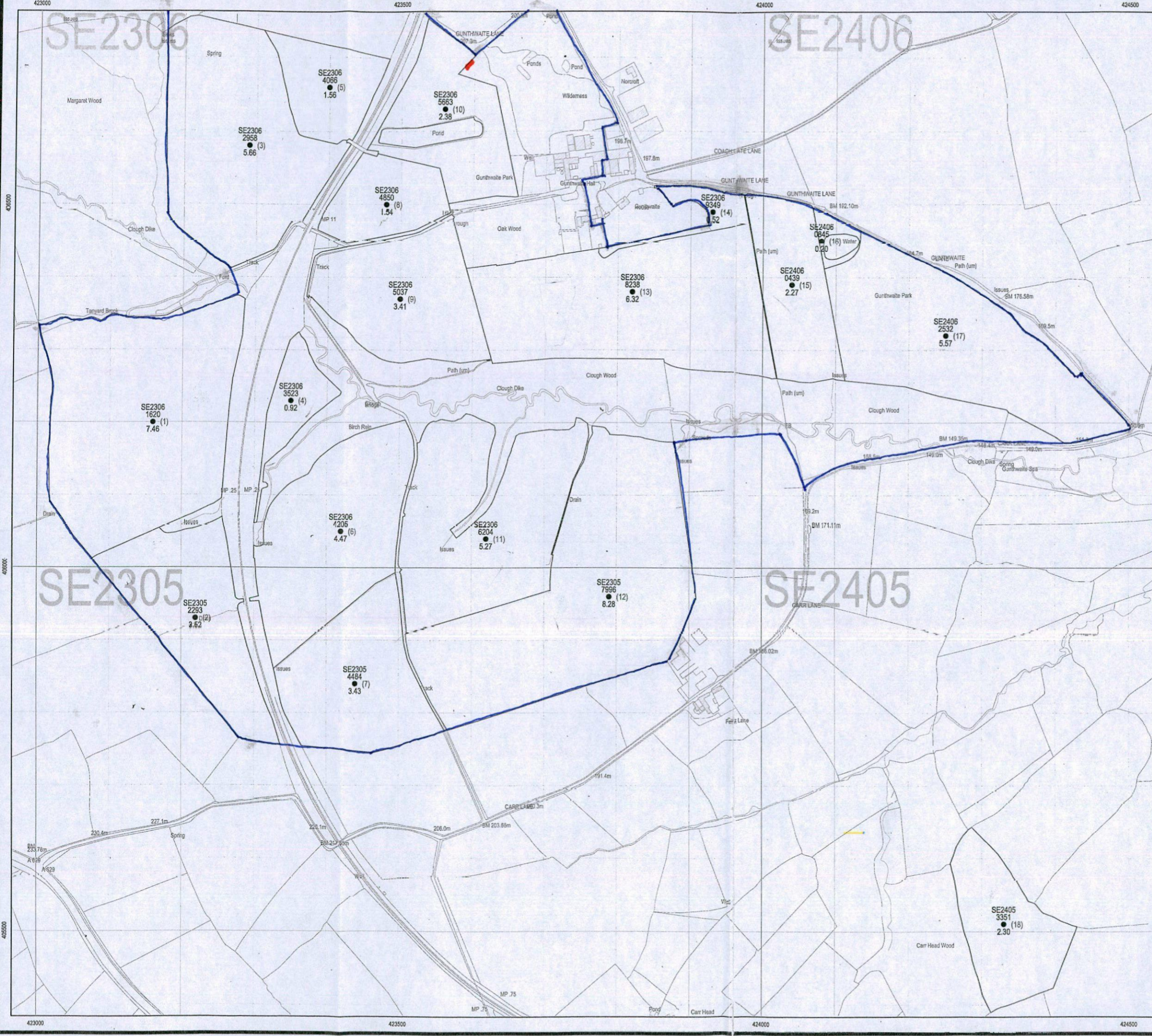


SITE LAYOUT DRG A2 2/2016



OS MasterMap 1250/2500/10000 scale  
 31 March 2015, ID: M4P-00415546  
 Orchard Bookshop  
 1:500 scale print at A4, Centre: 423606 E, 406691 N  
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04

