

An ecological assessment of

Brede High Woods

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by Patrick Roper



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1.0 Introduction

- 1.1 In March 2008 Patrick Roper¹ of Patrick Roper Associates was commissioned by David Bonsall, the manager, to undertake an ecological assessment and report on Brede High Woods a 262 hectare (647 acre) area of woodland, with heaths, grassland and wetland in the parishes of Brede, Sedlescombe and Ewhurst Green, East Sussex acquired by the Woodland Trust from Southern Water in December 2007.
- 1.2 In April and May the author visited every one of the compartments in the complex and has compiled extensive notes and records to assist in the production of this report and future work. He has been familiar with the area since the late 1950s and produced, among other things, a management plan for the area in 2002 when it was owned by Southern Water as part of the catchment area for the Powdermill Reservoir. The author is also working with Steve Wheatley and the Rother Woods Project of which Brede High Woods is a key component
- 1.3 In the main eight-figure Ordnance Survey map references have been given as read from a GPS and then checked on a large scale map. However, transmission lines are known to distort some GPS readings and it is often difficult to get a good signal beneath trees, especially in the deeper valleys. Some references may therefore be less accurate than they appear.

2.0 Geology

- 2.1 There are three main strata that reach the surface in Brede High Woods²: Ashdown Beds, Wadhurst Clay and Tunbridge Wells Sand. The Ashdown Beds and Tunbridge Wells Sand give rise mainly to acid, sandy soils but they do have belts of clay running through them that can impede drainage and allow wetter conditions. Wadhurst Clay, in addition to creating a heavier soil, often with slumping, is much less acid and often supports plants normally associated with quite strongly calcareous conditions.
- 2.2 The clay woods lie mainly on the eastern side of the site and include much of Pond Wood as well as part of Cpts 7a and 7b towards the north east of the area. There is also an intrusion of this stratum across the southern part of Thorp's Wood (Cpt 1b) on the west of the site. That continues a short distance into 2e.

¹ For details of qualifications and experience see end of this report.

² The term 'Brede High Woods' is used in this report to describe the whole of the area owned by The Woodland Trust, whereas 'Brede High Wood' refers to the old name long used for the continuous ancient woodland now included mainly in Compartments 5b, 5d and 5f. For many years local people have tended to refer to all the former Southern Water land around the reservoir as Brede High Wood or Brede High Woods.

- 2.3 The Tunbridge Wells Sand is restricted to the far east of the site in part of the former Meadowlands Farm. It includes much of the southern half of Cpt 8c. The detached wood north of Great Sanders (Cpt 11a) is also largely on this formation.
- 2.4 The rest of the site largely overlies Ashdown Beds, a sandstone formation, but the eastern end of 6c in the Brede Green area alongside the B2089 has a substantial area of Sand in Wadhurst Clay.
- 2.5 The sunken lane south of the old Brede High Farm runs from Ashdown Beds through Wadhurst Clay, Sand in Wadhurst Clay, Wadhurst Clay again before returning to Ashdown Beds.
- 2.6 There are several stream systems, all flowing down to the Powdermill Reservoir and which tend to differ subtly in character (e.g. some have beds of *Sphagnum* moss, others do not). In places these streams can be classed as gills when they run through areas with sandrock exposures, stream bed cascades, waterfalls and boulders. Such gills are an important Wealden habitat, often retaining species now found mainly in the west and north of Britain where the climate is cooler and wetter.
- 2.7 Among the most precious of these streams are those that arise, often from springs, remotely from houses, cultivated fields or roads. These are obviously likely to have water of much better quality than those where pollution from run-off is more likely, and this can be of great benefit to aquatic wildlife.
- 2.8 There is also a number of ponds in various shapes, sizes and conditions and some marshy areas. These are considered under the sections dealing with the various compartments.

3.0 Archaeology

- 3.1 The Woodland Trust pointed out when they sent the brief that they were also in the process of drawing up a brief for the archaeological survey “which will include a time-line with various historic maps and other archive material. This will be compiled over several months and completed by mid summer 2009. The report will also be on a compartment by compartment basis so should complement the ecological report.”
- 3.2 In the light of this various notes have been made in the following text of features that might be of archaeological interest. These have been outlined in **yellow**.

4.0 Compartment definition

- 4.1 In their brief The Woodland Trust said that “amendments to compartments/subcompartments can be suggested where it is considered appropriate.” For the moment it is probably easiest to stick to the present structure, though it is often very strange. Some compartments are, for example, very large, others tiny. Some are fairly

regular, often following old field boundaries or streams, others wander about all over the places, sometimes completely encircling smaller compartments.³

- 4.2 Geology is clearly important in terms of ecology (and other things), but it is perhaps only practical to think of sandstone and clay areas, the latter lying mainly on the eastern part of the site.
- 4.3 Another useful way of dividing the area is in terms of their historic topography: Greenden & Streetfield; Austford; Brede High; Coneyburrow and Pond. Plus the two detached areas of Rafter's & Horns Wood and the wood north of Great Sanders.
- 4.4 Another way of looking at compartmentalisation is by habitat. Brede High Woods has woodland, fields, heaths, wetlands and rides. Some existing compartments contain a little of each of these and, without direct experience of the site, species lists can be very confusing. The flora from the rides and gateways, for example, gets included in the compartments to which they lie adjacent, or the ancient woodland flora from the relict shaws along stream-sides or old field boundaries with a compartment that is a fairly recent plantation (therefore giving the impression that it might be ancient woodland).

5.0 Nomenclature

- 5.1 Most places in Brede High Woods are difficult to discuss without a name and it is suggested that appropriate names are found, or coined, as soon as possible. Many of the old field names should be recoverable, for example. In the past the author has invented some like Holman Wood Field and Sedlescombe Heath and these seem to have been useful. He has also used the terms 'Austford Strait North and Austford Strait South' in this report to talk about the track from the saw mill (Cpt. 3c) to the old Austford Farm site. The word 'Strait' was chosen because of the similarity to Hargate Strait in The Woodland Trust's Hargate Forest near Tunbridge Wells.
- 5.2 I have also referred to Powdermill Stream, the largest stream in the area, which runs from a site close to Cripp's Corner to the western end of the reservoir.

6.0 Habitats

- 6.1 Part of the exceptional quality of Brede High Woods is due to the great variety of habitats. While woodland is clearly a very important dimension, the treed areas work in synergy with other habitats to support a very rich biodiversity. The area very much conforms with a

³ A 'compartment' (cpt) is permanent with physical boundaries. A 'subcompartment' (subcpt) can be temporary based on tree species/age, management regime etc.

definition of woodland used by some early writers: “a country with a mixture of pasture, woods, arable, and heaths.” (Thomas, 1983).

6.2 Among the many things that have struck the author of this paper is how much Brede High Wood differs from Flatropers Wood not far to the east and Hargate Forest and Broadwater Warren to the north, although all are on similar geological formations. In Broadwater Warren, for example, there are bird-sown rowans and alder buckthorns under almost every tree in the conifer plantations, but both these plants are relatively scarce in Brede High Woods, though they can and do grow. It is probably that many of these differences stem from past management regimes rather than any intrinsic natural factors associated with the sites.

6.3 The main habitats are briefly discussed below.

6.4 Woodland

6.4.1 The woodland in Brede High Woods is very mixed. There are some wonderful areas of ancient woodland, plantations of broadleaves and conifers, and areas that have been neglected and have regenerated tree cover of their own accord.

6.4.2 Many of the plantations have remnants of the pre-reservoir woods within and, in particular on wood banks, and along stream sides and the edges of old fields. These relict linear shaws are particularly important as they provide one of the means by which ancient woodland plants and associated animals can recolonise restored broadleaf woods.

6.4.3 Each wood in the area has an individual character, a flavour that is a kind of memory of its past history, though this history may not be precisely known. One of the aims of future management should be to try and reflect this past rather than attempt to return to it and it is considered that this is likely to be of the greatest benefit to wildlife.

6.4.4 Many of the woods have beds, often circular, of stinging nettles. This is often due to nitrification or the presence of phosphates from former agricultural or forestry practices, or it may represent sites where material has been burnt or charcoal made. Other woods are clearly the sites of earlier industrial activity such as iron mining or sand digging.

6.5 Heathland

6.5.1 There is much heathland in Brede High Woods, mostly in the western half of the area. This in itself is interesting as conditions in the east away from the clay soils often appear suitable, but have fewer heathland plants and no heather.

6.5.2 Where heathland restoration is contemplated, rides with an already strong heathy character should be chosen, preferably on warm, south facing slopes or well-drained ridges. Wet heath does not seem to be a feature of Brede High Woods.

6.5.3 The area immediately south of the B2089 from the west of 5d to the east of 5e has very poor, freely draining sandy soil where ericaceous plants such as *Calluna* and *Rhododendron ponticum* grow more vigorously than in most other parts of Brede High Woods. While this was mapped as part of Brede High Wood on the 1885 map, it is shown as a treeless area on the 1800 map. It is recommended that the objective here should be to create a very open heathy woodland with a park-like character and wide, sandy rides where heathland flora and fauna can flourish.

6.5.4 A map showing heathland or heathy areas (where *Calluna* is growing) has been drawn.

6.6 Rides

6.6.1 There are many rides and old roads or tracks throughout Brede High Woods. The narrowest are scarcely more than a minor break in tree cover, others are wider, but remain shady through much of the day; the best are broad open areas like linear fields. It is in the latter that many of the summer butterflies and other invertebrates are recorded.

6.6.2 Rides are an important complements to the woods alongside which they run and the best ride management practice should be applied. Many rides have a gateway area, usually where they meet a road and such areas can often be floristically diverse with bare ground species unlikely to be found deeper into the site. Care should be taken to ensure that conditions remain such that these ruderal species continue to flourish.

6.6.3 The transmission lines that run from 8e/8f northwards to 5i are a special habitat in their own right. They run through a wide range of habitats: grassland and scrub, woodland, marsh and heath. They are one of the best places in the complex for butterflies, day-flying moths and other invertebrates. This is mainly because they have been regularly coppiced back in order to minimise the possibility of vegetation coming into contact with the transmission lines leaving a wide, flowery corridor of varied structure. It is popular for the adult stages of flower-feeding invertebrates and should be investigated for the presence of dormice. No particular management strategy is required other than discussion with the people who do the scrub clearance for the power company to ensure that opportunities are maximised and threats diminished.

6.7 Wetlands

6.7.1 There are 6 main types of wetland in Brede High Woods: streams, permanent ponds, temporary ponds, deep wheel ruts, marshes and mires, seepages. The Powdermill Reservoir, although not WT property, clearly also has a major influence on wildlife throughout the area.

6.7.2 There is also much carr woodland with alder and birch and an important area of wet *Betula/Molinia* woodland (W4 in the National Vegetation Classification) in Cpt. 5a

- 6.7.3 The streams are mostly quite small and narrow and some are permanently flowing while others dry up in most summers. The permanently flowing streams have a particularly rich wildlife that deserves fuller investigation. In some places the streams form gills and there are swampy areas often filled with *Sphagnum* and some of the less common sedges.
- 6.7.4 All over the area there are seepages at the base of wood banks, alongside streams and in similar places. These are important for various vascular plants such as large bittercress (*Cardamine amara*) and a wide range of invertebrates whose early stages are confined to these habitats.
- 6.7.5 In general the Brede High Wood streams are best managed by retaining them in dappled shade (rather than deep shade) and removing any conifers growing by or near them. Coarse woody debris and fallen trunks should also be left in situ wherever possible.
- 6.7.6 The larger ponds, such as the one by the track running south west from Brede High Farm, will benefit from being kept reasonably open so that the marginal vegetation continues to flourish and species that appreciate more open waters (such as great crested newts) are provided with as good conditions as possible. The woodland ponds should continue in deep shade as they are home to various specialist invertebrates. They will, however, eventually silt up completely with fallen leaves and consideration should be given to creating further ponds as opportunity arises.
- 6.7.7 Temporary ponds support a different fauna from permanent ponds and should be conserved, though this will mostly mean leaving them alone. Consideration should be given to creating some new winter-wet scrapes in open areas such as the 5d/5e ridge and Holman Wood Field.
- 6.7.8 Deep, water-filled wheel ruts contain a wide number of interesting species in Brede High Woods and, wherever possible, should not be filled in or re-profiled by the passage of large vehicles.
- 6.7.9 The marshes and mires are very special and should be managed on a case by case basis whenever any local changes are planned. Seepages are usually associated with streams and will look after themselves.
- 6.7.10 A map of the wet woodland areas has been prepared.

7.0 Some conservation issues

- 7.1 Various suggestions for conservation and management techniques have been given in the sections devoted to the separate compartments (below). One very important possibility is that of grazing, an increasingly popular conservation strategy both in the High Weald and elsewhere.

