included)

CA	Feature	Designation	Signif to Ashridge	Wider Significance	Condition	Vulnerability	Stability
A	Clipper Down Cottage		B	C	2-3	Medium	Fair
A	Duncombe Terrace		A	A	2	Medium	Good
C	Bell Barrow	SM	B	A	2	High	Fair
C	Bowl Barrows	SM	B	A	2	High	Fair
C	Meadleys Meadow		B	C-D	2	Low	Good
C	Monument	Listed II*	A	A	1	Low	Good
C	Monument Cottage		B/C	C	1	Low	Good
C	Monument Drive & Parade Ground	Drive in Reg II* area	B/Int	C	2	Medium	Fair
C	Monument Rides	Mon Ride in Reg II* area	A	A	2-3	Medium	Fair
C	Monument Visitor Centre		INT	D/INT	1	Low	Good
C	Roman Site	SM	A	A	Unknown	High	Unknown
C	Shooting Lodge		C	C	1?	Medium	?Good
C	WWII Camp		C	C	4	High	Fair
D	Old Copse Lodge		B	B	1?	Low	Good
D	Old Copse Drive		B	C	3-4	High	Poor
D	Thunderdell Cottages		D/INT	D/INT	1	Low	Good
E	Aldbury Terrace		A	A	2	Low	Good
E	Base Camp		C/D	C/D	1	Low	Good

E	Outward Kiln & Quarry		C	C	4	High	Poor
E	Outward Kiln Cottages		B	B	?1-2	Low	Good
A_E	Quarry Pits		C	C	2	Medium	Fair
A-E	Hollow Ways		C	C	2	High	Fair
A-E	Enclosure Boundaries		B	C	2	High	Fair
A-E	Ponds		C	C	3	High	Fair

8

Issues, Constraints and Opportunities

Issues

8.1 During the course of our site survey, collation of data, analysis a range of issues have emerged. These issues have been arranged by subject for ease of discussion. The Gazetteer, Part 2 of this report, also presents a range of more specific issues by character area.

Ecological Issues

8.2 Both of the SSSI units within the study area are classed as being in Favourable Condition according to the 2009 assessment by Natural England, however there are a number of issues and threats that affect the study area to varying degrees. The list below is based upon observations of the study area during field visits, and the Site Improvement Plan for the SAC (which is a site-wide approach and therefore not always directly applicable to the study area). Although this list is not quantifiably in order of importance, it does reflect the overall scale of importance of each of the issues:

1. Woodland management and succession of vegetation: whilst the individual issues below affect specific parts of the site, the management of the estate has the greatest impact upon its biological significance. The clearest example of this is the very small amount of open habitat within the study area: whilst there is one area of wood pasture, and a coppiced area (which are excellent contributions to the study area), the vast majority of the study area is closed-canopy woodland. That is not to say that this habitat is of anything other than high value or significance, only that some of the sites' other significant assets depend upon variety of management systems, for example: ancient and veteran trees that benefit from open areas around them, in particular to benefit their long-term health and the variety of invertebrates they support; birds such as redstart and hawfinch; butterflies such as purple emperor that benefit from a mix of scrub and closed-canopy woodland; amongst many others. Over the very long term, the previously more open commons have become increasingly dominated by dense silver birch re-growth, and previously open grassland on the scarp slope has been subject to succession of woodland and scrub. Historic records for species such as marsh fritillary (*Euphydryas aurinia*) are evidence that there was once much more open habitat that has now been encroached upon by trees;
2. Base data: there is a lack of base data on species, particularly birds, which makes it difficult to assess if management approaches are appropriate or successful;
3. Deer and squirrel damage. The two primary effects of the large numbers of these species within the study area are damage to existing trees, and the suppression of dense under-storey vegetation and re-growth of saplings. This latter is particularly evident in areas where holly would otherwise be a much greater component of the shrub-layer, but where most seedlings are browsed-off before they can become established;
4. Invasive plants: there are large areas of rhododendron and cherry laurel in the southern part of Old Copse and also by the Shooting Lodge. Both of these shrubs will grow to shade-out any other plants in the field-layer and are particularly challenging to control or remove.
5. Ash dieback: an issue that is in the course of affecting very large areas of the UK, it appears that some of the mature ash trees on the scarp slope woodlands may already be suffering from this fungal pathogen. There are two primary issues of concern here: ash trees close to areas of public access may need to be removed to manage the risk of limb-drop onto paths; and the loss of this tree from the canopy where it was previously present will leave a gap, to be filled eventually by other tree species. In many woodlands the replacement tree is likely to be sycamore, a species of dubious status as a UK native and not a currently significant component of the Ashridge woods;
6. Climate change: beech is particularly vulnerable to drier summers and wetter winters, and combined with more frequent extreme weather events such as high winds, could lead to the loss of this species from parts of the study area;
7. Public access: over much of the study area public access is not just limited to paths and dogs off leads are able to access virtually all of the study area with potential implications for nutrient enrichment from fouling, and disturbance of fauna (particularly birds). The most intensively used area – along Monument Drive and around the café are also the areas with perhaps the least biological interest: parking along the drive has created large areas of bare earth and the swathe of grassland along the Drive is generally species-poor and nutrient-rich and to the extent that Natural England now regard it as '*part of the site fabric'*. See figure 2.13.

Designed Landscape Issues

8.3 The main structure of the designed landscape is still strongly embedded in the landscape and is relatively simple to conserve. The issues around the presentation of the Monument, Monument Drive and Monument Cottage are much more long term – see Opportunities. Issues regarding the designed landscape include:

1. The presentation of the Bridgewater Monument has been eroded over time with the construction of the café and visitor centre and the loss of visual connection between the monument and the mansion, the surrounding countryside and the intrusion of parking along Monument Drive;
2. Monument Cottage was deliberately sited to be prominent from the Drive and Monument as an ornamental feature of the designed landscape. It has gained accretions all around it from the café and visitor centre to the barn and outbuildings in the garden. The garden is very visible to visitors;
3. Monument Drive: the WWII addition of the road has damaged the early C19 designed character and fabric of the Drive and the associated vista between the Monument and Mansion which from a historic view point would be a clear green carpet;
4. Monument Drive and the two flanking rides have become less distinct through invasive vegetation and encroaching canopies of mature trees preventing clear vistas as intended;
5. Parking on Monument Drive will impact negatively on the adjacent trees compacting their root zone and reducing their natural lifespan, and footfall is also causing compaction within the root zone of many trees along the Drive;
6. Visitor centre and café occupies a considerable area of the most important part of the historic landscape within the study area, and is directly visible from Monument Drive, the Monument and Monument Cottage;
7. Presentation and understanding of the views from the two Terraces are difficult to appreciate today. Vegetation has grown up to obscure views and works are needed to reinforce their design importance;
8. Fencing has been lost around the main woodland areas, Sallow Copse and Old Copse, which are not part of the registered commons, resulting in lack of demarcation and loss of potential grazing control;
9. Old Copse Drive is now in poor condition with a deteriorating surface, damaged banks, overgrown ornamental planting;
10. The historical value of the lodges and cottages is vulnerable. They are people's homes and need to be appropriate for modern living, but care needs to be taken when improvements are made;
11. Meadleys Meadow provides additional habitat diversity to the study area but it does not contain or directly support the qualifying habitats or species of the SAC or the SSSI and is relatively of less significance than the designated parts of the site. Further investigation of its botanical character would assist a more detailed assessment of its significance and the suspected variation in botanical quality between the northern and southern half.