rpa  
rural payments agency

Main Holding Number  
47/619/0007

Sheet Holding Number : 47/619/0007

Updated IACS 2001 Information

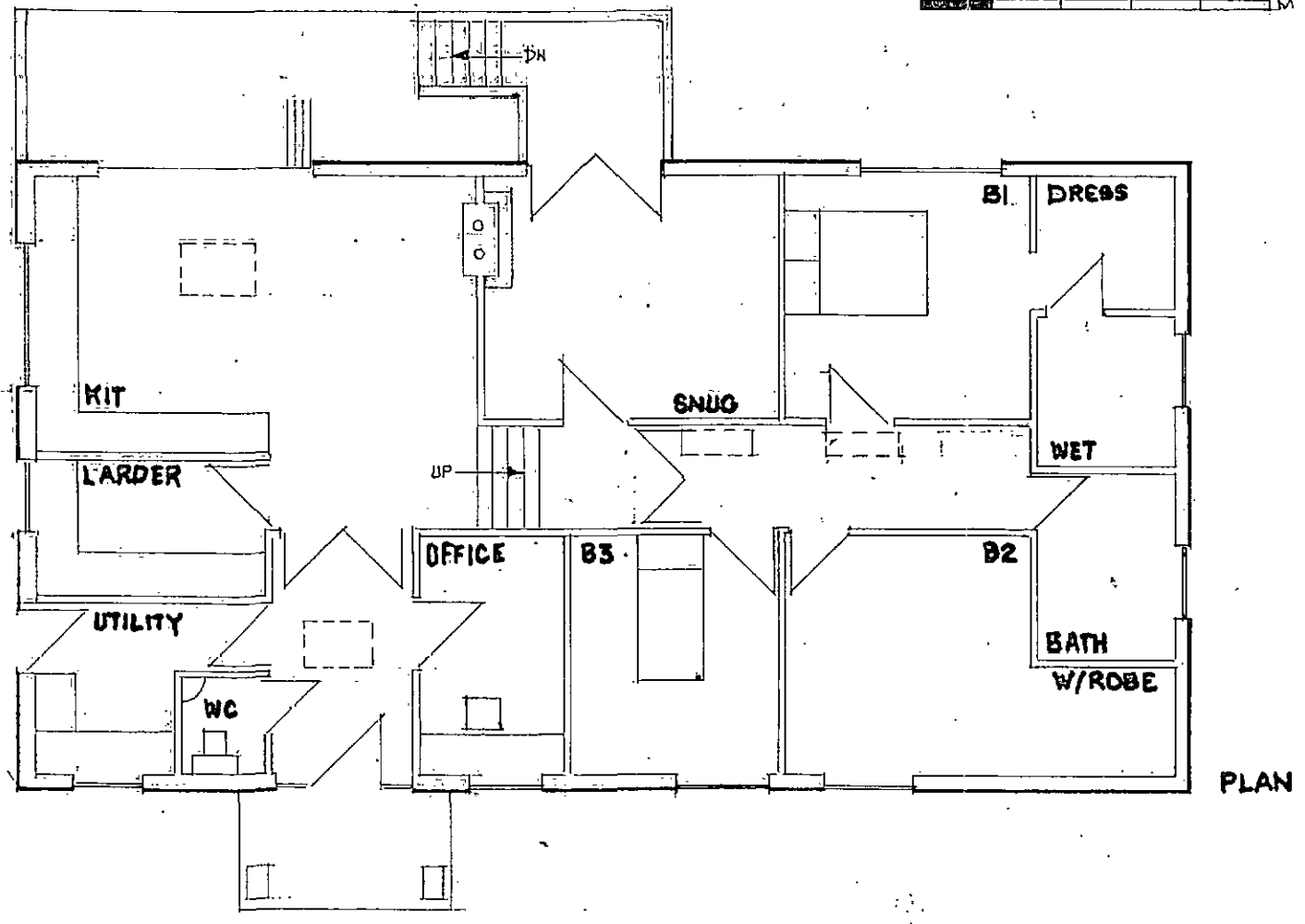
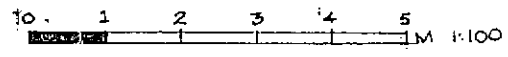
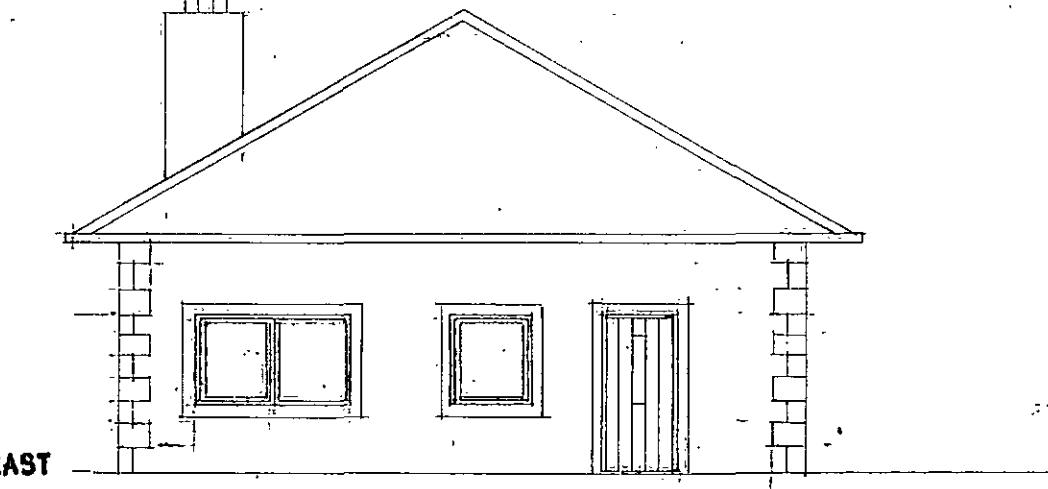
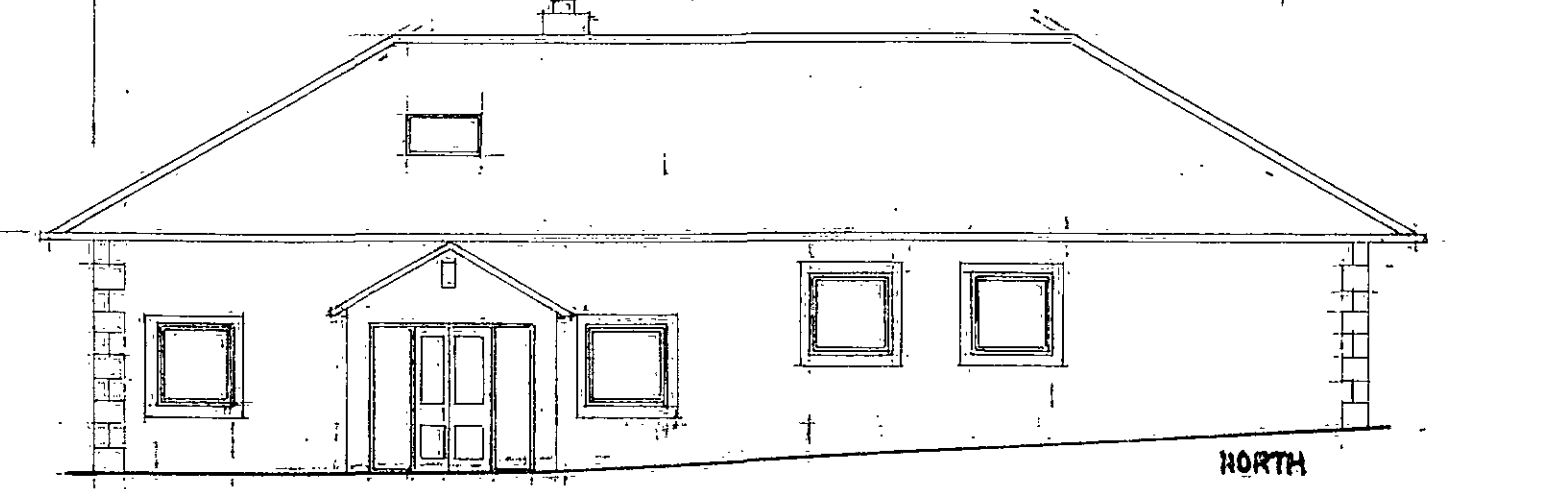
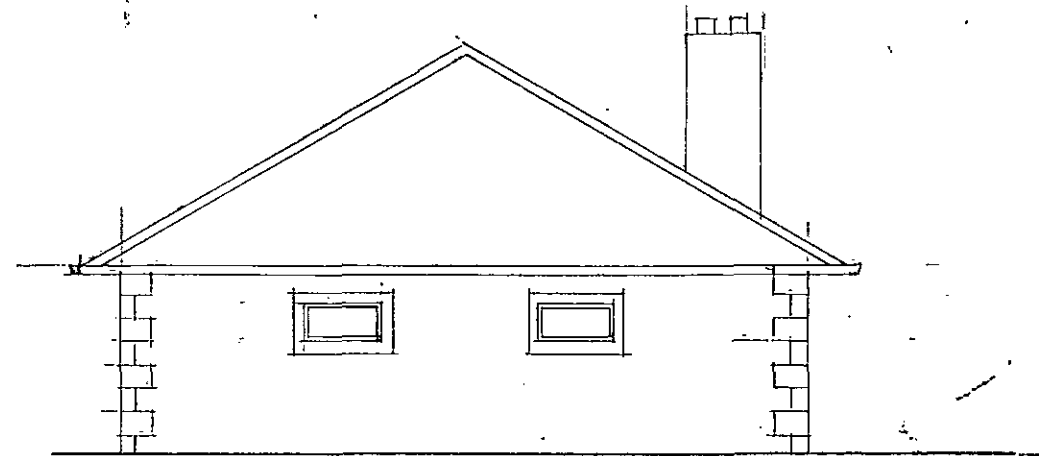
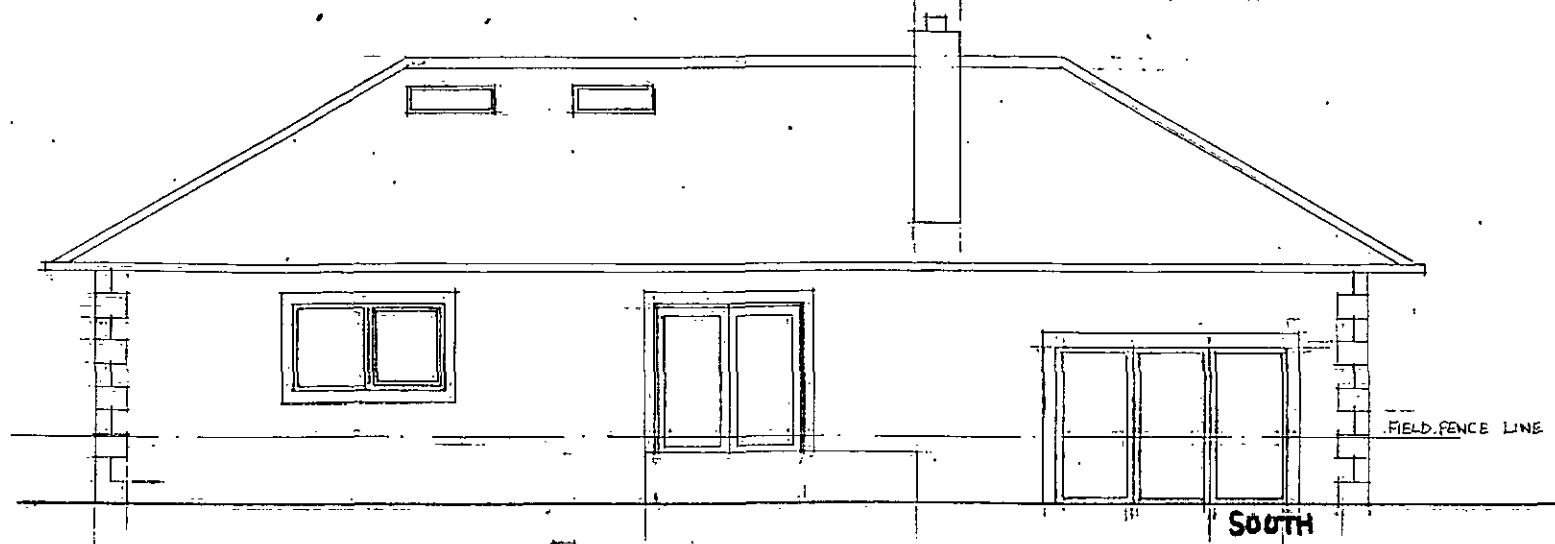
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|---------|--------------|------------|--------------------------|-----------------------------|--------------------|
|         | OS Map Sheet |            |                          |                             |                    |
| 1       | SE2306       | 1620       | 7.48                     | 7.46                        |                    |
| 2       | SE2305       | 2293       | 3.51                     | 3.52                        |                    |