- 7.2 In the past it is highly likely that domestic stock were run in the Brede High Woods woods and helped to create the kind of structure that we know from 19th century records tended to be much more species-rich than is the case today. There have been, of course, other factors adversely affecting wildlife over the years but well-managed woodland grazing does appear to be beneficial.
- 7.3 Open field areas and heathland would also benefit from grazing and, in the past, this would have reduced scrub encroachment. Again, if this is not practical, open areas will have to be regularly cut and the arisings removed.
- 7.4 In the case of Brede High Woods this issue needs to be approached cautiously. In the past grazing has not been allowed by the water companies (though horse riding has) and there are, of course, many deer and now wild boar in the woods as well as badgers, foxes and smaller species. However, if grazing is acceptable, it is a course that should be pursued in a carefully planned way.
- 7.5 Another past practice was controlled burning and it may be good practice to consider some controlled burns in areas that could benefit. It is said, for example, that dodder, one of the rarer plants of Brede High Woods, often appears in burnt areas.
- 7.6 Deer are an important factor too and, as things stand, will need to continue to be controlled by culling in order to allow natural regeneration of trees and other plants. Rabbits may also need to be controlled.
- 8.0 Flora and fauna**
- 8.1 The most characteristic ancient woodland indicators in Brede High Woods seem to be wood anemone (*Anemone nemorosa*) and pignut (*Conopodium majus*) as, in Brede High Woods, these seldom grow outside areas that have been mapped as woodland since at least 1800. The first of these grows in almost every wood shown on the 1800 OS map, but usually not elsewhere. And where it does grow it is usually abundant. Pignut is found rather more sparingly, and only in the richest and most varied areas.
- 8.2 Fifty-five ancient woodland indicator plants have so far been recorded in Brede High Woods, which highlights the area's quality and there are also, of course, many plants of heathland and marsh. Many of these are considered in the compartment descriptions below or in earlier material by the author as are issues relating to the fauna.
- 8.3 Hops grow at several places and may indicate places that were formerly hop gardens. They occur, for example, along the south eastern edge of Cpt 6d beside the track from Brede High Farm to the reservoir.
- 8.4 A map of badger activity has been prepared. This includes 21 main, or partially used, active setts.

8.5 In the course of the 2008 survey, many new records have been collected from each compartment and these are awaiting digitisation. They will represent a useful comparison and baseline for future survey work.

9.0 THE COMPARTMENTS

9.1 Compartment 1a (9.33 ha) Greenden Wood

9.1.1 This compartment, which is congruent with Greenden Wood as drawn on most maps, is a mixture of chestnut coppice and various broadleaves often, in places, with a strong ancient woodland character. It appears to have been continuously wooded from the cartographic evidence.

9.1.2 There is a number of small glades where patchy coppicing has been done and such features are worth conserving for the sake of additional diversity and the opportunities provided for species that like a combination of woodland and open ground at different stages of their lives.

9.1.3 In the centre of the compartment there is also a large area of dry alder coppice on a fairly flat site with a remarkable, virtually closed-canopy understorey of fern (TQ 7813 2065).

9.1.4 There is a grove of tall Scot's pines, probably shared with Compartment 2a, centred on TQ 7794 2083. This is an attractive landscape feature with an understorey of mainly bracken with some heathy species and invertebrates like green tiger beetles. It is recommended that this is left more or less as it is. The trees themselves are vulnerable to wind throw and, in a strong gale, could all come down. However, these pines do seed themselves to some extent and such seedlings should, perhaps, be left to grow on.

9.1.5 The stream and its tributaries that rises near Cripp's Corner forms a rather shallow gill sometimes running over small cascades of sandstone and with several waterfalls. There are small boulders and rocks on the stream bed in places and other stretches have a sandy bottom. There are steep banks, often topped with old hornbeam stools on much of the south western side and on the less steep north eastern side many small mires and seepages that are rich in wildlife and ecologically important. The area to the north east of the Cripp's Corner stream are the only places on the current OS 1:25,000 map where springs are marked (though springs occur in many other places). Many of the seepages and parts of the main stream are heavily coloured with iron.

9.1.6 Sphagnum moss, which is common along the Brede High Woods streams further east, does not seem to occur by Cripp's Corner stream or its tributaries, though conditions seem to be suitable. This may be due to the fact that the area lies closer to cultivated fields and orchards and/or pollutants seeping into the hydrological system from the road.

9.1.7 There is a curious man-made semi-circular bank in the wood on the edge of the neighbouring orchard at TQ 7791 2076.

9.1.8 Near the northern corner of 2d at TQ 78232 20624 is a large oak trunk, seemingly a timber tree that was felled and trimmed but not taken away. It is now a good wildlife habitat and should be left undisturbed in situ, partly for the sake of the wildlife and partly to see how long it takes such a massive piece of wood to decompose.

9.2 Compartment 1b (12.08 ha) Thorp's Wood

9.2.1 This compartment is a large, little visited wood at the western extremity of Brede High Woods. It is very varied and attractive with extensive areas of bluebells in spring and several ecologically important wetlands. The northern part of the wood is on Ashdown Beds, but the southern quarter overlies Wadhurst Clay, the only compartment in which this occurs on the western side of Brede High Woods. A small stream runs along the southern boundary of the compartment with open fields on the far side – not a gill, but with some interesting mossy sandstone boulders on the stream bed.

9.2.2 Much of the north eastern side of the compartment is bounded by the Cripp's Corner Stream, but there is a small section in the south that lies on the east of the stream. The section of Cripp's Corner Stream between the southern corner of Cpt. 2d and the south east corner of 1b is a good quality gill with cascades and sandrock exposures in the bank. It is of ecological importance and should be maintained in dappled shade. There is a yew tree on the bank where the streams meet – TQ 7841 2014 and badgers are also active in this area.

9.2.3 A narrow spur at the very western end is adjacent to the B2244, the Sedlescombe-Cripp's Corner Road. There is, however, a steep bank below the road itself and this makes this site impractical as an entry point to the woods. There is also one World War II concrete tank trap at TQ 7791 2044, the last one in the line across the fields from Sedlescombe Vineyard. As well as its historical significance, this has an interesting moss and lichen flora and is one of the very few 'buildings' in Brede High Woods. What appears to be a narrow sunken lane runs just inside the wood here.

9.2.4 The northernmost part of the wood has very wet alder carr and a small stream running through the spur that ends at the B2244.

9.2.5 The southern part of this compartment is mature coppice with standards, with pools of bluebells and other AWVPs⁴. There are many wind thrown trees here, perhaps also reflecting the underlying clay geology.

⁴ AWVP = Ancient Woodland Vascular Plant, i.e. an ancient woodland indicator species.

- 9.2.6 On the south western side of the compartment at TQ 7803 2029 and old forestry track enters the wood from the adjacent field and runs for some distance to the south east through an area of failed coppice (deer browsed) where there is an area of aspen suckers at TQ 7815 2027.
- 9.2.7 At TQ 7825 2032 there is a dry hollow that opens eastwards towards the Cripp's Corner Stream. There is a large badger sett on top of the bank here and further smaller holes along the bank above the stream to the north west. This part of the wood is more recently harvested chestnut coppice with some ecologically interesting glades and fine standard oaks and other trees such as holly and aspen. Deer are very active in this compartment, perhaps because it is rarely visited, especially by dog walkers and people may be uncertain about its ownership. A view should be taken as to whether increased access should be encouraged by the creation of paths and construction of one or more bridges across Cripp's Corner Stream.
- 9.2.8 Towards the north of this recently coppiced area there are several small wetlands of ecological importance, in particular an area of very wet alder carr around TQ 7805 2046 with a central bed of wood club-rush (*Scirpus sylvaticus*), the only place in Brede High Woods where this has so far been recorded.
- 9.2.9 The chestnut coppice north of this carr area has one of the finest displays of bluebells with a continuous carpet of flower in early May. Further north the woodland changes its character with mixed broadleaves and fewer bluebells. Dog's mercury (*Mercurialis perennis*) becomes a feature of the ground flora and in places there are many spikes of early purple orchid (*Orchis mascula*) and places where pignut (*Conopodium majus*) flourishes.
- 9.2.10 Adjacent to the southern corner of Cpt 2d at TQ 7830 2030 there is an area of wet alder carr with red currant and other wetland plants in the understorey. This is ecologically important and should, as far as possible, be retained in dappled shade. There is also much slumping of the bank of the Cripp's Corner stream here, probably due to the underlying Wadhurst Clay.
- 9.2.11 The northern part of this compartment is perhaps best managed as mixed broadleaved woodland with a varied structure – more or less as it is already. The southern coppice section could, if practical, be managed as coppice for timber, but access might now be a problem as the route across the fields is now in the ownership of Mr Vine-Hall.

9.3 Compartment 2a (9.81 ha)

- 9.3.1 This is the most northerly of the Brede High Woods compartments and runs alongside the A2089 for 500 metres from a point just east of Cripp's Corner to just beyond Beacon Lane. Opposite the county council's Cripp's Corner Depot there is a large lay-by adjacent to the compartment used, to some extent, as a parking and access point for the woods. In addition to the normal road bank plants and lay-by ruderals, there is a small colony of alexanders

(*Smyrniolus atrum*), a rather invasive alien that is spreading inland from the coast. It is not a problem here at present.

- 9.3.2 On older maps most of the area was divided into small fields but on the 1800 OS map a wide spur of Greenden Wood is shown as running north to the A2089.
- 9.3.3 Most of this compartment is largely birch scrub with a few unhealthy looking larches and other conifers, and a scatter of standard broadleaves. Along the most westerly section of the boundary bank above the A2089 is a row of planted hawthorns that show marked Midland hawthorn (*Crataegus laevigata*) attributes and are probably planted hybrids with common hawthorn (*Crataegus monogyna*). *C. laevigata* does grow here and there in the woods on the southern side of the reservoir, but I have not (yet) found any in the Woodland Trust areas.
- 9.3.4 The north/south division of this compartment running from TQ 7818 2092 to TQ 7817 2076 is bordered for much of its length by now rather straggly, tall gorse bushes (*Ulex europaeus*). This must have been quite an attractive feature in its heyday and is capable of restoration.
- 9.3.5 At TQ 7822 2074 there is a small grove of mature oak and beech with more beeches further to the west in 1a.
- 9.3.6 There is a small stream in the western half of the compartment that flows into compartment 1a and on into the main Cripp's Corner stream. This crosses the path at TQ 7819 2076. Though running through fields in the past, this stream has a good complement of ancient woodland indicator species and should be managed as part of the pre-reservoir environment with mixed tree cover along either side to provide dappled shade.
- 9.3.7 Towards the centre of the compartment the ground rises to a ridge that runs southwards into Greenden Wood (1a). In places there are the remnants of an east/west hedge that separated the fields in 2a from Greenden Wood (1a). Within the conifer plantation of 2a at this point there are some low, man-made mounds on the summit of the spur that do not appear to be associated with any earlier buildings. As they are situated on a high vantage point which, if clear of trees, would overlook the Brede Valley, they may deserve further investigation.
- 9.3.8 There is a fine grove of mature Scot's Pine shared with Compartment 1a around TQ780 209. This is covered in the account of 1a.

9.4 Compartment 2b

- 9.4.1 This is a compartment of mixed mature broadleaves: beech, ash, sweet chestnut, sycamore and birch with an understory of mainly of bramble and fern. In pre-reservoir days it was an open field and still mapped as such on the Ordnance Survey's 1 inch map of 1940. Although

it was probably not tree planted until after World War II, today it has a number of ancient woodland indicators.

- 9.4.2 Towards the west of the compartment there is less bramble and much more fern and ancient woodland indicators including broad-leaved helleborine orchid (*Epipactis helleborine*).
- 9.4.3 The ride on the western side that leads up to the B2089 has, rather surprisingly as the ground is not marshy, a colony of brooklime (*Samolus valerandi*), a plant I have not found elsewhere in Brede High Woods, or in the wider area. Some think this plant is the 'samolus' mentioned by Pliny:

The Druids also, use a certain marsh-plant that they call *samolus*, this must be gathered with the left hand, when fasting, and is a charm against the diseases of pigs and cattle. But the gatherer must not look behind him, nor lay the plant anywhere except in the drinking troughs

(*Idem Samolum herbam nominavere nascentem in humidis: et hanc sinistra manu legi a jejunis contra morbos suum boumque, nec respicere legentem: nec alibi quam in canali, deponere, ibique conterere poturis.*)

- 9.4.4 A subscriber to *Notes and Queries*, (Number 15, February 9, 1850) wrote:

From the very slight manner in which these plants are described by Pliny, it is next to impossible to identify them with any degree of certainty, though many attempts for the purpose have been made. So far as I know, Pliny is the only ancient author who mentions them, and we have therefore nothing to guide us beyond what he has said in this passage.

Samolus, or as some copies read *Samosum*, is said to be derived from two Celtic words, 'san', salutary, and 'mos', pig; denoting a property in the plant which answers to the description of.

Pliny, who says the Gauls considered the *Samolus* as a specific in all maladies of swine and cattle. But there is not less difficulty in identifying this plant than in the former case. Some have thought it the same as the little marsh plant, with small white flowers, which Linnaeus calls *Samolus valerandi*, while others consider it to be the *Anemone pulsatilla*. I am ignorant of the salutary properties of these plants, and must leave it to be decided which of them has the greatest claims to be considered the *Samolus* of Pliny.

- 9.4.5 As a formerly rather isolated field, it is probably not worth considering restoration to open ground and the aim of a varied, broadleaf structure is recommended so that, effectively, it becomes a new extension of Streetfield Wood.

9.5 **Compartment 2c (0.94 ha)**

- 9.5.1 A very small and rather attractive compartment of mixed broadleaves, mostly oak, on an earlier field (1800 and 1885 maps) that ran between Greenden and Streetfield Woods.
- 9.5.2 Other than removal of any conifers as opportunity occurs, this compartment is a good candidate for minimum intervention, perhaps with some long-term monitoring, though the ride between it and 3a could be widened for the benefit of wildlife.

9.6 **Compartment 2d (4.79 ha)**

- 9.6.1 This is currently largely a gloomy larch plantation with the main biodiversity interest confined to the edges where it adjoins rides. There are no, or few, bluebells and wood anemones or other AWVPs within the planted area.
- 9.6.2 In the past this was two open fields surrounded by woodland. Both fields were present from at least 1800 until planted with trees in the mid-20th century. There was a contiguous third field in 1800 that occupied part of the eastern area of what is now Greenden Wood. **The division between the two long-standing fields is marked by an unusually massive earth bank with a ditch of either side.** There are the remnants of an old, overshot hedge on top of the bank and small streams run down both the north western and south eastern borders of the compartment.