Archaeological Issues

8.4 The following issues have been identified regarding archaeology:

1. Need to get understanding of the dating and reason for the colonisation of the hilltops in the Late Iron age/Roman period and the reason and dating of its decline later in the Roman period. Also need to understand the function and date of several sites within the area. In addition, need to understand more about the changing environment during this period and through the early medieval period when documentary evidence is lacking. This study would tie archaeology to nature conservation by explaining the origin and history of the habitats which are now present. The above aims could be gained by targeted excavation and geophysics accompanied by environmental sampling of buried soils and in wet locations where environmental evidence may be preserved;
2. Detailed LiDAR coverage has not been available for this study but will be later in 2019. This may reveal additional important features and amplify the understanding of the study area and its origins and development, changing the understanding of the archaeological significances;
3. The barrow at Moneybury Hill (SM) has been partly protected by fencing but is still suffering from erosion issues. The mature oaks on the barrow may be subject to windthrow, damaging the structure of the barrow and their condition requires monitoring;
4. The brash barriers at the barrows (SM) at the Bridgewater Monument are intended to be a temporary measure but if left will create earthworks of their own. The barrows are prone to erosion issues;
5. Elements of the WWII military features are still not well understood, particularly those north of Monument Drive and any further afield than this zone. Further documentary evidence may survive to help identify them and their development and function, particularly in public archives such as The National Archive at Kew. The remains of the camp south of Monument Drive are not evident to the public. Erosion of WWII camp paths is caused by pedestrian use and forestry extraction routes.;
6. Monument Drive was created in World War II, damaging the ornamental character of the Ride which was formerly a broad grass vista with an informal track along it that was not hard surfaced. It has its own significance as a key part of the wartime camp, but this is less than the national significance of the Grade II* Registered designed landscape;
7. Historic WWII graffiti on some of the trees is vulnerable to loss of trees and should be recorded as part of the social history of the site;
8. Various central hollow-ways are vulnerable to and sustaining damage from parking along the edge of Monument Drive;
9. In certain cases, the growth of scrub and mature trees is compromising the legibility and survival of features, particularly the Romano-British farmstead sites. Regular monitoring of condition is required and periodic reduction of scrub growth and assessment of the condition and effect of mature trees;
10. The Roman features are poorly understood. A topographic survey of known features and geophysics of the enclosures and field systems would help to increase understanding, possibly identify further features, and help to ensure that inadvertent damage to features is minimised;

11. Ashridge Estate has recently suffered from unlicensed metal detecting activity, leading to the loss of significant historic evidence;
12. Localised erosion of features, particularly boundary banks, has been caused by vehicle movement and footpaths;
13. Several excavations in the late 1980s and early 1990s have only been written up in summary form. A detailed report is required for each excavation, including assessment of the artefact material;
14. Outward Kiln is unstable and deteriorating further providing a hazardous feature; its importance locally is not clear;
15. The form of the ponds is vulnerable to change, particularly maintaining their historic outlines, e.g. spoil lining the edges changes these. There is the potential for loss of environmental evidence through desilting;
16. Hollow-ways and quarries are subject to brash infill, resulting in the loss of visibility.

Visitor Management Issues

8.5 Visitor infrastructure has evolved over the last century and what was appropriate for low numbers of visitors, probably predominantly of local origin mid C20, is now not ideal with over 500,000 estimated visiting the site per annum, predominantly by car. Therefore, issues here are easy to identify but more complex to solve. Visitor management issues include:

1. The location, quality and capacity of visitor facilities is inappropriate given the volume of visits to the site. The monument, café and visitor centre attract the majority of visitors to the centre of this special landscape resulting in the erosion of the grasslands and paths, cluttering of the designed core around the Monument and Monument Cottage, and creating significant impact on the SAC;
2. Parking facilities are inappropriate for a site of this importance; parking along Monument Drive is unnecessarily intrusive on the designed landscape and is reducing the ecological value of the grassland and woodland edge. There may be scope for relocating some parking onto the less ecologically important parts of Meadleys Meadow.;
3. Visitor information exists exploring patterns of use, peak numbers, why they are visiting the site, how long they stay, but more data would help develop a more comprehensive picture, for example, in its most simple form where do visitors go and how does it change seasonally, weekly and daily. It would also be useful for managers to know what is happening on the rest of the site away from the visitor centre, café and Monument Drive on peak visitation days, including how busy are the peripheral car parks when Monument Drive is at capacity?
4. The use of brash barriers across the base of the Monument is unsightly;
5. Common land status limits how the land can be managed; for example, government permission and agreement of the commoners needs to be sought to erect permanent fencing on common land;
6. The byway along Monument Drive permits access to vehicles from 7am-10pm which restricts traffic control measures. The width of the byway has not been legally determined and this has implications for charging for parking.

Constraints

8.6 There are significant and, in some cases, onerous constraints on management of the Ashridge landscape.

Legal Constraints

8.7 There are constraints from Deeds of Covenant conditions around the Old Dairy primarily preventing inappropriate development or activities on adjacent fields, and in woodland areas that are safeguarded for timber production. Common land acquisition came with a provision that the land be held as an open space for the benefit of the public.

8.8 A Deed of Declaration in 1970 appears to have granted the public rights of access to Aldbury common for air and exercise to any land which is a metropolitan common – even if the land is not a metropolitan common!

8.9 More detail is provided in Chapter 2 and illustrated in Figure 2.3.

Ecological Constraints

8.10 The main constraints derive from the international designation of a Special Conservation Area and national designation of a Site of Special Scientific Interest, both covering much of the study area. In addition, there are significant management constraints embedded in legislation protecting specific species. The areas covered by ecological designations are shown in Figure 2.5.

8.11 All these constraints are statutory and are presented in a table format below for clarity.

Table 8.1 Ecological Constraints

Constraint	Primary Legislation / Policy	Geography	Implications for Management
Chiltern Beechwoods Special Area of Conservation	The Conservation of Habitats and Species Regulations 2017	Most of the study area with the exception of Meadleys Meadow, the dairy fields and the brick fields. See Figure 2.5.	Section 2 provides details on the implications of this designation, and the processes that underpin decision-making. The primary restrictions translate into the following: No reduction in the area of qualifying features (i.e. beech woodland) No activity that would damage the structure or function of the woodland No actions that would lead to reductions in the population of stag beetles or changes in their distribution (if they are present) These implications are reinforced by the protection afforded by the SSSI designation (see below). As with the SSSI designation, the precautionary principle should apply to decision making, and where there is any reasonable likelihood that an action would lead to an adverse effect on the ecology of the study area it is prudent to assess this in detail, often in consultation with Natural England.