| 3       | SE2306       | 2958       | 5.70                     | 5.66                        |                    |
| 4       | SE2306       | 3523       | 0.92                     | 0.92                        |                    |
| 5       | SE2306       | 4066       | 1.56                     | 1.56                        |                    |
| 6       | SE2306       | 4205       | 4.59                     | 4.47                        |                    |
| 7       | SE2305       | 4484       | 3.53                     | 3.43                        |                    |
| 8       | SE2306       | 4850       | 1.54                     | 1.54                        |                    |
| 9       | SE2306       | 5037       | 3.30                     | 3.41                        |                    |
| 10      | SE2306       | 5663       | 2.39                     | 2.38                        |                    |
| 11      | SE2306       | 6204       | 5.28                     | 5.27                        |                    |
| 12      | SE2305       | 7996       | 8.31                     | 8.28                        |                    |
| 13      | SE2306       | 8238       | 6.32                     | 6.32                        |                    |
| 14      | SE2306       | 9349       | 0.51                     | 0.52                        |                    |
| 15      | SE2406       | 0439       | 2.49                     | 2.27                        |                    |
| 16      | SE2406       | 0845       | 0.19                     | 0.20                        |                    |
| 17      | SE2406       | 2532       | 5.77                     | 5.57                        |                    |
| 18      | SE2405       | 3351       | 2.30                     | 2.30                        |                    |