9.7 **Compartment 2e (5.61 ha)**

- 9.7.1 On the 1940 OS map 1 inch map and an earlier 1:25,000 OS map, this area is drawn as rough, open ground, but much of its is shown as wooded on the OS 1800 map. It is currently a mature, rather spacious Scot's pine plantation and, with higher light levels, *Calluna*, tormentil and other plants associated with heathland are starting to appear widely.
- 9.7.2 There are great beds of bracken and areas of brambles.
- 9.7.3 Towards the north there are some small marshy areas increasing the diversity of flora and fauna in the compartment. This marshy area could, with advantage be opened up somewhat and even deliberately extended. The footpath needs to have a minor diversion to allow walkers to circumnavigate the wetland.
- 9.7.4 There is also a stream in the ditch dividing this compartment from 2d and 1b with a rich woodland/streamside flora.
- 9.7.5 At the western corner of the site (TQ783203) there are some ancient coppiced hornbeam stools on an old woodbank and a small are of surviving broadleaf with accompanying AWVPs. **There is also a narrow, sunken footway, the line of an old ditch (N. Bannister, pers. comm., along part of the lip of the bank above the stream in TQ784201.**

9.7.6 This compartment is a good candidate to convert wholly, or partly, to heathland, perhaps trying to follow the pattern of the 1800 map.

9.8 Compartment 2f (2.5 ha)

9.8.1 A fairly small compartment lying immediately to the north of the old Austford Farm buildings. In pre-reservoir days it was an open field (1800 and 1885 maps) with a shaw or woodland belt running along the southern border adjacent to Cripp's Corner Stream. On the 1940 OS 1 inch map it is still shown as an open field. Essentially it has three different faces: the ancient woodland shaw by the stream; a relatively recent, dense conifer plantation and a central ride with a fairly diverse open ground vegetation. This ride continues northwards to the B2089 and is much used by local walkers. The vegetation in the area has been influenced to some extent by the former Austford Farm. The stinking iris (*Iris foetidissima*) by the path at TQ 7872 2012 may, for example, be an old garden escape as it has not been recorded anywhere else in Brede High Woods.

9.8.2 The shaw, mostly about 12 metres deep, alongside the stream is an attractive and precious area of probably ancient woodland (it is not marked on the OS 1800 map, but may have been too small) with many AWVPs. At its western end where the shaw broadens out there is a particularly fine single trunked maple which is worthy of getting privileged treatment in the years ahead.

9.8.3 The spruces and any other conifers should be removed as opportunity presents and the ride broadened substantially, or consideration be given to restoring the area as a small field with streamside shaws.

9.9 Compartment 2g (2.16 ha)

9.9.1 This is a relatively small compartment lying on the western side of Austford Strait South. In pre-reservoir days it was an open field and has roughly the same configuration on the 1800 OS map as it does today. It is also shown as treeless on the OS 1 inch map of 1940, so was probably not planted with conifers until after World War II. It is currently a mature Scot's pine plantation with a dense understorey, mainly of bramble but with many other plants in the gaps.

9.9.2 There is a rich flora, more characteristic of open ground along the Strait itself and some more woodland with an ancient character where the compartment approaches the stream on the west at its southern end.

9.9.3 The northern part of the area is seriously invaded with rhododendron and cherry laurel and the removal of these alien invasive species should be a priority.

9.9.4 Generally speaking it is a rather dull area ecologically and in other ways. In the future consideration might be given to restoring it as a field to complement the fields and heaths

the Woodland Trust hopes to recreate immediately to the east. Alternatively the conifers could be removed when the opportunity presents itself and the area converted to broadleaf. If this is done it is recommended that it should be open and spacious with a parkland feel about it to reflect its formerly open status.

9.10 Compartment 3a (17.31 ha)

- 9.10.1 A large compartment occupying much of the ancient Streetfield Wood mainly planted with Corsican pine but with many relict coppice and standard broadleaves. There is much invasion by self-sown birch and some chestnut coppice. Rhododendron is beginning to colonise, but is only a problems close to Austford Strait North (part of 3b). There is sycamore coppice at TQ 7840 2060 on the border with Cpt. 2c.
- 9.10.2 **Immediately to the west of Austford there was small field marked on many older maps, a kind of home paddock, maybe a garden.** The area concerned is still clearly visible on the ground as it is surrounded by an overshot hornbeam hedge. Consideration might be given to restoring this area as an open glade with the hedge (perhaps re-coppiced) as a reminder of the farm whose centre was here for many years.
- 9.10.3 An old ditch with a hedge on its northern side runs westward from the Austford field along the parish boundary to the northern corner of Cpt. 2g and the extension of this line drops down to the Streetfield Wood stream, the Red Stream.
- 9.10.4 The central stream, the Red Stream, fed by three main tributaries is a distinctive orange-red due to iron reducing bacteria that produce a rust-coloured precipitate, a phenomenon very common throughout the High Weald. At the Sedlescombe/Ewhurst Green parish boundary (TQ 7873 2045) it flows over two massive water-smoothed boulders, also rust red. There are small sandstone exposures both up- and downstream from this point making a small but quality gill and, north of the parish boundary on the eastern side of the stream, small areas of carr and wet woodland. Further north there are a few areas of sphagnum (though not, it seems, where the water is stained red by iron) including a bog at TQ 7879 2058. There is also a mire with some alder carr and sphagnum at TQ 7860 2030 where 3a, 2e and 2f meet.
- 9.10.5 Management of this compartment will vary from place to place as conditions dictate. Some of the coppice might be regularly harvested as it has been in the past, but the remainder should be returned to varied structure broadleaved woodland.

9.11 Compartment 3b (5.31 ha)

- 9.11.1 This is a flag-shaped compartment with the flag itself a squarish panel of ancient Streetfield Wood and the 'flag pole' a narrow strip of land along the road from the old sawmill site by the A2089 to Austford. A public footpath runs along the east of the flagpole close to the orchard and both of old road and the footpath are popular routes into Brede High Woods for local visitors.

- 9.11.2 These two sections of the compartment are very different in character. The flagpole is dominated a planted belt of *Rhododendron ponticum* along its length and this is undoubtedly the main source of the rhododendron that has been steadily invading many of the other compartments over the years. Despite its invasive nature it is appreciated by many local visitors to the woods, so caution should be exercised in the way in which it is dealt with. Ultimately though, it is desirable that the rhododendron eliminated and replaced by native broadleaves and/or a wider ride.
- 9.11.3 At the southern end of the flagpole a small stream crosses the footpath and proceeds downhill in 4a alongside Austford Strait South. There are some interesting plants in this area including *Calluna*. It is recommended that this is made into a larger glade/open area with a better means for walkers to cross the wet areas, partly to prevent unnecessary damage to the low growing vegetation here.
- 9.11.4 The ancient woodland is largely chestnut coppice with oak standards, but there are many other tree species. There is a rich ground flora of bluebells and wood anemones and the only currently recorded colony of common twayblade orchid (*Listera ovata*). There is a curious area at TQ 7879 2073 where all the coppice trees have died (or been killed) and the ground is thick with ferns, mainly hard fern.
- 9.11.5 The flagpole has a diverse flora with woodland plants along its eastern and western edges, many open ground plants along the Austford track (Austford Strait North) and also many ruderals brought in over the years, some of which such as the false oxlip (*Primula x polyantha*) have not been recorded from elsewhere in the woods. There is also, shared with Cpt. 3a, one of the current largest colonies of common spotted orchid (*Dactylorhiza fuchsii*) around the site of the old Austford buildings.
- 9.11.6 There are the upper reaches of several streams in the wood and the most westerly of these runs through a deep gill formation at TQ 7870 2077.
- 9.11.7 As with 3a, management of this compartment will vary from place to place as conditions dictate. Some of the coppice might be regularly harvested as it has been in the past, but the remainder should be returned to varied structure broadleaved woodland.

9.12 Compartment 3c (0.41)

- 9.12.1 This small compartment by the B2089 is the site of the wood yard and depot used prior to the purchase of Brede High Woods by the Woodland Trust. At the time of writing the yard has been tidied up but the corrugated iron sheds remain broadly in the centre of a parking/turning/timber storage area. There is also a small brick furnace on the eastern edge of the compartment adjacent to the neighbouring orchard. This was used for melting bitumen to tar the ends of fence posts (N. Bannister, pers. comm.).

9.12.2 The western side of the compartment is the northern end of Austford Strait North but the road passes after a short distance into Cpt. 3b. Beyond the track is the ancient woodland of Streetfield Wood, also in Cpt 3b.

9.12.3 Although small, this compartment has a very rich and varied flora including many ruderals brought into the depot from the surrounding countryside and woodland or grassland species that have encroached from the neighbouring woodlands and orchard. One of the ruderals recorded here in the past, and probably still present, was the attractive blue flowered form of the scarlet pimpernel (*Anagallis arvensis*)

9.12.4 Future management of this compartment very much depends on how the Woodland Trust proposes to use it but, if care is taken, it can continue to make a useful contribution towards local biodiversity.

9.13 Compartment 4a (2.61)

9.13.1 This compartment, lying on the eastern side of Austford Strait South, was a field in pre-reservoir days and had been so since at least 1800. It is still shown as treeless on the 1940 OS map. It was planted with larch in the mid to late 20th century and there is some Norway spruce and Scot's pine at the northern end and by Austford Strait.

9.13.2 There is a small patch in the south west corner of the compartment marked as wooded on many maps (e.g. the OS 1940 1 inch). There are many hills and hollows in this area and it is recommended that this remains as woodland.

9.13.3 Beneath the larches the compartment has a strongly heathy character and there is much gorse (*Ulex europaeus*), dwarf gorse (*Ulex minor*) and broom (*Cytisus scoparius*). There is also a more or less continuous grass sward, presumably able to develop because of the deciduous and gappy nature of the larches.

9.13.4 This is an ecologically important area if it can be managed as open ground with patches of scrub and occasional individual or small groves of broad leaved trees. The development of dwarf gorse should, in particular, be encouraged. The compartment is complementary to the ecologically remarkable southern area of 4b and extending the open ground will give the important heathland flora and fauna a better chance to expand into new territory.

9.13.5 The Woodland Trust is aiming to clear the conifers and some of the broadleaves from this compartment and manage it as open gorse land (known as 'hoth' in Sussex dialect).

9.14 Compartment 4b (4.3 ha)

9.14.1 This compartment, a short distance to the east of Austford, was an open field in pre-reservoir days and still shown as open on maps up to 1940, so was probably not planted until after World War II. It is currently a rather open conifer plantation much invaded with

birch and with other broad leaved trees, mostly coppiced, surviving from the pre-plantation period.

- 9.14.2 There is a stream with some seepages on the eastern boundary and wet patches here and there within the plantation, but nothing that could really be described as wet woodland. The soil does, however, seem rather poorly drained and pools of water, useful microhabitats, often form under the root plates of windthrown trees (which is not the case in many places in Brede High Woods).
- 9.14.3 The small area at the southern end of this compartment has a plantation of young oaks in very straight rows. This was one of the most interesting places for heathland flora a quality that is gradually diminishing as the oaks shade out the ground. As well as *Calluna*, bell heather (*Erica cinerea*) and dwarf gorse (*Ulex minor*) there were strong colonies of greater broomrape (*Orobanche rapum-genistae*), heath dog-violet (*Viola canina*) and dodder (*Cuscuta epithimum*) all rare and declining plants in East Sussex and nationally. The area was also popular with adders (*Vipera berus*) and some of our scarcer butterflies such as the green hairstreak (*Callophrys rubi*).
- 9.14.4 The Woodland Trust is aiming to clear the conifers and birch from this compartment and restore it to an open field retaining small groves and individual broad leaved trees. In addition to enhancing the diversity of the area, this will be useful in assessing the way in which wetter areas develop in more open conditions. In the past many of the wet woodlands in Brede High Woods must have been in fairly open situations, either temporarily or permanently and this would have allowed the development of a rather different flora and fauna from that which would have been found in shade.
- 9.14.5 Ideally the small, etiolated oaks should also be removed from the ecologically important southern section that clearly had a fully developed heathland character and was a small remnant of what much of the Sussex countryside would have been like in years past. The oaks have also been planted very close together, so it is difficult to understand what the future intention of the previous foresters was. They also diminish rather than enhance the landscape because of the unnatural appearance of the rows. The production of a few dozen oak poles on a small area that is not ancient woodland seems a poor exchange for some of the rarest heathland flora in the county.

9.15 Compartment 4c (0.76 ha)

- 9.15.1 A small compartment south of the neighbouring orchard. It was shown as open field on 1800 and 1885 OS maps and as an orchard on maps until 1940, so it was probably not cleared and planted with conifers until after World War II. Today it is an almost impenetrable plantation of Norway spruce with very little ground flora in the interior.

9.15.2 There is some floral variety along the edge of the ride bordering the south of the wood and along the small stream to the east. A steep bank and ditch separates it from the orchard to the north.

9.15.3 The Woodland Trust is aiming to clear the conifers from this compartment and restore it to an open field retaining small groves and individual broad leaved trees.

9.16 Compartment 4d (1.37 ha)

9.16.1 Another small compartment south of Cpt 4c and like it it was shown as open field on 1800 and 1885 OS maps and as an orchard on maps until 1940, so, like Cpt. 4c, it was probably not cleared and planted with conifers until after World War II. More recently it was planted with spruce which was clear-felled in the early part of this century. And it is now a rushy pasture grazed by deer and rabbits with beds of bracken, brambles and other vegetation.