Constraint	Primary Legislation / Policy	Geography	Implications for Management
Ashridge Commons and Woods SSSI	The primary instruments of protection for Sites of Special Scientific Interest are *The Wildlife and Countryside Act 1981* (as amended) and *The Natural Environment and Rural Communities Act 2006* (the NERC Act). *The Countryside and Rights of Way Act 2000* (the CRoW Act), affords additional powers to statutory bodies in relation to SSSI but does not substantially change the nature of protection or the actions that would be considered an offence. SSSI are also protected via the planning system, specifically through the National Planning Policy Framework (NPPF) as amended in 2018 and 2019.	Most of the study area with the exception of Meadleys Meadow, the dairy fields and the brick fields. See Figure 2.5.	*The Wildlife and Countryside Act 1981* (as amended) prohibits any action that: "*intentionally or recklessly destroys or damages any of the flora, fauna, or geological or physiographical features by reason of which land is of special interest*" without the prior notification of, and subsequent agreement with, Natural England. Actions likely to give rise to the contravention of this provision are listed in "Operations Requiring Natural England's Consent". The list is extensive and effectively requires agreement with Natural England before any action that will materially affect any of the features for which the site is designated, including the woodlands and the notable bird species, but also potentially extending to the other supporting habitats mentioned in the citation including plantation, scrub, a more open component dominated by bracken, and grassland. The NERC Act extends this protection to prohibit any action that: *"(a) intentionally or recklessly destroys or damages any of the flora, fauna, or geological or physiographical features by reason of which a site of special scientific interest is of special interest, or* *(b)intentionally or recklessly disturbs any of those fauna*". The NPPF obliges Local Planning Authorities to refuse planning consent for any application that is likely to have an adverse effect on the SSSI. In summary, part of planning for any change to the management of the study area or any material change to the physical structures and ecological processes within, is to assess any potential impacts on the SSSI (and the SAC), in consultation with Natural England and with the support of suitably qualified professionals where appropriate.
Dormice	*The Conservation of Habitats and Species Regulations 2017* *The Wildlife and Countryside Act 1981* (as amended)	There is a historic record of dormice from Sallow Copse. Recent surveys carried out by the National Trust did not record any dormice however, and they may no longer be present.	Where judged appropriate, any planned changes to the structure or function of habitat suitable for dormice (which includes bracken and scrub as well as woodland, but excludes open grassland and man-made habitats) may be preceded by surveys to determine if dormice are still present. The legislation makes it an offence to kill, injure or disturb dormice, and also to damage or destroy a breeding site or resting place. The nature and scale of any works should be considered when determining if action is required to avoid harm to dormice: small-scale and / or temporary works may be unlikely to lead to an offence. In the unlikely event that works are planned in an area in which dormice are known to be present, a licence may be applied for from Natural England to allow the action to go ahead.

Constraint	Primary Legislation / Policy	Geography	Implications for Management
Great crested newts	*The Conservation of Habitats and Species Regulations 2017* *The Wildlife and Countryside Act 1981* (as amended)	There are records of great crested newts in the habitat surrounding the study area but they have not been confirmed as present within the study area, and none have been recorded within 250 m of the study area.	Great crested newts are afforded the same protection as dormice, which means that the animals themselves are protected, as are their habitats. For newts, this means that rough grassland is also potential habitat. As with dormice, the nature and scale of planned work should be considered in advance when deciding whether to survey for newts or apply for a licence.
Bat roosts in buildings	*The Conservation of Habitats and Species Regulations 2017* *The Wildlife and Countryside Act 1981* (as amended)	Roosts have been recorded from Old Copse Lodge Cottage and Monument Cottage. Roosts may be present in other buildings	Bats and their roosts are protected. Even when the bats aren't present the roost remains protected. The most common places to find bat roosts on buildings is in loft spaces, under roof tiles and under wooden fascias, barge-boards and soffit boxes. If any works are planned to an area where bats might be roosting, it would be inspected by a licenced ecologist, and if necessary, evening and / or dawn surveys may be carried out. In the unlikely event that works are planned in an area within or sufficiently close to, a bat roost, a licence may be applied for from Natural England to allow the action to go ahead.
Bat roosts in trees	*The Conservation of Habitats and Species Regulations 2017* *The Wildlife and Countryside Act 1981* (as amended)	The most obvious potential roosting features are in the large veteran trees, but bats can also roost in very small diameter trees in features such as frost cracks. All areas of woodland may contain bat roosts.	Conducting an inspection prior to felling or other arboricultural work (such as removing overhanging limbs or other dead wood) would determine whether there are any suitable roosting features. Evening and / or dawn surveys, or tree-climbing surveys, may be required to confirm whether bats are present. In the unlikely event that works are planned in an area within or sufficiently close to, a bat roost, a licence may be applied for from Natural England to allow the action to go ahead.
Foraging and commuting habitat for bats	*The Conservation of Habitats and Species Regulations 2017* *The Wildlife and Countryside Act 1981* (as amended)	Woodland, rides, fields and all habitats except hard standing provide potential habitat. These will be of varying degrees of importance.	The Habitats Regulations includes prohibition of actions that would impair bats ability to survive, breed or reproduce whilst this usually relates to impacts on roosts, removing or severing a key commuting route between a roost and foraging grounds could also have this effect. Changes to any linear features that have the potential to be used as key commuting routes may need to be supported by surveys to determine their importance for bats. This may be of particular importance with regard to barbastelle bat roosts. Where such effects may occur they can often be mitigated by the provision of alternative habitat, although in some cases this may need to be in place before the effect occurs.
Nesting birds (general)	*The Wildlife and Countryside Act 1981* (as amended)	All woodland, scrub, trees and shrubs have potential to be used for nesting	Clear vegetation outside of the period March to August (inclusive) or check first to ensure there are no nests in use or being built

Constraint	Primary Legislation / Policy	Geography	Implications for Management
Nesting birds (Schedule 1 species) – species may include: firecrest barn owl woodlark peregrine hobby red kite	*The Wildlife and Countryside Act 1981* (as amended)	The schedule 1 birds that may occur within the study area are most likely to nest in conifer plantations, broadleaved woodland and / or veteran trees.	In addition to the protection afforded to all wild birds, Schedule 1 adds protection to prevent disturbance of birds whilst they are nesting, when they are "at, on or near" the nest. Effort therefore needs to be made to ensure that these species are not breeding in a given area before undertaking any work that could disturb them.
Badger setts	*The Protection of Badgers Act 1992*	Any work within 30m of a sett. None were recorded during the most recent surveys, but a systematic search of the study area has not been completed.	The presence of a badger sett should not generally place great constraint on planned work – typically vegetation removal with hand tools is unlikely to lead to disturbance. A precautionary guide is that there should be no heavy machinery within 30m of a sett, no light machinery within 20m and only hand tools within 10m.
Reptiles	*The Wildlife and Countryside Act 1981* (as amended)	Most likely to be found on ride-sides and field edges	Most small-scale works within the study area will carry very little risk of harm to reptiles. Should there be a need to remove substantial areas of suitable vegetation it may be appropriate to have it checked for reptiles beforehand.

Archaeological Constraints

8.12 There are three **scheduled monuments** within the study area, the Bell Barrow at Moneybury Hill, Roman Site at Moneybury Hill and Two Barrows adjacent to the Bridgewater Monument. Works and changes to these features need the consent of the Secretary of State for Digital, Culture, Media, and Sport. Applications are made to Historic England – see **Figure 2.6**.

Architectural Constraints

8.13 Buildings of particular quality are protected by listing. The Bridgewater Monument is a **listed building** and any changes to the structure, for example structural or cosmetic repairs, or alterations affecting the setting of the building, require the consent of the Secretary of State for Digital, Culture, Media, and Sport under Section 7 of the Planning (Listed Building and Conservation Areas) Act 1990 (LBCA Act). Application for listed building consent is made to the local planning authority -see **Figure 2.6**.

Designed Landscape Constraints

8.14 Monument Drive and Old Copse Drive form part of the 'Ashridge' listing on the Historic England Register of Historic Parks and Gardens 1987. The designation is not statutory but provides context to the local planning authority when considering change if planning applications are made affecting the designation. Historic England and the Gardens Trust are statutory consultees in this planning process – see **Figure 2.6**.

Landscape Constraints

8.15 The whole of the study area falls within the Chiltern Hills **Area of Outstanding Natural Beauty (AONB)**. The designation ensures the relevant local authority, must make sure that all decisions have regard for the purpose of conserving and enhancing the natural beauty of the AONB.

Decisions and activities must consider the potential effect it will have within the AONB and land outside its boundary. Thus, it is a planning designation that adds further landscape consideration if planning permission are being considered.

Access Constraints

8.16 The designation of common land which applies to the Aldbury and Pitstone commons on the site confer restrictions on operations and activities that can occur without having to seek approval of the Secretary of State for Environment Food and Rural Affairs. In addition, those commoners' rights in Albury and Pitstone would have to be consulted over major change. The most relevant constraint means that erecting permanent fencing is extremely difficult as it is against the spirit of common land, which is unenclosed, and would be subject to gaining the aforementioned permissions. Activities not permitted on common land are described in Chapter 2.

8.17 Open access land designation, conferred through the CROW Act 2000, enshrines the principle of access to these areas and constrains activities that are inappropriate. See Chapter 2 for details.

8.18 Statutory footpaths and bridleways: these routes which are identified by the planning authority, see Figure 2.7, cannot be realigned or closed without permission from the local authority which would need to make a Public Path Order and go through a period of consultation before being possible. If a Public Path Order is opposed, then the decision has to be referred to the Secretary of State.

8.19 Monumnet Drive is a byway open to all traffic. This means that it is open at all times under the Wildlife and Countryside Act 1981, but this has been modified locally by Dacorum Borough Council through a Traffic Regulation Order to being open between 7am-10pm. There is currently clarification underway to determine the width of the byway - see Figure 2.7.

Opportunities

8.20 The following opportunities have been developed by addressing the key identified earlier in the chapter and taking into account the constraints above.

Ecological Opportunities

8.21 There are significant ecological opportunities to enhance and conserve the quality of the SAC and SSSI, very much in keeping with the Trust's strategic objectives identified in *Playing our Part* – see Chapter 1. These include:

1. Monitoring of key species: the effectiveness of any management interventions should be monitored against the presence and abundance of species that are intended to benefit from it: a monitoring programme that can be implemented by the estate team on a regular basis is likely to be the most practical approach, taking advantage of the considerable skills and knowledge available;
2. Manage woodlands to increase the amount of:
    2.1. wood pasture – candidate areas for this include expanding the existing area in the south of Sallow Copse and reducing the abundance of silver birch. This can also be targeted at areas where there are significant or large numbers of veteran trees that would benefit from thinning around them, as has been done for example around 'Bob's Oak';

2.2. coppiced woodland: expanding on the coppiced area of sweet chestnut in Old Copse and creating new areas, perhaps in the sweet-chestnut of Sallow Copse, and by expanding around the existing bracken glades. This would need to be completed in conjunction with a form of deer control – either reducing numbers or excluding them from coppice coupes;

2.3. rides: creating a wider gradation along ride-sides through Sallow Copse to increase the amount of open habitat and scrub, which would benefit a variety of taxa including birds, Lepidoptera and dormice.

3. Grassland and species-rich scrub on the scarp slopes. Given the dominance of closed-canopy woodland along this slope, there are many areas where there would be good opportunity to thin the canopy or fell areas of woodland. This could be combined with opening up of views and protecting archaeological features such as Moneybury Barrow, and the view from the Bridgewater Monument;

4. Monitor and manage ash dieback to limit its adverse ecological effects;

5. Regularise car parking and visitor access along Monument Drive to manage its on-going impacts on the adjacent woodland habitats and consider the opportunity to relocate some car parking onto the ecologically less significant parts of Meadleys Meadow. Changing management practices in the southern half of Meadleys Meadow, such as removing grazing pressure, may enable a clearer assessment of its current and potential botanical value;

6. Managing animal species that damage the woodland i.e. deer and squirrels. In the case of deer, options include reducing numbers or excluding them from selected areas. There are various methods available to control squirrel numbers, and this can be effective at reducing tree damage. However, this should only be undertaken as part of a detailed management strategy and in the certainty that there is sufficient resource for the future to continue the management – squirrels will rapidly recolonize areas once they have been removed, and it may not be feasible in this case to have a significant effect on numbers in the long-term;

7. Remove non-native species of rhododendron and cherry laurel either side of Old Copse Drive and replace with native species with the goal of recreating the shrub layer design effect with native species;

8. A long-term ambition could be to change the current management of Monument Drive. Reinstating it as a grassed avenue linking the Monument with the Mansion would be an excellent opportunity to create high-value habitats with scalloped edges and gradations from short grassland, rough grassland, scrub and woodland, with character added by some of the veteran trees already present. This would allow some targeted tree removal to align the drive to its original view.