9.16.2 There is a small stream running through the valley dividing Compartment 4d from 4b. It dries up in most summers but, over the centuries, has cut a fairly deep bed. It has a number of small waterfalls over tree roots, fallen timber or coarse woody debris and there are seepages along the bank, some stained red with iron. The banks of this stream, as is the case with many of the streams in Brede High Woods, are rich in flowering plants, ferns, mosses and liverworts and have narrow shaws of mixed broad-leaved trees and shrubs on either side surviving from the earlier landscape.

9.16.3 The Woodland Trust is aiming to keep this compartment as an open field retaining small groves and individual broad leaved trees.

9.17 Compartment 4e (2.9 ha)

9.17.1 A diamond shaped compartment on the south east side of former Austford Farm. It was mapped as open ground in 1800 and 1885 and as an orchard in the early 20th century until 1940, all by the Ordnance Survey.

9.17.2 The compartment has some special significance as it is a major element in the view as one walks down the footpath from Hurst Lane to the south.

9.17.3 It is largely planted with spruce, but has a fairly wide broadleaved periphery rich in woodland plants, especially along the south eastern, north eastern and part of the north western side where it is bordered by streams. There are one or two old, rather narrow rides leading into the interior where the woodland flora continues to grow between blocks of Sitka spruce.

9.17.4 On the south western side there are some plum or bullace trees in the broadleaved belt that may be relicts of the former orchard. There are also some fine maple trees, particularly at

TQ 7891 2004 and a willow, probably crack willow, nearby (one of only two locations where this species has so far been recorded in Brede High Woods).

- 9.17.5 On the south east border of the compartment there is a stream that flows from a shaw that runs down the cultivated fields of the Hurst House Estate⁵. This has some gill-like structures including steep banks and sandstone boulders in the stream bed. The latter support colonies of river feather-moss (*Brachythecium rivulare*) and the water appears relatively clean, but may be affected by chemical run off from the cultivated fields to the south.
- 9.17.6 Where this stream along the south eastern border joins the Cripp's Corner Stream that runs along the north western border, there is a small area of coppiced hazel and a shelf of bare mud. As the footpath passes close to this point on the other side of the stream, it might be a good option to maintain the hazel as coppice (removing the small pine tree). The bare mud is also an interesting habitat particularly for specialist invertebrates and much bare mud around reservoirs, lakes and ponds has been damaged as a habitat by growth of the alien New Zealand pigmy-weed (*Crassula helmsii*).
- 9.17.7 The bank of the Cripp's Corner Stream is just as rich in AWVPs and other plants as the northern bank in Cpt. 4f and should be carefully conserved to protect and enhance its ancient woodland quality. A priority here is to remove the pine trees that are casting deep shade over parts of the area and, no doubt, affecting the nature of the soil. Eventually all the conifers in this compartment should be removed in favour of mixed broadleaves and consideration be given as to how the public can best access this little-walked area.

9.18 Compartment 4f (8.97 ha)

- 9.18.1 This long and rather narrow compartment was mapped as treeless on all maps seen until 1940 and shown on some as rough pasture which, judging from current vegetation, would have been very heathy in character. Most of the eastern three quarters is currently tall quite widely spaced Scot's pine, probably not planted until after World War II, with an understorey of dense bramble and fern. In places there are more open areas and *Calluna* and dwarf gorse (*Ulex minor*) grows here and there, mainly beside the central east/west ride.
- 9.18.2 The site is crossed, or bounded, by three streams: one running along the eastern boundary next to Holman Wood Field (4g); one along the southern boundary (the final stretch of Cripp's Corner Stream before it enters the reservoir) and the stream that flows down between cpts 4d, 5a and 4b to cross 4f before joining the Cripp's Corner stream. The first

⁵ These shaws across the cultivated land to the south of Brede High Wood give some idea of what the open fields of the Woodland Trust area might have looked like in pre-reservoir days. Many shaws appear to have survived along the streams within Brede High Woods and are good quality ancient woodland that also helps to protect the wildlife within the streams.

two of these are heavily overshadowed by conifers and other trees but still retain some sphagnum. They could be improved by managing for a more open mixed broadleaf structure.

- 9.18.3 Along the eastern half of the southern border adjacent to the large feeder stream to the reservoir is a flat area of marshy wetland now scrubbed over with mainly self-sown alder and birch. There is a crack willow tree growing beside the stream, one of only two, so far as I know, in the whole of the Woodland Trust area and ramsons or wild garlic (*Allium ursinum*) also grows beside the stream.
- 9.18.4 There is a large badger sett on the southern side of the stream in Mr Vine-Hall's woodland and the animals cross to 4f over fallen tree trunks that bridge the stream and these should be left in situ.
- 9.18.5 The western section of the compartment beyond the dividing stream is of more closely spaced conifer, with small glades cut into it here and there .
- 9.18.6 At the very western end of the compartment there is one plant of hard shield-fern (*Polystichum aculeatum*) beside the public footpath, one of two sites where it has so far been recorded in Brede High Woods. Broad-leaved helleborine (*Epipactis helleborine*) also grows here. This stream bank, shared with Cpts 4e and 2f is a classic narrow fragment of ancient broadleaved semi-natural woodland that should be conserved with varied structure and the current impressive species mix. The public footpath from Austford Farm eastwards runs through this area and is thus readily appreciated and enjoyed by walkers. It could, with advantage, be extended by removal of some of the conifers to the north of the path in favour of broadleaved trees.
- 9.18.7 The compartment has some interesting small habitats away from the streams created in deep ruts made by heavy forestry equipment. They have an interesting wetland flora as well, no doubt, as an interesting invertebrate fauna. They should be retained and could with advantage be extended and turned into shallow, summer-drying pools.
- 9.18.8 There are also some excellent seepages and boggy areas, some coloured orange brown with iron, close to the point on the southern boundary of this compartment where the public footpath crosses into Mr Vine-Hall's woods.

9.19 Compartment 4g (1.04 ha) Holman Wood Field

- 9.19.1 This is a small but very special field at the heart of Brede High Woods. Currently only half is owned by the Woodland Trust as the remainder has been retained by Southern Water. It would be of great benefit to the field as a whole if a management agreement could be reached with Southern Water in order to secure a consistent management policy. On older maps it is shown as open field, but there may have been a period between 1940 and 1990, probably after World War II, when it was planted with trees. It was certainly open grassland

in 1990 but then partly scrubbed over with birch until cleared again in the early part of this century. It has remained as open acid grassland and heath ever since.

9.19.2 More detail is given in Roper (2003).

9.19.3 It is of great importance ecologically that this field is maintained as open ground, though the two standard oaks can, of course, remain and will be an enhancement for biodiversity. *Calluna* is currently increasing as, to a lesser extent, are dwarf gorse (*Ulex minor*) and heath dog violet (*Viola canina*) and, if this continues, the area will become heathland rather than acid grassland. One way of slowing the advance of heather would be to introduce conservation grazing.

9.19.4 By the central path towards the western end of the field is an artificial mound (perhaps made of piled up tree roots). This has a flora that differs from the remainder of the area (e.g. primroses flourish on it) and should be retained, but kept tree free.

9.19.5 There are also some small temporary pools and marshy areas in the open area of the field and these should be retained. Consideration might also be given to creating a larger, summer-drying scrape.

9.19.6 There has been some encroachment on to the open ground around the edges of the field and it is important that this is kept under control. It is recommended that the scrub and conifer on the western side is removed or drastically reduced to enhance interchange of species with Cpt. 4f and it has been recommended in the section dealing with 5b that the 'sandpit' excavation area on the north west of the site is opened up. There is also too dense a screen of birch along the northern border which is suppressing the heather here and inhibiting interchange with the woodland to the north. Indeed, the whole of this northern border plus the area around the stream bridge on the east of the field with its varied small habitats (including the temporary pool in 5b) and sheltered, south facing aspect is a site that is already known to have significant biodiversity should be given management priority in order to retain its warm, open character and to maintain and enhance its quality.

9.20 Compartment 5a (3.61 ha)

9.20.1 This features on most maps as a western extension of Holman Wood. It is bordered on the western side by the small stream described under 4d above. Close to this stream, to the north of the site, there is a row of mature oak trees with a bluebell understory that may have survived from pre-reservoir days, though the purpose of the row is unclear. There is also an interrupted belt of bluebells along much of the northern boundary of the site.

9.20.2 The rest of the western side is Norway spruce plantation with many trees failing or windthrown and a considerable amount of birch invasion. The area is poorly drained with wet patches and a little old hornbeam coppice.

9.20.3 In 2002/3 some alder buckthorn (*Frangula alnus*) coppice was found in this compartment and needs to be relocated to secure its conservation. This was an important species for the armaments industry as the charcoal was used in the manufacture of fuses and there may be a link between the alder buckthorn coppice and the powder mill at Brede Furnace.

9.20.4 There is a fairly deep north/south ditch at TQ 7922 2034, after which the area is ecologically important wet *Betula-Molinia* woodland (W4 in the National Vegetation Classification), a habitat more characteristic of northern Britain. As with all wet woodland, this is a priority habitat and very unusual in this part of the South East. It should be managed as light birch woodland over the *Molinia* and *Sphagnum* tussocks and conifers should be removed. Care should be taken not to improve the drainage as the area needs to remain wet in order to retain its character. A common lizard (*Zootoca vivipara*) was noted here in 2008 and this could be a good area for reptiles generally.

9.21 Compartment 5b

9.21.1 This is a large compartment 1.4km at its longest and entirely on Ashdown Beds except for small area with some clays and sands in the south east corner (Four Square Wood). Roughly the western third appears to lie, from the various maps, in Holman Wood, while the remainder is part of Brede High Wood, though the boundary between these two is not always clear and Holman Wood may have been part of Brede High Wood. Almost all of the area is shown as wooded on the OS map of 1800. Brede High Wood is named on the OS 1885 map, but not Holman Wood.

9.21.2 It has generally been retained as a broadleaf compartment, though there are some conifers, whereas the remainder of Brede High Wood in Compartment 5f has been extensively coniferised. This is very clear from aerial photos. There is an old wild cherry at TQ 8002 2020 that is partly fallen but still alive. Consideration might be given to planting a new one to replace it when it eventually dies, perhaps grown from one of its fruits, as this tree is not at all common in Brede High Woods.

9.21.3 As with the other large compartments there is a great diversity of terrain with wetter and drier areas as well as two stream systems, an eastern and a western, flowing into the Powdermill Reservoir at separate points. The western stream of the eastern catchment has an area of sphagnum mire at TQ 7990 2025.

9.21.4 Much of the broadleaved woodland is very fine (for example, around the stream running close to the border of Cpt. 5f) with mixed broadleaves of a variety of ages presenting the appearance of a very natural, uncommercial woodland. At TQ 7988 2019 there is an extensive area of aspen suckers with four taller trees among them. This is an important wildlife asset. Just south of the border with 5f at TQ 79883 20297 is a coppiced alder buckthorn (*Frangula alnus*). There may be others in the area and they should be haloed to allow them to develop better and set a larger crop of fruit. More of this species in the

woods will encourage its specialist invertebrates such as the brimstone butterfly (*Gonepteryx rhamni*).

- 9.21.5 The most northerly section of the compartment, where it runs up to Compartment 5d, has some fine single-trunked hornbeams (shared with 5c) that are well worth special care.
- 9.21.6 On the north eastern side of Holman Wood Field (Cpt. 4g) there is an area where some extractive activity has taken place, possibly digging for sand. This is currently planted with Norway spruce and invaded by birch scrub, but if restored as an open part of Holman Wood Field it would be of much greater value to biodiversity.
- 9.21.7 At the junction of 5a, 4f and 4g, but still in Cpt. 5b, is a temporary pool that could benefit from being more open on its southern side. This would involve removal of trees and scrub largely in 4f and 4g. There is a long strip of *Calluna* along the boundary with 4g and this would also benefit from additional insolation.
- 9.21.8 Along the southern boundary the woodland is mainly hornbeam coppice with oak standards and there are some pools here and one larger pond just over the Southern Water boundary. This part of the compartment has many bramble-filled clearings.
- 9.21.9 To the south east of Bonsall's Bridge the land rises sharply to the ancient Four Square Wood (a modern name coined because the wood lies in part of four 10 kilometre grid squares). This is an impressive mixture of broadleaved standards and coppice with many AWVPs and many marshy hollows where former extractive work has taken place. In this section there are at least two crab apple trees, one ancient and bordering the lane alongside 6d, another on the south east side of the stream also bordering 6d.
- 9.21.10 The boundary with Southern Water's land runs along the lip of the clay cliff created when material was removed from here to build the reservoir dam in the early 1930s. The area between the old track bordering Four Square Wood and the lip of the cliff was once part of a field and could, with benefit for wildlife, be opened up again. It is currently covered with secondary, self-generated woodland and, rather unusually, two wild service trees (*Sorbus torminalis*) grow here. They have generated seedlings below the cliff in Southern Water's area, one of the rather few examples of wild service reproducing successfully from seed - the tree normally regenerates from suckers (Roper, 1993).
- 9.21.11 The far south east of 5b, where it joins 6h, includes the western bank of the sunken lane that connected Brede High Farm with the powder mill on the western side of the reservoir. The steep shaded bank, which cuts through various sand and clay strata, is of value to particular kinds of wildlife such as mosses and liverworts that like these deeply shaded, well-drained conditions and it is recommended that, other than making it safe for walkers, a minimum intervention policy should prevail. There is a badger sett on top of the bank on the western side of the lane and, near the top of the lane, some wild cherry trees (*Prunus avium*).