Designed Landscape Opportunities

8.22 As stated earlier many of the opportunities around the designed landscape are long term, such as any future relocation of the visitor centre and café, but the main contribution to conserving the landscape lies in maintaining the status quo, not losing features, so that in the future more active restoration will be possible. Opportunities include:

1. Long term, restore the open grassland setting of Bridgewater Monument and Monument Cottage as key features in the designed landscape and relocate the visitor centre and café

away from the main historic core of the study area;

2. Improve Old Copse Drive with better surfacing and a reduced number of carefully managed ornamental shrubs. Replant specimen ornatmental trees where compatible with SAC objectives;
3. Maintain lodges as valued elements of the designed landscape with modifications sensitive to their original design;
4. Improve Duncombe and Aldbury Terraces as key designed landscape features ensuring views from them to the west are maintained; link them where possible to other designed landscape features in the study area including the Monument Drive and Rides and Old Copse Drive;
5. Reinforce the early C19 designed character and fabric of Monument Drive ensuring the associated vista between the Monument and Mansion;
6. In the long term there may be an opportunity to integrate more of the original designed landscape – Ashridge study area and parts of Ashridge House and/or golf course - by harmonizing management approaches where feasible.

Archaeological Opportunities

8.23 Archaeological opportunities include:

1. Revive and support the programme of volunteer-based archaeological condition monitoring across the survey area and across the estate;
2. Comprehensive management plans for the scheduled sites are essential for appropriate management, as well as for a number of key sites which remain unscheduled such as the Roman enclosures, the woodland enclosure banks and ditches and the WWII camp;
3. Develop a management plan for Monument Green that will lead to the protection and enhancement of the condition of the scheduled barrows;
4. Utilise the forthcoming Chilterns LIDAR data to enhance the current archaeological record held on the archaeology database for the survey area, and particularly areas that might be impacted by car parking proposals;
5. There is high potential for useful data from further evaluation of archaeological features, especially the Roman enclosures, through geophysical surveys and limited targeted excavation;
6. Through limited scrub clearance and signposting enhancing the public's use and understanding of the WWII camp on Monument Drive;
7. Introduce further shoring to support the remains of the Outwood brick kiln;
8. Complete outstanding reports for previous excavations and raise the standard of archiving to accepted professional standards;
9. An archaeological guidebook or some other means of interpretation would provide opportunities are available for public appreciation of archaeological features;
10. While the archaeological survey reports are not currently available to the public they could be made more widely available if they were hosted on the property website.

Visitor Management Opportunities

8.24 The Trust has been undertaking various reviews of parking options and collecting visitor data to better inform approaches to visitor management. Opportunities for relocation of any of the visitor facilities are heavily constrained by designations, particularly the SAC, and the foreseeable focus is likely to be on improving what exists rather than wholesale relocation. However, this should not prevent long term ambition, it just may be rather long time before it can be realised.

1. Improve existing café and visitor centre, ideally moving towards a more integrated facility – toilet facilities have been improved for the short term, and when funds become available a new more intergrated café / visitor centre could be developed;
2. A more modern visitor centre would offer new opportunities to educate visitors on the fragility, importance and potential of the landscape with particular reference to dog walkers and potential disturbance and nitrification of their animals;
3. Parking along Monument Drive, however undesirable from an ecological and designed landscape point of view, appears to be the only practicable solution for the immediate future. Trust staff have undertaken a review of other potential sites and conclude that other sites are currently unavailable: the constraints placed by international and national designations covering almost all of the land owned by the Trust makes relocation a long term aim but not a short term possibility;
4. Use of the northern areas of Meadleys Meadows as overspill parking, subject to assessing impact on the grassland, could be adopted as policy on peak days. A detailed survey of the meadow flora could identify the areas most able to sustain this pressure;
5. Resolution of the byway width to 5.5m would allow for the Introduction charges for parking. Given the numbers visiting Monument Drive, and the fact that only around 20% of current visitors are Trust members who would park for free, parking charges at relatively modest levels would generate significant income. This would become a major source of funding for the increased management of the SAC and the re-establishment of wood pasture/grazing;
6. Continue the programme of data gathering about visitor numbers and use to create a systematic and detailed picture of visitor needs and trends;
7. Use the re-establishment of former land management practices such as grazing and more extensive coppicing as increasing the visitor appeal. There may also be opportunities in re-establishment of wood pasture to use heavy horses for extraction;
8. Longer term it may be possible to promote access to the wider Ashridge House and Estate looking to integrate visitor experience of the landscape under different management ownerships becoming more seamless.

9 Discussion

9.1 Ashridge Estate is of international and national importance for its ecology, national importance for its designed landscape, and national importance for its archaeology. Much of this value derives from past cultural management of landscape under the mediaeval commons system and whilst most of the landscape management practices from this period have now ceased the legacy is this rich and diverse landscape. It is an exceptionally precious resource.

9.2 The site is hugely popular as a visitor resource with estimates of over half a million people visiting the site per year. Monument Drive, the Bridgewater Monument and visitor centre / café are intensively visited during peak holiday periods and can be very busy on sunny days, particularly weekends, throughout the year. Research shows that highest visitor levels coincide with the natural attractions of the bluebell season in early summer and autumn leaf colour as well as school holidays. Almost all visitors arrive by car and many visit with dogs using the site as exercise ground for their animals.

9.3 The site has very open access. There is a comprehensive network of footpaths, bridleways and byways crossing the site and the former common land is open access land, creating huge tracts of landscape that can be explored on foot. The site is also crossed by several regional trails such as the Chiltern Way, Icknield Way and the Hertfordshire Trail, and is close to the Ridgeway which starts from Ivinghoe Beacon and passes near the study area.

9.4 This site exhibits many of the wider issues facing the National Trust today. The Trust is striving to attract more members and visitors, to spread its message of appreciating and enjoying natural, designed and cultural landscapes, and significant architecture. The Trust has developed two major strategic strands addressing visitor welcome and the management of its natural sites. In 2015 *Playing our Part* identifies a 10-year strategy for the Trust, targeting the improved management of the ecologically rich landscapes it owns and, where possible, to expand their ownership of such sites. In 2018 the Trust published 'Growing our care for nature' in which it supports the importance of establishing connections between people and natural places and focuses on creating emotional links to nature.

9.5 Sites like Ashridge are at the heart of these strategies. It is one of the largest areas of open access countryside in its region, a beautiful landscape offering extensive walks through mature woodland with occasional long-distance views over rolling landscapes to the west as well as large a area of open grassland in Meadleys Meadow. Monument Drive offers significant parking leading to a café, visitor centre and toilets. It is no surprise that it attracts around half a million visitors a year.

9.6 In many ways this fragile unique site is functioning as an 'everyday' Country Park[44] for many of its visitors, the majority of whom come from within a 12-15km radius. Adding to the mix is the pressure to build new homes in the immediate setting of Ashridge with hundreds of new homes forecast over the next 20 years which will significantly increase pressure of numbers from regular local visitors, particularly dog walkers.

9.7 The very popularity of Ashridge, however, is also a threat to the ecological and historical value and fabric of the site and the very things that people cherish are at risk from overuse. The problem at Ashridge is accentuated by long-standing open access, uncontrolled free parking and the difficulty international and national designations impose on delivering management options and operations. But at the same time, the Trust seeks 'to understand how and why diverse communities use, or might want to use, our outdoor spaces, we will be able to support underrepresented groups to use and occupy these spaces on their own terms'[45]. With this enlightened strategy to 'welcome all' to its sites and with a desire to expand the emotional responses of greater numbers of people to their (local) environments, the circumstances and management policies point to greater numbers of visitors to Ashridge rather than less.