- 9.21.12 One rather puzzling phenomenon is that some areas of the ancient woodlands are carpeted with bluebells, wood anemones and other AWVPs, whereas others (although the underlying geology and hydrology remain the same) are not and consist largely of vegetation-free dead leaves, or fern, wood sage and grasses. These discontinuities, often divided by a stream, imply that different areas have been treated in different ways in the past. It could be, for example, that pigs were run in some areas of the woods, but not in others. Usually the bluebells and other ground flora are beginning to recolonise the bare areas showing that they are quite capable of growing there.
- 9.21.13 There is a rutted wetland just south of the orchard (TQ 792 205) and some coppiced alder wood to the north of this. There are many boggy seepages here making it difficult for walkers to negotiate, especially in winter and a 'dry' path might be established as this is a key section of an attractive circular route around this part of the woods. Just to the south is a small area of heath at TQ 7924 2052.
- 9.21.14 There are also some ecologically important mires roughly where the 20600 east/west gridline crosses the streams running from north to south. The best of these, along the stream bordering 5f is an extensive sphagnum mire running approximately 100 metres from TQ 7952 2064 in the south to TQ 7950 2074 in the north. In addition to the sphagnum moss there is a wide range of ferns and sedges and, as well as birch and alder, there is some old alder buckthorn. Britain's largest lacewing (*Osmylus fulvicephalus*) was noted here in May 2008 and is one of the many invertebrates that will be breeding in these wetlands. Great care should be given in the management of these mire areas and the maintenance of dappled shade is recommended plus the removal of any conifers (generally there are rather few) growing close to them.
- 9.21.15 At TQ 7941 2041 where the track crosses the stream, a small pool has formed on the upstream section and downstream there is a cascade. This feature should be maintained more or less as it is at present. This stream rises at a spring-fed pool at TQ 7931 2057.
- 9.21.16 The southern and eastern part of the compartment has a wide open area with oak standards running from Bonsall's Bridge westward to Holman Wood Field. This was coppiced back about three years ago following discussions with Natural England (Patrick McKernan), Butterfly Conservation (Dan Hoare) and the author of this report with the aim of improving connectivity between the eastern and the western parts of the area.
- 9.21.17 Although the whole of this area has been woodland since at least 1800, the ancient woodland indicator plants are very patchily distributed. There are, for example, wood anemones, bluebells, primroses, pignut and other species in the area near Bonsall's Bridge, but a short distance further west such plants are scarce or absent. Heather (*Calluna*) is starting to appear towards the Holman Wood Field area and it is probably that much of Brede High Wood was very open and heathy.

9.21.18 Immediately to the east of Holman Field Bridge is a steep, south-facing, man-made, open bank (TQ 7951 2023). This is currently covered in moss, heather (*Calluna*) and a small amount of stunted coppice. It should be left clear of tall vegetation and open as it makes an excellent small habitat beside a much visited cross-roads spot.

9.21.19 At approx TQ 7930 2046 there is a small raised mire on top of a mound, perhaps where soil and other material has been forced up by a spring⁶. At attractive, shaded area of wet woodland runs south and west from it and there is alder buckthorn here.

9.21.20 Many areas in the Compartment are carpeted with bluebells, often mixed with wood anemones, but in other areas these AW indicators are absent (though other plant species are usually present). The division between areas with a rich ground flora and those without is often marked by one of the streams with bluebells on one side but almost absent on the other except where they are starting to re-colonise. This does not seem to be caused by the underlying geology, or by the composition of the trees and shrubs, and may be due to some past management factor (e.g. if pigs were run in the woods).

9.21.21 Other than the specific recommendations made above, better parts of the area should be managed as broadleaf woodland with mixed structure and species. Conifers should be removed in favour of broadleaves and rhododendron should also be removed wherever it is found.

9.22 Compartment 5c (1.92 ha)

9.22.1 A small compartment by the B2089 congruent with an area that was a small field on the 1885 OS map and part of Brede High Wood on the 1800 OS map. It is bounded on the west by an orchard and on the east and south by the plantation conifers of Brede High Wood. It is an area of mature beech, ash, hornbeam and oak with a mainly bramble understory, perhaps best kept as mixed broadleaved woodland but with a more varied structure than at present. As a wood it will have a useful buffering effect in regard to any pollutants from the orchards to the west of the main road to the north.

9.22.2 At the southern end of the compartment there is an old wood bank, presumably dividing the former field from Brede High Wood. There are in this area a number of mature single-trunked hornbeams. These are well worth some special care as most hornbeam in the area has been hedged or coppiced.

9.22.3 The compartment has acquired (or retained) a useful diversity of wild plants since its pre-reservoir days and this should grow as time goes by.

⁶ This would seem to be a similar phenomenon to that of the mound springs in some of the desert areas of Australia.

9.23 Compartment 5d (1.6 ha)

- 9.23.1 A long, fairly narrow area running alongside the B2089 that is part of the ancient Brede High Wood (1800 and 1885 OS maps), though now planted with mature Scot's pine with an understorey of sweet chestnut. There is much serious invasion of rhododendron as there is all along this ridge.
- 9.23.2 In some areas there are banks of tall heather (*Calluna*) and it grows taller here than anywhere else in Brede High Woods. The light, acid soil all along this ridge clearly suits ericaceous plants and this with 5e are strong candidates for heathland restoration.
- 9.23.3 At the time of the compilation of this report, some the eastern part of this area had been recently clear felled and was being recolonised, largely by birch and rhododendron. At the end of this eastern section there is an old wood bank running southwards and retaining many of the pre-reservoir broadleaves with some ancient hollies of particular note.

9.24 Compartment 5e (0.99 ha)

- 9.24.1 This is also a long, narrow area running alongside the B2089 that is part of the Brede High Wood on the 1885 OS map but part of an open field on the 1800 map. It is currently fairly recently harvested sweet chestnut coppice much of which is failing to regenerate.
- 9.24.2 There is a rich flora with many characteristic heathland species as is the case with Cpt. 5d discussed above. The light, acid soil all along this ridge clearly suits ericaceous plants and this with 5d are strong candidates for heathland restoration.

9.25 Compartment 5f (21.24 ha)

- 9.25.1 This is another very large compartment and is a PAWS section of the old Brede High Wood in contrast to 5b which remains largely broadleaf. There are areas of Corsican pine and larch intermixed with invading trees or those surviving from pre-reservoir days as well as areas of broadleaf coppice. There is also much invasion by rhododendron, especially in the northern parts adjacent to Cpts. 5e and 5g.
- 9.25.2 In the southern part there is at least one ancient woodbank and, although the wood is dismal in its interior, there is a good selection of plant species including many ancient woodland indicators.
- 9.25.3 The compartment has less aquatic interest than many, but there is a small stream with patches of sphagnum that rises at a spring just south of Cpt. 5h at TQ 7990 2044. The spring pool is an important small habitat well away from any potential pollution and should be carefully maintained in dappled shade.

9.25.4 In accordance with Woodland Trust policy, the conifers should be removed as soon as it is possible or sensible to do so and the wood returned to mixed broadleaf with a varied, fairly open structure.

9.26 Compartment 5g (3.06 ha)

9.26.1 Part of Brede High Wood on the 1885 map, but a open field on the 1800 map, this compartment running south from the B2089, is currently dense young birch scrub with some planted conifers and a largely bracken understorey. There are some open areas, especially towards the south west corner.

9.26.2 On the 1940 Ordnance Survey 1 inch map a trig point is marked at TQ 7998 2078 (approximately) indicating that there was probably a good view from here south into the Brede Valley and north into the Tillingham Valley.

9.26.3 The north/south ride on the west of this compartment is bordered by a shorter area of scrub and this area would benefit if the ride was widened to at least 30 metres, preferably to the southern end of 5h. Because of its history, it is clearly a candidate for heathland restoration.

9.26.4 The ride bordering the eastern side also has a heathy character and there is a colony of sanicle (*Sanicula europaea*) around the gate opening on to the B2089. This plant used to be quite widespread in woodlands in the area but has declined almost to vanishing point during the last 50 years and this is the only site for it currently recorded on the Woodland Trust's part of Brede High Woods (there are two locations on Southern Water's part and it grows along the entrance road to Great Sanders). It is an ancient woodland indicator species.

9.27 Compartment 5h (2.71 ha)

9.27.1 This is one of the key heathland areas in the Brede High Woods complex and has re-developed its character since clear felling from conifer plantation c.2000. Historically it was part of the Brede High Wood complex in 1885 and an open field area in 1800. A decision will need to be taken as to whether it should return to closed canopy woodland, managed as a wooded heath (probably largely its pre-reservoir character), or maintained as relatively open heath. The second of these two options is perhaps preferable.

9.27.2 An important additional factor with 5h is that some of the best views of the countryside to the south are from the northern part of the compartment and this area could be kept as a wide, heathy glade to retain the view as well as contributing to east/west connectivity. The rides on the eastern and western side of this compartment should also be maintained at least 30 metres in width.

9.27.3 In addition to extensive areas of tall heather, there are large areas of broom that are very attractive when in flower in late spring and scarcer plants like allseed (*Radiola linoides*) which was recorded on 2002. Although this latter is listed as an ancient woodland indicator,

it is a small annual of “damp, bare, infertile, peaty or sandy ground in acid grasslands and heaths, by ponds, on tracks and in woodland rides. [It] suffered a considerable decline before 1930, largely due to the loss of lowland heaths or a lack of grazing and disturbance on them. These losses have continued in England.” It was, for example, “lost from 95% of a sample of sites in Dorset between 1935 and 1992 and remaining populations are very small.” (Byfield & Pearman, 1996).

9.27.4 On the eastern side of the compartment there is a north/south wood bank dividing it from the coppice of 6c.

9.28 Compartment 51 (6.16 ha)

9.28.1 This is an old chestnut coppice adjacent to the B2089 and running westwards under the transmission lines from the main Brede High Woods car park (Cpt. 5j). Part of the northern side drains northwards into the Tillingham Valley rather than the Brede Valley and is the only part of Brede High Woods to do this. The only view of this valley from the woods is where the transmission lines meet the road at TQ 8031 2066.

9.28.2 Deer have made a track through the hawthorn hedge on the bank here to cross the B2089 road. It might be worth suggested that a deer crossing sign is erected east and west of this point, though the animals do, of course, cross in all sorts of places.

9.28.3 In pre-reservoir days the compartment is shown as wooded on the Yeakell and Gardner map of 1783, open fields on the 1800 OS map, but wooded again on the 1885 OS map. There are a number of places where this occurs in the Weald and a possible explanation is that woodland was cleared for pasture or crops for a relatively short period around the time of the Napoleonic wars, but was returned to woodland either deliberately or through abandonment, once the war had receded and importation of food became more and more practical. Thomas (1983), for example, points out that between 1760 and 1835 private landowners in Britain are thought to have planted at least 50,000,000 trees. He adds that conifers, limes or chestnuts were often preferred to oaks because they grew more quickly. Bettey (2002), on the other hand, points out that much land was converted to arable during the Napoleonic Wars due to rapid population growth and the high price that could be obtained for arable crops.

9.28.4 The ground flora in the wood is rich with a very wide range of AWVPs so, on this evidence, one would not have expected this coppice to have spent a significant period in the 18th/19th century as open field.

9.28.5 There are several quite heavily shaded rides and paths in the wood and the main north/south one enters the wood from the south via a causeway over the ditch and through the bank that runs all along the south side of the compartment (indicating woodland

antiquity). Further north along this ride there is a row of mature hollies planted long ago as a hedge or ride-side feature.

9.28.6 About halfway up this central ride, a narrower one runs westward to 5h and along the western boundary of 5i there is another woodbank, this time running north to south. There is much *Calluna* and other heathland species growing along here.

9.28.7 At TQ 8001 2053 there are the foundations of an old cottage, demolished at the time the reservoir was built. There is still much privet (*Ligustrum vulgare*) here, a remnant of the cottage garden.

9.28.8 At TQ 8017 2071 a pink-flowered plant of columbine (*Aquilegia vulgaris*) was found well within the coppice and not close to any path or track and a patch of the alien slender speedwell (*Veronica filiformis*). The latter was not introduced to Britain until 1927, so it is unlikely to have been in 5i for all that long. These introduced plants have possibly arisen from garden rubbish deposited nearby, but if so they have managed to travel farther into the wood than one would expect. Alternatively there may have been some sort of human activity here (such as a caravan) in the not too far distant past.

9.28.9 On the eastern edge of the compartment the area under the transmission lines does, of course, have a different, open ground character due to the regular cutting back of the vegetation.

9.28.10 This is one of the best compartments in Brede High Woods to continue to manage as coppice and it would be beneficial to biodiversity to widen both the north/south and east west rides. The winding footpath that runs from the north/south ride back to the car park should, however, be left as it is.

9.29 Compartment 5j (0.85 ha)

9.29.1 A small compartment on the south of the B2089 that accommodates the main car park for the Brede High Woods complex. It is shown on the OS 1885 map as the most easterly spur of Brede High Wood but on the 1800 map as open field. It does however, have a large number of ancient woodland indicator plants and this may mean that, though cleared of trees, it and the adjacent 5i to the west, may have been turned into pasture, but not ploughed.

9.29.2 A steep bank runs from the road along the eastern side of the site, then along the southern side and this simply reflects the field/wood pattern as shown on the 1885 map. The bank on the eastern side is particularly rich in plant life with species like wood melick grass (*Melica uniflora*) which has not been recorded elsewhere within the woods (it does occur on some of the perimeter banks).