9.8 Every site has a finite visitor capacity beyond which irreversible damage to the significant aspects will occur and Ashridge is no exception. However, there is no evaluation of the point at which this will be reached for Ashridge as a whole. The spine of the study area running along Monument Drive is the most highly used and also the most vulnerable to damage, potentially irreversible, particularly to unique assets such as the Scheduled Monuments. Mitigation measures

[44] A country park is a specific recreational facility originally promoted by the then Countryside Commission during the 1970s to act as an attraction to car bourn visitors away from sensitive tracts of land that were being damaged by over-visitation. They were usually created near to large urban populations. They had to provide toilets and a car park, and then maybe a cafe or kiosk, paths and trails, and some information for visitors. Some have much more, with museums, visitor centres, educational facilities, historic buildings, farms, boating, fishing, and other attractions. The landscape was often visually attractive but not necessarily of particular sensitivity and they were designed and managed to cope with large numbers of car visits.

[45] Current policy, personal communication.

may help to increase this capacity.

9.9 The Trust Draft Vision for Ashridge, produced by the site managers, is as follows:

> *Comprising some of the most stunning and best-loved landscapes in the Chilterns, Ashridge is a place of* ***peace, tranquillity, diversity and beauty****.*
>
> *It's a place where* ***layers of history are protected****, valued and shared with the* ***widest possible audience;*** *where the past and the present flow seamlessly together into an* ***accessible and innovative approach to outdoor connections, programming and engagement****.*
>
> *It's a place where* ***nature conservation is our guiding light****, our biggest priority and our greatest achievement. This is visible through exemplary standards of farming and food production, through the conservation and care of our wooded habitats, ancient and veteran trees and the quality of our grassland habitats and the biodiversity they support.*
>
> *It's also a place where everything we look after receives the highest possible standard of care and where everyone's contribution is valued and rewarded.*
>
> *It's a place where we are truly proud of everything we do and the way that we do it. Everyone who comes here, in whatever capacity, will leave with* ***a deeper understanding of how we look after this special place and why it matters****.*

9.10 The following discussion focuses on the values and aspirations expressed in this vision and evaluates whether, and if so how, the key elements, identified in bold above, can be delivered over time.

Analysing the Vision and How it may be Delivered

Element 1: peace, tranquility, diversity and beauty

9.11 Delivering these values should be at the heart of the management ethos because they differentiate the landscape from so many other accessible spaces that are more commonly intensively used and necessarily functional, where management is focused on accommodating large numbers of visitors in relatively small spaces.

9.12 It is not that large numbers of visitors are not anticipated at Ashridge, but it is more that, given the size of the site, dispersing those wanting to find these values and experiences can be, at present, accommodated. For example, whilst it may be harder to find tranquillity on a Sunday in peak bluebell season most visitors will be concentrated into relatively small areas of the site and there will be other areas less visited and quieter even on such days. During the week and particularly out of 'high season', tranquillity and peace should be attainable. Daily variations are also important: peace may be found over most of the site at six in the morning!

9.13 Diversity and beauty already exist. In some cases, where they have been diminished, these qualities can be restored through careful management. The retention and enhancement of these elements of the vision depend largely on the effective delivery of the other aspects as discussed below.

9.14 There is a need to develop a system that can detail the trajectory of visitor numbers, describe where their effect is damaging the site, and that can identify the capacity beyond which irreversible damage will be caused. This visitor assessment and engagement plan could take the

form of an Audience Development Plan, which is already an established framework for evaluating engaging communities for public parks, supported by a long-term ecological baseline from which the visitor impacts on the ecology can be established.

Element 2: where layers of history are protected….and shared with the widest possible audience

9.15 We interpret this in its widest sense to include archaeology, past management and designed landscape history. All of these historical elements have high significance and when viewed together are of national significance. They have also been integral to the development of much of the wildlife and habitat value. There is a rich archaeological story to tell at Ashridge from Neolithic to recorded time with features still easily readable in the landscape. Good management of these features will only enhance the ability to communicate their importance and significance.

9.16 The past management of Ashridge with its history of common land management is something that is harder to read on site today but with the reintroduction of past management practices such as grazing wood pasture, and expanding other practices such as coppicing, the diversity and richness of the landscape will begin to return. This will also provide enhanced ecological opportunities as well as diverse interpretation opportunities.

9.17 Adding to this picture and diversity, the coherent presentation of the historic designed landscape, linked to interpretation of the once larger Ashridge Park/Estate landscape and its social /cultural history again provide layers to the interpretive tapestry.

9.18 Carefully implemented, improvements to the presentation of historic layers will have beneficial impacts on the ecological value of the Estate.

Element 3: accessible and innovative approach to outdoor connections, programming and engagement….deeper understanding

9.19 This is an area that is already well underway with resources for visitor centre staff, interpretation material and ranger staff available to lead engagement activities. Volunteering is making a contribution to works needed on the ground whilst building the emotional connections between people and place gained through interaction with natural environment. Events are programmed through the year and school engagement is developing targeting younger audiences in which to inspire a love and appreciation of the natural environment. Given appropriate funding and facilities this element of the vision can be delivered comprehensively and innovatively to reinforce the connection between visitors and the natural environment.

Element 4: nature conservation is our guiding light

9.20 The ecology of the site is of international significance (SAC) for its beech woodland as well as being recognised nationally as an SSSI for its bird fauna, an ancient woodland site and ancient and veteran trees. Whilst it supports significant wildlife today this value may have declined over the past century or more with the decline in the past common land management practices and/or with general changes to wildlife populations due to a myriad of external factors beyond the control of the site managers.

9.21 The question today is to understand the trajectory of the wildlife population and habitat value and to evaluate whether the biodiversity of the site is improving or declining. At the same time the impacts of encouraging large numbers of visitors to the site is having on the SAC/SSSI need to be

understood. The only way to be more definite about the impacts of visitors is to instigate a programme of long-term monitoring to assess the trajectory of the changes taking place.

9.22 On a positive note, it is relatively simple to start to reclaim the habitat diversity of the past by slowly restoring wood pasture, areas of grassland, larger areas of coppice and opening up the rides that form the biodiverse woodland edge. However, this requires greater resources than at present are available, particularly staff/volunteers.

9.23 There will be issues with the reintroduction of grazing associated with traditional wood pasture and grassland management, not least with dogs off lead. Permanent fencing off of the commons is not being suggested but temporary fencing can be introduced to control stock. There are also opportunities to fence off woodland areas including Sallow Copse and Old Copse, to protect the ground flora and fauna and encourage further diversity physically, visually and ecologically. There are also opportunities to erect deer-proof fencing in areas of woodland to see if the ground flora recovers without grazing by deer. If this is successful, then rotational enclosures could be used to re-establish the ground flora layer beneath the canopy.