9.29.3 Future management of this site depends very much on how The Woodland Trust develops the car park (which is getting more popular). One possibility is to establish a small educational arboretum with examples of all the native trees and shrubs that grow in the woods.

9.30 Compartment 6a (2.18 ha)

9.30.1 This compartment is shown as an open field on the OS map published in 1885 and an orchard before World War II. It is currently a conifer plantation of Corsican pine with scattered ash, oak and birch standards. The ground layer tends to be dense and brambly, but now contains many woodland plants, though few ancient woodland indicator species.

9.30.2 The ground is damper and the vegetation more lush towards the southern side where there is a path that runs from the car park area to Bonsall's Bridge.

9.30.3 There is a wood bank and ditch along the border with 6d on the south west side and an open, bracken covered glade at TQ 8013 2036.

9.30.4 Perhaps the best strategy for this wood is gradually to remove the conifer in favour of broadleaved trees, aiming to create a varied and fairly spacious structure. The path from the car park area to Bonsall's Bridge is a particularly attractive one. It is, effectively, a circumnavigation of Cpts. 6b and 6d and is one of the most attractive shorter walks from the car park.

9.31 Compartment 6b (2.73 ha)

9.31.1 A small compartment that was an orchard before World War II and open field on the 1800 and 1885 OS maps. Much of the area is now mature beech plantation with a wide open area where the transmission lines cross. This latter and the land in the north east corner of the apartment, when it was open ground in the 1990s, were among the best places for butterflies with species like pearl-bordered fritillary (*Boloria euphrosyne*) and dark green fritillary (*Argynnis aglaja*) occurring regularly. It remains a good area for silver-washed fritillary (*Argynnis paphia*), white admiral (*Limenitis camilla*) and dingy skipper (*Pyrgus malvae*).

9.31.2 The beech plantation west of the transmission lines is very orderly, with same age trees aligned in rows.

9.31.3 Two streams drain the area, running down into the stream along the north west side of 6d. Both these have the remnants of a pre-reservoir flora.

9.31.4 It would be of value if the scrub in the north east area could be cleared away and the bank underneath the pylon also cut back creating a south facing bank with earth exposures, a

habitat of importance to mason bees and similar invertebrates and increasingly scarce in the modern countryside.

9.31.5 On the south western side bordering 6d there is deep nettle-filled hollow which looks as though it may formerly have been a pond at Brede High Farm. It is possible that the outlet wall in this pond has been breached at some time or another to drain it and it might be possible to restore it. There is also some wild privet here (*Ligustrum vulgare*) indicating that it might once have been part of a garden.

9.31.6 Perhaps the best way of managing this compartment is by selective felling over a period of years to create a more spacious wood with a less formal structure. The streamside areas should also be allowed more light so that they can return to a condition similar to that in pre-reservoir days

9.31.7 A ride much used for walking runs along the northern side of the compartment and has some very deep wheel ruts that are excellent habitats for a range of flora and fauna. The larger ones should, if possible, be retained. There is an old hedge by the ditch between 6a and this compartment which is capable, if resources allow, of restoration as part of the historic landscape.

9.32 Compartment 6c (11.44 ha)

9.32.1 A long and rather narrow compartment running from the main car park eastwards to the northern stretch of Goatham Lane and parallel to the southern side of the B2089. There is also a south westward projection of the compartment at the car park end to the old Brede High Farm site.

9.32.2 The whole compartment is mapped as treeless from 1800 to 1940 and the current plantation was probably established after World War II. (Brede High Farm just outside this compartment was also still in situ on the OS 1940 1 inch map).

9.32.3 This compartment could be called Burnham Wood (as a homage to Shakespeare's Macbeth) since it runs along the summit of Burnham Down, the name for this part of the ridge between the Brede and Tillingham Valleys on older maps. This would help to keep the name in use. (The *Dictionary of English Place-names* says: BURNHAM, usually "homestead or village on a stream" and might refer to places near the spring streams immediately north of the main road.) However, there might be a re-findable old field name for this and many other compartments in Brede High Woods and these would be even more appropriate.

9.32.4 The Brede/Ewhurst Green parish boundary runs through the area but, despite careful searching, no manifestation of this could be found on the ground at the time of the survey visit.

9.32.5 The whole area is broadleaved woodland, ash, oak and beech, of similar age and close to maturity. The field layer is thick with brambles and it is often difficult to penetrate under

the trees but, where one can, there is only a rather poor ground flora in the bramble free areas. The flora along the track from the main road gate to Brede High Farm is very rich and, as is often the case in such situation, a mix of ruderals brought in, no doubt, by passing people, animals and vehicles over the years and ancient woodland indicator species that may have flourished there for centuries – plants like wood melick grass and polypody fern. There is a small even-aged beech plantation south of the transmission lines with an old bank and overshoot, pre-reservoir hedge of oak, holly, hazel, hawthorn etc. This could be restored.

- 9.32.6 The south eastward extension is richer in AWVP indicator species, but the whole area was mapped as free of woodland in 1800 and 6c consisted of four separate fields. Woodland plants no doubt survived on the steep banks of the lane from the main road to Brede High Farm as would some along the hedge lines. There is also some complexity of old hedge lines and wood banks close to the Brede High Farm. The bank under the transmission lines on the eastern side of the track is very warm and sunny and very good for invertebrates such as mining bees as well as plants. There is a badger sett in the bank here
- 9.32.7 The western half of the compartment is on Ashdown Beds, while the eastern half is Wadhurst Clay or Sand in Wadhurst Clay.
- 9.32.8 Much of the ecological interest along the west/east ride is from the deep, often water-filled ruts made by forestry vehicles where plants like water starwort, lesser spearwort and bog stitchwort flourish. Some of these may be permanently water-filled, but temporary pools have their own important ecological significance and they do, of course, provide drinking places for animals and birds.
- 9.32.9 The straightness of the ride does not encourage people to explore it and consideration might be given to making it more winding. If the compartment is managed as a broadleaf wood, a more varied structure would enhance it ecologically as would widening and scalloping the ride.
- 9.32.10 The area is the second highest above sea level (80 metres) in Brede High Woods (the first is in Greenden Wood to the west).
- 9.32.11 In the part of the wood bordering the road there is a mature tall bush of the alien Duke of Argyll's tea tree (*Lycium* sp.). The fruits of this species (harvested in Tibet) are sold in health food and other shops as 'goji berries'. This plant is not likely to cause a invasive problem and should be left in situ.
- 9.32.12 In general it is recommended that this compartment is managed as secondary broadleaved woodland with a more varied structure than at present. It would also benefit from the creation of some open glades.

9.33 Compartment 6d (5.28 ha)

- 9.33.1 A long, rather narrow compartment on the north western side of the track from the former Brede High Farm site to the reservoir. It was an open field in pre-reservoir days. The earlier conifers were flattened in the 1987 storm and the area cleared and replanted. Today (2008) it is a mixture of young conifers with more mature oaks and beeches. In many places there are warm, open, bracken-filled glades and at the south western end some hornbeam coppice with oak standards.
- 9.33.2 There is a small stream at the bottom of the slope that forms the north western boundary of the compartment. This rises at a spring at TQ 8014 2033 and the stream below this is heavily stained with iron. It is a magical spot beside a well-walked path and should be deconiferised and kept in dappled shade. Generally the water in the stream seems clear and unpolluted and it rises some way from the nearest road or agricultural land. It is bordered along much of its length by hemlock water dropwort (*Oenanthe crocata*) and consideration should be given to making sections of the stream where this plant grows more open and sunny. This would provide a useful reference as to what might happen if more light was let into some of the other streams in Brede High Woods.
- 9.33.3 This whole compartment could be managed with a more open, broadleaf structure, with large glades to re-create some of the previous open field character of the area. The present glades are sheltered and sunny for most of the day making them of particular value for wildlife that likes these conditions.
- 9.33.4 It is recommended that the area alongside track from Brede High Farm is cleared back into 6d for 20 or 30 metres allowing much more sunlight to reach the bank on the south east side of the track bordering Cpts 6e and 6g. This is, or was, a particularly good habitat for mining bees and other invertebrates that like warm, open conditions and replicates the situation that would have prevailed until post-reservoir afforestation.

9.34 Compartment 6e (2.48 ha)

- 9.34.1 A mixed plantation of various conifers plus beech, birch and other broadleaves on land formerly occupied by Brede High Farm and an open field to the east of it. **There are various lumps and bumps inside including a steep bank and a dry hollow immediately east of the site of the farm buildings.**
- 9.34.2 The compartment includes much of the Brede High Farm site and the ground flora includes many beds of stinging nettles, indicative of much former human activity. The area around the farm buildings is shown as treeless on the 1940 OS 1 inch map and includes a building on the north west side of the track which is where the dry hollow described in 6b is today.

9.34.3 The more open parts of this area were much liked by butterflies such as the pearl-bordered fritillary and grizzled skipper, but these species declined from the early 1990s and no longer seem to be present despite careful annual searches.

9.34.4 The transmission lines run across the eastern extension of this compartment.

9.34.5 The compartment is probably best managed as light, open woodland with conifers removed.

9.35 Compartment 6f (1.72 ha)

9.35.1 A small compartment to the west of the pond bay under the transmission lines. On pre-reservoir maps (1800 & 1885) it was a field lying to the south of Brede High Farm. Much of the centre is today scrubby, regenerated birch, but there are mature planted oaks, beech and other trees in an outer ring. There is a conifer plantation on part of the northern side. The ground flora is very mixed with much bramble and nettle.

9.35.2 The area is perhaps best managed by removing the conifers and allowing the broadleaves to grow on. The central area could be cleared of scrub and retained as an open glade.

9.35.3 One of the most used public footpaths runs along the northern side of this compartment and, once the conifers have gone will, in combination with 6e on the other side of the path, make an extremely attractive woodland walk.

9.36 Compartment 6g (7.28 ha)

9.36.1 A compartment with a very complicated shape that was mostly open field in pre-reservoir days. There is, however, an area of ancient woodland in the south eastern part around two small ponds and a similar, smaller area around the larger pond by the track from Brede High Farm. This larger pond has a strong colony of great crested newts (*Triturus cristatus*) and is popular with grass snakes (*Natrix natrix*). There is also a steep bank along the south eastern border of 6h which is shown on the 1885 OS map as a narrow shaw. This has several seepages below it.

9.36.2 Today much of the area is chestnut coppice with an understory of bluebell and/or fern in the northern part, whereas the southern part is a complex mixture of planted conifers and broadleaves some of which have been coppiced.

9.36.3 Although much of the compartment is mapped as open field in the past, there are many ancient woodland indicators present today including some of those less common in Brede High Woods such as three-nerved sandwort (*Moerhingia trinervia*) and hard shield-fern (*Polystichum aculeatum*).

9.36.4 The area round the two small ponds is shown as woodland on the 1885 map and has many ancient woodland characteristics. However, the land here is shown as open on the 1800 map. It is recommended that this part of the compartment is managed as mixed, open

broadleaf with the ponds being left in dappled shade. There is also a small marshy area to the east of the ponds which should be kept as the centre of a small open glade.

9.36.5 The eastern half of this compartment is a mixed broadleaf plantation with some conifers. The ground flora is sparse and the presence of old ant hills indicate its former state as an open field area.

9.36.6 The coppice might be retained and managed as coppice. The woodland areas round the ponds need to be selectively harvested of timber to produce a varied structure. The larger pond should have dappled shade while the two smaller ones could remain in rather deeper shade as examples of this particular woodland pond habitat. It could be, however, that they will eventually dry up and they currently do not retain water throughout the year whereas the larger one does.

9.37 Compartment 6h (1.54 ha)

9.37.1 This small compartment includes the eastern side of the sunken part of the track from Brede High Farm as it descends to the reservoir. Its underlying geology is a complex mixture of clays and sands. It was open ground in pre-reservoir days. Today it has groves of mature, dark *Tsuga* and an extensive, largely tree-free bracken bed.

9.37.2 Much of it is on a south facing slope and was favoured by butterflies such as grizzled skipper until it became too shady in the mid-1990s. It is recommended that the conifers are removed and some of this open character is restored, perhaps as wood pasture, though bracken control will be an issue.

9.38 Compartment 7a (24.22 ha)

9.38.1 This is a huge compartment seemingly roughly congruent with the old Coneyburrow Wood (there still are conies, rabbits). It does seem broadly to follow the wood shown on the 1800 OS map. With so many habitats, the flora is very varied. The transmission lines run across a long stretch of the compartment on the western side

9.38.2 Most of the compartment overlies the Ashdown Beds, but there is some Wadhurst Clay on the southern and the eastern sides.

9.38.3 In the central and eastern part of the compartment, broad swathes have been coppiced in recent years leaving tall ashes, oaks and other species as very open woodland of considerable attraction, though the structure could be more varied as the parkland-like quality is not entirely appropriate. Much of the old hornbeam seems to have survived coppicing well whereas in other parts of the wood it is being terminally nibbled by deer. Plenty of this compartment, however, remains uncoppiced.

- 9.38.4 There are many heathland plants throughout, but heather seems to be restricted to a small area to the east and south of the pond bay (TQ 8020).
- 9.38.5 **This pond bay (if that is what it is) is one of the most interesting habitats in Brede High Woods**, partly because it has been kept open since the middle of the last century by clearance under the transmission lines by successive power companies. The feature has been created by a raised causeway that dams a small stream that rises further north along the transmission lines. South of the dam is an extensive area of marshy alder carr that is very rich in wildlife and to the east of this is a now scrubbed over area of heathland. This latter should, if possible be opened up again.
- 9.38.6 Around TQ 807 201 there are small glades carpeted with bugle, primrose and yellow archangel – very attractive too – but without bluebells and wood anemones in any appreciable quantity. Green hellebore grows in this area of compartment and pignut and orpine, all good ancient woodland indicators are plentiful.
- 9.38.7 There are three main streams – east, central and west. There is some coppiced alder along the western stream.
- 9.38.8 **The eastern stream rises adjacent to Goatham Lane where it cascades down some quite elaborate brickwork** into a short, but rather deep and narrow gill. This stream then flows on between Cpts. 7b and 7c into a relatively deep valley north of 7d. The woods around the higher reaches of this stream are among the best, in terms of AWVPs, in the whole of Brede High Woods. This whole area is called Twist Wood on older maps.
- 9.38.9 The stream flowing south from the corner of Cpt 7b runs through mixed ancient woodland of mostly coppiced hornbeam with standard oaks and contains a length of swampy carr. Downstream of the mire the stream drops between narrow, fern-lined banks. There is a fine, tall aspen at TQ 80585 20106. Downstream again there is a small waterfall and the stream forms more of a gill structure.
- 9.38.10 **At TQ 8088 1990 there is a length of holly hedge on the very steep bank** (see also 7d). On older maps this area to the north west of the hedge is mapped as open field.
- 9.38.11 **At TQ 8072 1979 there is a quite large pond in a deep hollow on the Wadhurst Clay section of this compartment.** This seems to have gone unmapped by the Ordnance Survey or anyone else, though smaller ponds in the area are usually clearly shown. Apart from a fallen, but still alive, holly it is currently in an open situation and should be left like this. There is a major badger sett with several entrances here and the animals appear to have found some more friable soil than the clay into which to dig.
- 9.38.12 In TQ803200 there is an extension of the woods to the west of the transmission lines and pylon. It is a fine ancient woodland area of mainly hornbeam coppice with oak standards bounded on the east by the brook lamprey stream. This flows down from the marshy alder

carr below the pond bay (TQ 8043 2009). The management of this marsh needs special consideration, though it is regularly cut back to keep it clear of the transmission lines by the power company.

9.38.13 There is another small extension of 7a to the west at TQ 8039 2019. This a first class small area of damp ancient woodland with plants like pignut and orpine. Potentially, and maybe actually, a good dormouse site, with ample food supply including open scrub under the nearby transmission lines and cool, damp places to hibernate.

9.38.14 A narrow spur of chestnut coppice, formerly part of Twist Wood (Cpt 7c.) to the north runs between Cpt. 7d and Goatham Lane. The flora of the bank along the lane is rich in AWVPs with species like wood melick (*Melica uniflora*) and bitter vetch (*Lathyrus linifolius*) that are characteristic of these edges, but rarely found inside the woods themselves and, when they are, nearly always on vertical, well-lit sides of wood banks where there is dry, well-drained soil.

9.38.15 The bank on the eastern end of this compartment, alongside Goatham Lane, is equally rich in ancient woodland indicator species and the wood at this end could be made more open to encourage these species to colonise.

9.38.16 On the northern boundary of the compartment at TQ 8075 2039 where the underlying geology is Sand in Wadhurst Clay there is a large tree-filled pit, presumably where some extraction activity took place in the past. It is mapped as a pond on many maps, but if it holds water at all it is only on a very temporary basis and normally is dry. There are similar, smaller usually dry pits at TQ 8044 2026.

9.39 Compartment 7b (3.03 ha)

9.39.1 A former field from at least 1800 until 1940 (OS 1 inch map) and lying almost entirely within Coneyburrow Wood (Cpt. 7a). It is now planted with broadleaves – beech, ash, oak, sycamore. Much is on the flat, but it slopes quite steeply down towards the central stream in 7a on the west and is bordered in many places by wood banks.

9.39.2 The flora is quite rich, with both an open land and a woodland flora, the latter no doubt recruited over the years from surrounding woodland, though some may have survived the original assarting.

9.39.3 There are also some plants such as glaucous sedge (*Carex flacca*), field woodrush (*Luzula campestris*) and other species that may have survived from the period when the compartment was an open field.

9.39.4 It would probably be difficult to manage this field as open land in the future and it is suggested that it continues as broadleaf with a rather more varied structure that at present.

9.40 Compartment 7c (1.54 ha)

- 9.40.1 This occupies a steep, west facing bank on the western side of the hamlet of Goatham Green and is almost entirely on Ashdown Beds with a small area of Wadhurst Clay at the bank top. It is currently a plantation of mature larch with some fine standard oaks and smaller survivors of earlier coppice such as hornbeam and sweet chestnut.
- 9.40.2 It is mapped as woodland on the 1800 and 1878 OS maps and this is consistent with the ground flora which contains many AWVP indicators. It is all part of Twist Wood and the western boundary of the compartment is exactly congruent with a track shown on the 1878 OS map. Twist Wood then, however, continued a short way further to the west.
- 9.40.3 Because of its steep, west-facing situation of a free-draining sandy soil, this compartment is very favourable for reptiles, warmth-loving invertebrates and other fauna. It is recommended that the larch is removed whenever practical and the area managed as very open broadleaved woodland with a high proportion of insolation to the ground. Some low-level grazing might be considered if the brambles become too thick or the deer do not keep them down.

9.41 Compartment 7d (3.02 ha)

- 9.41.1 This was, in pre-reservoir days, largely an open field, though a small area on the south west side was part of the ancient Coneyburrow Wood and should be managed as such. It is in this area that, among other things, a colony of moschatel (*Adoxa moschatellina*), a good ancient woodland indicator, was found.
- 9.41.2 On the south eastern border there is a long stretch of quite high bank with the compartment 7d on the lower, north western side. There is the remnant of an old hedge along this bank including some mature hollies (almost certainly planted). Most of the biodiversity interest is, as is often the case in compartments of this kind, around the edges where it adjoins paths and rides.
- 9.41.3 Much of the interior of the wood is overshoot chestnut coppice plus some young Douglas fir and larch. Towards the north western border there is a fine group of very tall Scot's pines, a strong landscape feature for people looking east from compartment 7a. The whole area is criss-crossed by unused tracks made in the past, maybe by forestry operations but perhaps dating from the time when the compartment was an open field.
- 9.41.4 The best option is to manage the area as open broadleaf to complement the management suggestions for 7c. The Scot's pine grove should be retained but is vulnerable to wind throw and all the trees are the same age.

9.45 Compartment 8a (2.71 ha)

- 9.45.1 Another compartment, entirely on Wadhurst Clay and predominantly planted with conifers, with a very peculiar shape with, seemingly, little logic. Sometimes it seems that the mid-20th century foresters were deliberately trying to obscure the former landscape and they certainly were not following geology or topography here. It has an inexplicable dog-leg where it curves round the top of 8a like a high jumper going over the bar into a squarish area (mostly in TQ805198) to the east of the transmission lines. This square is mostly mature spruce as is the area along the north west facing bank above the reservoir spur.
- 9.45.2 Most of the compartment was open field in pre-reservoir days but several were bordered by narrow shaws (OS 1880) some of which may remain with their complement of AWVPs and could be restored.
- 9.45.3 The plot has a very neglected appearance with many large fallen trees and a generally dark and dismal feel. A narrow footpath winds its way among the trees.
- 9.45.6 The best management option is to remove the spruce and allow the area to develop naturally into a broadleaf woodland over clay.

9.46 Compartment 8b (3.87 ha)

- 9.46.1 A compartment of complicated shape lying mostly above Wadhurst Clay. The area is shown as mainly open field on pre-reservoir maps, but there are some shaws that could be identified as targets for special attention as they are probably fragments of ancient woodland.
- 9.46.2 Most of the plantation trees were windthrown in the 1987 storm leaving the area open for several years when it was much favoured by the pearl-bordered fritillary (*Boloria euphrosyne*). The most northerly part in TQ 804 198 is young planted ash, beech etc. with a rich AWVP ground flora (but, curiously, no wood anemones). Many of the trees have been windthrown and the whole area is rather a tangle.
- 9.46.3 A more varied structure of wood, with glade areas for flora and fauna would be an appropriate objective for this compartment.

9.47 Compartment 8c (4.2 ha)

- 9.47.1 Quite a small compartment broadly congruent with three pre-reservoir field north of the demolished Meadowlands. There were also some small shaws between the fields and some of the AWVPs like moschatel (*Adoxa moschatellina*) found in the compartment might be associated with these former shaws. A large section of the wood overlies the Tunbridge Wells Sand stratum, the only part of Brede High Woods (other than the detached compartment 11a north of Great Sanders) to do so. The rest is over Wadhurst Clay.

- 9.47.2 Some of the woodland overlying the Tunbridge Wells Sand is very attractive, with birch trees, fern, moss and much fallen timber and this may be due to the light sandy soil. This area could be managed as open mixed woodland with varied structure to bring out this Tunbridge Wells Sand character or, alternatively, treated as a minimum intervention area.
- 9.47.3 In places there are some fine standard beech trees that would be worth haloeing and there is an old forestry road running east to west across the compartment. It would be a good idea to open this up into a proper 30 metre wide ride to create a wider range of habitats within the compartment and to create a corridor from the countryside to the east across Goatham Lane.
- 9.47.4 At TQ 8066 1970 there is a small glade, perhaps kept open by deer. The size of this could be increased and it could be extended to the east/west ride.
- 9.47.5 Just west of the compartment centre there is an ancient woodland bank that meanders through the trees from the south to the north of the site. This is clearly the division between fields on the 1885 map. Coppice hazel and other species growing on it are probably the remnants of a pre-reservoir hedge. Much of the compartment west of this is birch scrub mixed with other trees.
- 9.47.6 Just north of the pylon on the boundary with 8d there is a deep ditch that runs into the woodland which has various humps and bumps beside it that may be of archaeological significance.
- 9.47.7 Some of the eastern part of this compartment has been planted with sessile oak (*Quercus petraea*) and this may have been due to the sandy, acid soils derived from the underlying Tunbridge Wells Sand stratum.
- 9.47.8 The compartment has a small stream on its north eastern border that narrows into a gill in some places. Near Goatham Lane it runs through a tunnel under an old track at TQ 8972 1974. There is a small 'grotto' here attractively lined with ferns and other plants.
- 9.47.9 In general it is suggested that open ground is extended much more widely over some of the former Meadowlands fields that lay in this compartment and others adjacent to this southern end of the transmission lines. This will be particularly beneficial to some of the scarcer butterflies and moths of the area that often seem to do better in clay areas than in those on lighter soil.
- 9.48 Compartment 8d (1.78)**
- 9.48.1 Another curiously shaped compartment that is broadly congruent to two pre-reservoir fields west of Meadowlands. It overlies Wadhurst Clay. Much of it is mature conifer plantation, but there is a broadleaf area on the northern side with some hollows and excavated pits that

hold water in their bottoms for much of the year. These could be good sites for amphibians and could benefit from a little more light.

9.48.2 Towards the west the trees are smaller and there are scrubby, neglected areas.

9.48.3 Some of the compartment has been drained by ridge and furrow ploughing.

9.48.4 To the south west of the pylon there is a straight line of mature beeches which makes a T-junction with a line of oaks. This has no apparent significance. The land immediately to the south of this is AWVP rich and must be the wood shown on 19th century maps. This runs eastward into compartment 8e.

9.48.5 At TQ 8047 1959 there is an area of scrub that was formerly quite rich in wildlife and a favourite haunt of nightingales. This could with advantage be cleared back again and could be managed as short rotation coppice to maintain its scrubby structure.

9.48.6 At the western end of the compartment there is a plantation of young oak then a wood bank dividing it from that part of the ancient Pond Wood which Southern Water has retained. Between the bank and the reservoir there are many pits and hollows. Slag and ironstone are frequent along the bank and it is assumed that this was an important area in the days of the iron foundry at Brede Furnace. Wild boar rootings are frequent in this area which probably has little footfall.

9.49 Compartment 8e (1.52 ha)

9.49.1 A very curiously shaped compartment like a letter W lying on its side and also congruent with two of the old Meadowlands fields. It overlies Wadhurst Clay. It has two shallow streams that run westwards towards the reservoir, but otherwise is dry.

9.49.2 There is a large area of mature broadleaf plantation running up to Reservoir Lane with various AWVPs, though the presence of old anthills indicate its open grassland character in pre-reservoir days. There is also a patch of about ten gooseberry bushes at TQ 80558 19482 and this may be a relic of a former garden.

9.49.3 There is much rather complicated landscape history here, with wood banks, old hedge lines and other features, sometimes conforming with the present pattern of planting, and sometimes not. Much of the area is mature broadleaved plantation, but there are some interesting trees and coppice surviving from pre-reservoir periods and some good AWVPs such as early purple orchid (*Orchis mascula*).

9.49.4 The two streams from Cpt. 8f continue through this area and are often rich in streamside flora.

9.49.5 More of this area adjacent to the transmission lines could be opened up to reflect the former status of the area as open field adjacent to ancient woodland, while some of the

more distinctive broadleaves should be retained. The long line of overshoot hazel coppice is probably the remnant of an old hedge and, resources permitting, could be restored, or the hazel could be allowed to grow on.