9.24 Site staff have identified that there is a major need to provide good quality, attractive circular routes from the visitor centre to reduce trampling, erosion and disturbance, particularly taking account of peak periods such as Easter and bluebells. Rangers are introducing two new waymarked paths to complement two that already exist, and it is hoped that these routes will encourage visitors to use specific paths and discourage them from wandering through the undergrowth. In addition, maintaining the historic path network in good condition, such as the walks to both Duncombe and Aldbury terraces, Old Copse Drive and showing how they link to the visitor centre, would allow greater dissipation of visitors over a wider area without disrupting ecologically sensitive areas by using paths that already exist.

Delivering the Vision

9.25 Figure 9.1 provides a suggested masterplan of the vision bringing together some of the main themes that can be shown graphically. It is based on detailed discussion with site and NT consultancy staff as well as observations of issues by the authors of this report. Thus, areas of potential wood pasture and coppice have been identified as have the historical routes and main vistas. In describing a possible approach to achieving the vision we have focused on the four topics addressed in Chapter 8, namely ecology, history, archaeology and visitor management. Guidance has been set out over three time periods:

- Short term: actions that could be carried out over the next five years some of which may already be in hand and some that should be embarked on immediately;
- Medium term: actions that could be carried out over the next 6-15 years;
- Long term: actions that could be realised after a significant period of time, 15-30 years.

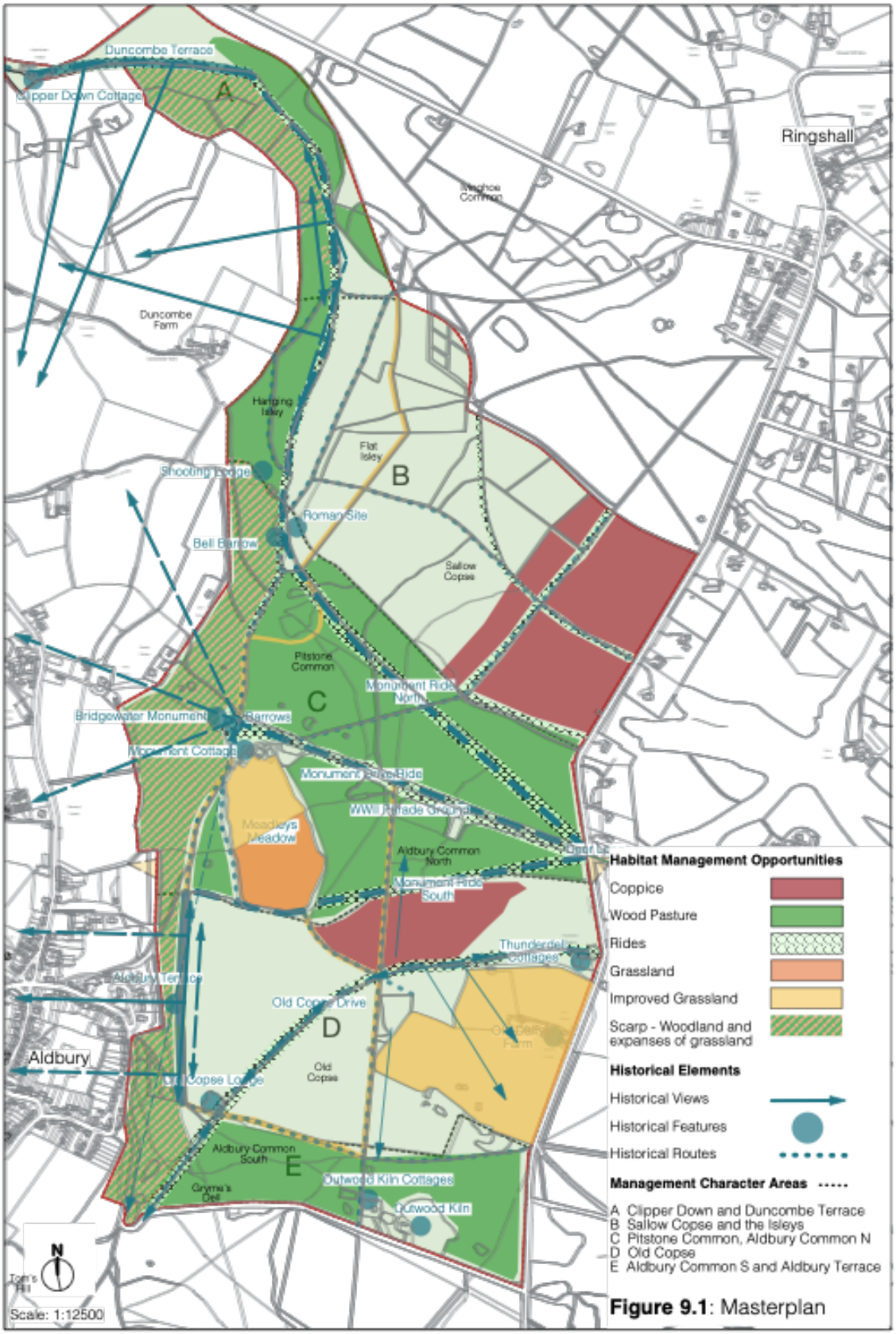

Figure 9.1: Masterplan

9.26 The key to the long-term sustainability and enhancement of the site can be summarised in six key actions:

1. Continue to undertake works to improve the ecological health of the SAC/SSSI most notably by:
    1.1. reinstating wood pasture over significant areas of the historic common land area;
    1.2. reintroducing grazing to manage the wood pasture;
    1.3. expanding coppicing operations to large areas of Sallow Copse and Old Copse;
    1.4. managing pests reducing overgrazing of woodland floor;
    1.5. control or remove non-native invasive species that are detrimental to ecological health;
    1.6. responding to nationwide tree epidemics.
2. Manage Monument Drive and existing car parks at Baracks Square and the visitor centre, as the main parking resource in the short to medium term, accepting that it is not ideal, but using it to create sustainable income through the introduction of parking charges that can support significant improvements to the management of the SAC, visitor facilities and main historical / archaeological features. Explore the potential of using Meadleys Meadow for additional parking in combination with the Drive and existing car parks;
3. Work towards a long-term goal of relocating visitor facilities accepting that this will take time and may not be achievable for many years. In the meantime, facilities should be improved and integrated. In the medium term there is potential to moving facilities to the car park site adjacent to the current buildings;
4. Manage dispersal of visitors to the heritage core via promotion of a network of surfaced paths and points of interest away from Monument Drive;
5. Establish a programme of ecological monitoring to define changes in the wildlife habitats and populations, and the trajectory of the SAC/SSSI, and the effects of visitors and appropriate management on the trajectory;
6. Continue a programme of visitor / car park surveys to broaden understanding of visitor needs and patterns use.