9.50 Compartment 8f (1.71 ha) Meadowlands

- 9.50.1 This compartment lies to the north of Goatham Lane and covers the area where the former buildings of Meadowlands stood before they were demolished when the reservoir was constructed. The compartment is curiously varied with some areas where bluebells flourish and others where they do not. Some places are rich in early purple and spotted orchids or primroses and there is much hart's-tongue and other fern around the old pond.
- 9.50.2 This pond appears to have permanent water, but is being invaded by willow and other plants and would benefit from being opened up and restored (with much of the willow removed). Before this is done it would need to be checked for fauna such as great crested newts and uncommon invertebrates.
- 9.50.3 While most of the area appears to have been open from pre-reservoir maps, there may have been small woodland areas or hedgerows where the AWVPs have been able to survive.
- 9.50.4 The two streams that flow under the transmission lines and the public footpath and both rise in this compartment near Goatham Lane
- 9.50.5 The north of the wood is conifer plantation and there is neglected coppice with standards in the centre. The whole area is much invaded by birch.
- 9.50.6 The section of this compartment under the transmission lines, shared with 8d and 8e, is very rich in open ground wildlife much of which will have survived from pre-reservoir days when large areas here were open field.
- 9.50.7 The edge of this compartment bordering Goatham Lane has much spindle (*Euonymus europaeus*), the only elm (*Ulmus* sp.) so far recorded in Brede High Woods and a patch of Japanese knotweed (*Fallopia japonica*). It is important that the latter, a very invasive proscribed alien, is eradicated as soon as possible.
- 9.50.8 It is recommended that this compartment is made into a more open area of mixed broadleaves of varied structure, a condition that could be achieved simply by removal of the conifers. Some warm, sunny scallops could be created on the western side adjacent to the transmission lines and the area between the pond and the transmission lines could be made more open, possibly with a means of access from the public footpath (though this might turn the pond into a dog plunge). Care should be taken to protect the crab apple on the woodland edge beside the transmission lines at TQ 80624 19414.

9.51 Compartment 9a (4.32 ha) Pond Wood

- 9.51.1 A fine ancient woodland largely overlying complex strata consisting of bands of Ashdown Beds, Clay in Ashdown Beds, Wadhurst Clay and Sand in Wadhurst Clay. It is mainly mixed coppice with oak standards, but there is a great variety of other trees and shrubs. The ground flora reflects the ancient woodland status and the area was mapped entirely as woodland on the 1800 and 1885 OS maps.
- 9.51.2 Wild boar are very active in this compartment.
- 9.51.3 There are some interesting trees on the bank bordering Cpt. 9a including, at TQ 8051 1940, a wild service (*Sorbus torminalis*) sandwiched tightly between two trunks of a coppiced crab apple.
- 9.51.4 The northern bank of Reservoir Lane below the wood is exceptionally rich in AWVP's with plants like woodruff (*Galium odoratum*) that have so far been recorded nowhere else in Brede High Woods.
- 9.51.5 There is a fairly recently cleared area at TQ 8039 1936, only part of which is WT property. The small stream on the eastern side of this glade (Southern Water land) has a fair quantity of the rather scarce woodland moss *Hookeria lucens*, a large and conspicuous species. This may well spread up the larger stream to the east into WT land, but I have not yet seen it there. There is also a plant of hard shield-fern (*Polystichum aculeatum*) just outside the WT boundary and, again, this may well occur in Cpt 9a.
- 9.51.6 The management aim should be to maintain the integrity of this important area of ancient woodland. It has probably long been managed as coppice with standards and this could continue if practical. The best alternative is probably minimum intervention. The open glade is an attractive area, but quite small and isolated. It may be best to let this return to woodland. The open ground dimension should be concentrated on the former field areas in adjacent compartments.

9.52 Compartment 9b (1.27 ha)

- 9.52.1 An area within Pond Wood almost entirely on Wadhurst Clay and lying immediately to the north of the North Powdermill Fault. Above the stream along the southern side there is much slumping of the clay producing an interesting area geomorphologically with a varied flora, especially of mosses and liverworts.
- 9.52.2 There is a wood bank dividing the compartment from 9a with some wild cherry trees (*Prunus avium*).

9.52.3 Along the top of the northern bank of the stream is a narrow winding hollow which it is understood is the line of a former ditch, seemingly of some antiquity, a feature that is found elsewhere in Brede High Woods, above the southern stream in Cpt. 2e, for example.

9.52.4 This compartment is best managed in the same way as 9a, the PAWS section of Pond Wood with young Corsican pine. If coppicing proves impractical, a minimum intervention scheme should be followed. Consideration should be given to widening the rides to provide access for mobile species from the Powdermill Reservoir area to those parts of Brede High Woods to the east and north. At present Pond and Holman Woods presents a rather formidable barrier along the south eastern side of the reservoir.

9.53 Compartment 10a Horns and Rafters Woods (9.47 hectares)

9.53.1 This fine area of ancient woodland lies to the south of Reservoir Lane (formerly Powdermill Lane). The northern section, Rafters Wood, is mainly over the Ashdown Beds stratum, whilst a band of Clay in Ashdown Beds widens to cover much of Horns Wood in the south. There does not appear to be a clear boundary between the woods, but they are distinguished by the lighter and heavier underlying soils.

9.53.2 On the western boundary there is the outfall stream from the reservoir, still following its pre-reservoir course and beyond this cultivated fields, so the compartment will, to some extent, be affected by spray drift and the stream from fertiliser and, if used, insecticide and herbicide run off, though there are no obvious effects of this.

9.53.3 The flora is very rich with oak, hornbeam, ash (including some very old coppice stools), birch, holly and other trees and a diverse ground flora with many AWVP's. There is an overshoot hedge on an old bank running from close to the southern border of Horns Wood northwards.

9.53.4 Along the northern part of Rafters Wood there has been some recent coppicing producing open temporary glades with a different plant profile from the more heavily shaded areas. Such glades are important for bird and invertebrate life and a management aim should be to ensure that there are always some open areas in this compartment in the form of glades and/or rides.

9.53.5 As is so often the case, the steep, north facing bank of Rafters Wood alongside Reservoir Lane has a number of AWVPs that currently do not appear to grow within the wood. These include wood melick (*Melica uniflora*), tutsan (*Hypericum androsaemum*), polypody (*Polypodium vulgare*) and bitter vetch (*Lathyrus linifolius*). To some extent this appears to be due to the near-vertical slope, but the bank needs to be considered as an integral part of the wood and its current management by the local authority is self-evidently maintaining its ancient woodland character.

9.53.6 Horns and Rafters Woods should be managed as closely as possible in the traditional way of coppice with standards. If this proves impractical a minimum intervention policy should be followed with the establishment of glades and open areas as recommended above.

9.54 Compartment 11a (2.71 ha)

9.54.1 A detached block of woodland on a knoll by the B2244 to the north of Great Sanders. In the past it was connected by more or less continuous woodland to Cpt. 1a (Thorp's Wood). It is a recent wood and does not appear on Ordnance Survey maps until after 1940. However, it is surrounded by a steep bank rather like a hill fort and the ground does, in fact, rise to a summit. It is also bisected by an ancient, originally Roman, road (Lucey, 1978). Apart from this road there is an old track into the wood from the south east corner. Otherwise access is difficult for vehicles or pedestrians without passing over private property.

9.54.2 The wood seems to be particularly rich in bird and insect life and both badgers and deer are active while the trees are rich in mosses, lichens, liverworts and algae.

9.54.3 If there is any archaeological significance to this compartment, other than the Roman road, it appears not to have been documented, but the curious geomorphology of the site does deserve some explanation.

9.54.4 The banks could be a lynchett formation created by centuries of ploughing, but they appear from their vegetation to be ancient woodland and this would stop soil slipping down. They are visible as linear shaws, rather than divisions between fields on the late 19th C OS maps.

9.54.5 The interior of the wood is largely ash plantation mixed with beech, spruce and larch. There is an understorey of sweet chestnut coppice. The ground flora has quite a wide range of species but is dominated by grass, stinging nettle and creeping buttercup with patches of bramble and fern. Most of the ash trees have a distinctive coating of the orange *Trentepohlia* alga. Ancient woodland plants occur here are there, presumably because they have been fairly readily able to colonise from the surrounding banks. There is some rhododendron invasion, particularly at the northern end, and control measures should be considered.

9.54.5 Perhaps the best management strategy for this compartment is one of minimum intervention, partly because access is difficult, both for pedestrians and vehicles, and partly because it is known to have been almost entirely planted on open fields after 1940 and thus allow an insight into the way in which woods change and develop.

10.0 Notes on flora (in progress)

10.1 The intention of this section of the report is to give and outline of the distribution of selected plants in Brede High Wood. Once the new tranche of records has been digitised it should be read in conjunction with this. Eventually it will become a *Flora of Brede High Woods* and, again, provide some baseline data for future survey and monitoring work.

10.2 The list below gives a flavour of what might be done.

Allium ursinum **Ramsons, Wild Garlic**

This is not common in the Woodland Trust areas of the reservoir catchment woods and grows more abundantly in the privately owned woods and the southern side of the reservoir. However, there are good colonies by the stream in Cpt. 10a (Rafters & Horns Wood), a smaller quantity by the stream along the southern border of Cpt. 4f and a colony on the northern border of Reservoir Lane that is starting to encroach into Pond Wood. It is an ancient woodland indicator species.

Brachypodium sylvaticum **False brome grass**. Not common. There is a good colony on either side of the steps on the public footpath at TQ805198. It seems to be most frequent on the steeper banks.

Camelina sativa **Gold of pleasure**. By the pylon at TQ 8050 1983, May 2008. One plant.

Geum urbanum. **Herb bennet** This often common woodland plant is relatively scarce in parts of Brede High Woods.

Helleborus viridis. **Green hellebore** This is a very rare species in East Sussex. There is a colony of about a dozen mostly large and probably old plants on the western bank of a shallow pit (TQ808202). They appear to be quite natural here, but do not seem to be reproducing themselves.

Lysimachia nemorum **Yellow pimpernel** A very pretty woodland species with its yellow, star-shaped flowers. Common in most places.

Melica uniflora. **Wood melick** The elegant grass is one of the highest rated ancient woodland indicator plants. There is a colony on the bank just south of the main car park and it often grows on banks around the periphery of Brede High Woods, but seems to occur rarely within.

Orchis mascula. **Early purple orchid**. Occurs, usually in small patches, or as individual plants, throughout the area. In some places the flowering stalks are eaten by deer, in other places they ignore them though the animals are just as abundant.

Polystichum aculeatum **Hard shield-fern** So far found in only three places

Polystichum setiferum **Soft shield-fern**

Samolus valerandi **Brookweed**

Stellaria uliginosa **Bog stitchwort**. A plant like chickweed with small white flowers and rather glaucous green leaves of characteristic shape. It likes damp, rather open spots and is often found beside deep, water-filled wheel ruts along the rides.

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Patrick Roper – some background information

Patrick Roper has worked as a consultant ecologist since 1993 within his own business, Patrick Roper Associates, based in Sedlescombe, East Sussex

He is a doctor of business administration, an elected fellow of the Linnean Society and of the Royal Entomological Society and a member of the British Ecological Society. He was on the council of the British Entomological & Natural History Society from 2002 to 2004 and was a director of Butterfly Conservation and editor of its journal from 1990-1998. He is also on the council of the Sussex Amphibian & Reptile Group, edits their newsletter and has a great crested newt handling licence from Natural England (formerly English Nature). He is an active member of the Hastings Badger Protection Society.

He is a listed surveyor for Farm Environment Plans with Natural England's Rural Development Service.

He manages the Rare Species Inventory for the Sussex Biodiversity Record Centre in a professional capacity and edits *Adastra*, their annual review of wildlife recording in Sussex.

He has given expert ecological evidence to public inquiries on developments in East Sussex.

He is environmental adviser to the Pestalozzi International Village Trust in Sedlescombe and one of their trustees.

Dr Roper is the recorder for two-winged flies (Diptera) in East and West Sussex. He has also studied the wild service tree, *Sorbus torminalis*, for over 30 years during which time he coordinated the national survey of the species for the Botanical Society of the British Isles and the Biological Records Centre. He is author of a book on the tree published in May 2004 and a member of the Sussex Botanical Recording Society.

He is co-author of *Wooded Heaths in the High Weald*, a research report published by the Sussex Record Centre Survey Unit on behalf of the Weald Heathland Initiative (2004) and the subsequent paper *Ancient woodland or ancient heath? Re-examining the importance of wooded heaths in the Weald* (Proceedings of the 8th National Heathland Conference, 2004).

He lectures frequently on a variety of ecological and wildlife topics, has contributed refereed papers to a number of scientific journals and contributes to the Rye and Battle Observer newspapers. He was a member of the working party that revised the national Country Code in 1981 and a member of the committee for the establishment of Sites of Nature Conservation Importance (SNCIs) in East Sussex. He has appeared on wildlife programmes on radio and television on many occasions including the national 2007 Springwatch on BBC television.

Recent clients for ecological work have included:

Beauport Park Hotel, BdR Engineering, Bullens, Calverley Park Association, Canopy, CCM, Ecology Consultancy Ltd., David I. Leigh Architects, G & F Pooke, Gemselect Ltd., Hastings Borough Council, Hawkins Brown, Hayland Developments Ltd., High Weald AoNB Unit, J & J Design, Kent Design Partnership, Lseed Ltd., National Trust, Oakdene Homes, Park Lane Homes (South East) Ltd., Rother District Council, Royal Society for the Protection of Birds, Rye Harbour Nature Reserve, Simon Jones Associates Ltd., Southern Water, Sussex Biodiversity Record Centre, Sussex Wildlife Trust, Wardell Armstrong, Wealden District Council, Weekes Consulting, Westridge Construction Ltd., West Sussex County Council, The Wetland Trust and The Woodland Trust.

Many of these clients have returned several times with new commissions.

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