The more detailed actions that could be undertaken are as follows:

Ecological Management and Enhancement

9.27 *Short term*:

1. As a priority introduce comprehensive monitoring of key species/habitats to start a baseline for assessment of the trajectory of the habitats and populations of the SAC/SSSI, including botanical investigation of Meadleys Meadow
2. Start to manage the woodlands to:
    - Increase wood pasture, e.g. trial an area in the south of Sallow Copse by reducing Silver Birch and introducing temporary fenced grazing;
    - Expand coppice in Old Copse and other areas, see Figure 9.1;
    - Remove non-native invasive species that are detrimental to ecology;

3. Create wider gradation of the edge of path – woodland edge along rides, eg along areas being promoted as new marked walks;
4. Open up areas of grassland within the more recent secondary woodland and introduce grazing with temporary fencing;
5. Monitor ash dieback and any other major pests and diseases;
6. Continue with an effective programme of deer and squirrel management to minimise damage to significant habitats and wildlife populations;
7. Replant shrubs and trees alongside Old Copse Drive to evoke the historic ornamental planting using natives including yew, holly, box, and natives particularly beech and oak.
8. Maintain messaging on the need for dog management;

9.28 *Medium term*:

1. Continue comprehensive monitoring of key species/habitats;
2. Remove conifer stands and replace with broadleaved species;
3. Monitor ash dieback and any other major disease;
4. Continue with an effective programme of deer and squirrel management to minimise damage to significant habitats and wildlife populations;
5. Continue to improve foot paths surfacing and repair to discourage visitors from straying into the woodland;
6. Continue visitor messaging to enhance understanding of the ecological value of the site;
7. Continue to expand areas of wood pasture across Pitstone and Aldbury Commons.

9.29 *Long term*:

1. Continue comprehensive monitoring of key species/habitats;
2. Monitor ash dieback and any other major disease;
3. Continue with an effective programme of deer and squirrel management to minimise damage to significant habitats and wildlife populations;
4. Continue to reinstate areas of wood pasture across Pitstone and Aldbury Commons;
5. Continue to improve foot paths surfacing and repair to discourage visitors from straying into the woodland;
6. Continue visitor messaging to enhance understanding of the ecological value of the site;
7. Maintain messaging on the need for dog management;
8. Recreate or evoke the grassy vista along Monument Ride minimising the visual and physical effects of visitor facilities and parking.

Designed Landscape

9.30 *Short term*:

1. Manage the vegetation bordering Monument Ride and the two flanking rides of the goose foot to re-establish the extensive vistas flanked by trees in the pattern shown on the late C19 OS;
2. Restore the planted environs of Duncombe and Aldbury Terraces as key designed landscape features. Link them via a circuit route with the other designed landscape features in the study area including Old Copse Drive and the goose foot of rides;
3. Restore Old Copse Drive with improved surfacing and carefully managed shrubs and trees to evoke the historic pattern of planting by the late C19;
4. Depending on when leases are renewed improve the presentation of the Lodges to evoke their historic contribution to the ornamental landscape;
5. Manage dead wood (standing or fallen). Ideally it would not be prominent in key views and in the environs of key routes particularly Old Copse Drive, and Aldbury and Duncombe Terraces but this needs to be balanced with its ecological value;
6. Explore the possibilities of more integrated management approaches with Ashridge Park.

9.31 *Medium term*:

1. Restore the setting of Bridgewater Monument and Monument Cottage as key features in the designed landscape either by:
    1.1. reducing the impact of the visitor centre and café on the historic core of the study area through redesign - integrating the café and the visitor centre under one roof;
    1.2. or, through minor relocation of a new visitor complex to the car park area currently adjacent to the existing facilities and removing buildings immediately adjacent to Monument Cottage. This would allow the site of the current buildings to be returned to grassland;
    1.3. Ideally, if the opportunity arose, relocate the visitor facilities as a whole to another location, not within the SAC. This will almost certainly require additional land purchase that may be in line with *Playing our Part* strategy but will require funds to be found to be realised and will, thus, probably be a long-term aspiration.

9.32 *Long term*:

1. Restore the early C19 designed character and fabric of Monument Drive and the associated vista including Princes Riding between the Monument and Mansion which was originally a grassy ride. Trim the trees lining Prince's Riding and Monument Drive and remove or minimise associated parking.

Archaeology

9.33 *Short term*:

1. Revive and support the programme of volunteer-based archaeological condition monitoring across the survey area and across the estate;
2. Draw up comprehensive management plans for the scheduled sites which are essential for appropriate management, also for unscheduled key sites including the Roman enclosures, the

woodland enclosure banks and ditches and the WWII camp;

3. Develop a management plan for Monument Green that will lead to the protection and enhancement of the condition of the scheduled barrows;
4. Utilise the forthcoming Chilterns LIDAR data to enhance the current archaeological record held on the archaeology database for the survey area, and particularly identify areas that might be damaged by car parking proposals;
5. Through limited scrub clearance and signposting enhance the public use and understanding of the WWII camp on Monument Drive;
6. Host NT archaeological survey reports on the property website.

9.34 *Medium term*;

1. Undertake further evaluation of archaeological features, especially the Roman enclosures, through geophysical surveys and limited targeted excavation;
2. Complete outstanding reports for previous excavations and raise the standard of archiving to accepted professional standards;
3. Introduce further shoring to support the remains of the Outwood brick kiln and develop a long term strategy for its consolidation and preservation;
4. An archaeological guidebook or some other means of interpretation would provide further opportunities available for public appreciation of archaeological features.

9.35 *Long term*:

1. Undertake further evaluation of archaeological features, as required, through geophysical surveys and limited targeted excavation.

Visitor Management

9.36 *Short term*:

1. Continue with the process to formalise the status of the byway to determining its width in law and the options this provides for future charging;
2. Explore options for use of Meadleys Meadow as an additional parking resource and how this additional capacity could alter future parking strategies;
3. Continue regular visitor surveys and analysis of user requirements to understand the potential impacts of users on the site and how to manage them to reduce damage to the site. Include surveys of peripheral car park users and capacities to identify if there is a different subset of visitors using these car parks as to those choosing to use Monument Drive.

9.37 *Medium term*:

1. Continue a regular programme of visitor surveys and analysis of user requirements to better understand the potential impacts of users on the site and how to better manage them;
2. Undertake improvements to, or relocation of, visitor facilities – see comments under Designed Landscape above;
3. Continue to improve the surfaced footpath network to encourage visitors to use a range of routes, reducing overcrowding of the main heritage core and adhere to the main paths to

reduce damage to the landscape and its ecology;

4. Continue visitor messaging to enhance understanding of the ecological/ historical/ archaeological value of the site;
5. Maintain messaging on the need for dog management.

9.38 *Long Term*:

1. Continue a regular programme of visitor surveys and analysis of user requirements to better understand the potential impacts of users on the site and how to better manage them;
2. Remove or considerably reduce and mitigate the visitor facilities and car parking from the environs of the Monument and Monument Drive if this is still outstanding from Medium Term aspirations.