Print Name : .....

Signed : ..... Date : .....



Scale 1:5000 Date printed : 03/02/2004  
Version : Final  
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AGRICULTURAL WORKERS DWELLING, GUNTHWAITE LANE  
 PLAN AND ELEVATIONS SCALE 1:100 DRG A1 2/2016

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**Forestry Commission**  
England

Property Name **Gunthwaite Hall**  
Contract Number **26832**  
Case Reference **28211**

## Licence To Fell Growing Trees

1. This Licence gives you permission, under section 10 of the Forestry Act 1967 (as amended), to fell only the trees specified for felling and shown on the maps in the English Woodland Grant Scheme contract bearing the same number as this licence. Trees specified for felling in this contract are detailed under the heading Felling.

2. In England, a Felling Licence will not cover the felling of trees to which a Tree Preservation Order applies or which are in a Conservation Area if you have not declared the existence of the Order or Area in the application.

### 3. This licence is valid until 30/Jan/2022

4. Tree felling marked as **Unconditional** in the English Woodland Grant Scheme contract is unconditionally approved by this licence.

5. Tree felling marked as **Conditional** in the English Woodland Grant Scheme contract will require restocking in accordance with the Schedule below

6. You must tell others involved with the felling about the details in this licence by giving or showing them a copy of this licence along with the felling section and map from the English Woodland Grant Scheme Contract. If you sell the land you must also tell the new owner about this licence

7. If a Tree Preservation Order is placed on these trees after this licence is issued you must get the consent of the Local Authority before felling the trees

Signed by Lorna Rebekah Acomb on 16/NOV/2012

### Schedule

1. The land on which the felling takes place or other land specified in the EWGS contract must be restocked in accordance with the rules and practice of good forestry using:

- (a) the planting and regeneration operations; and
  - (b) the species of tree;
- specified for the area of land in the Felling section of this contract

2. Condition 1 above will be carried out by the end of the first full planting season after felling or such other time as specified in the EWGS contract

3. For a period of 10 years after planting;

- (a) the trees will be adequately protected and weeded; and
- (b) losses will be replaced to provide a stocking of no less than the minimum required by or otherwise specified in the EWGS contract.

\* The normal planting season runs from autumn to spring the following year

THIS IS YOUR  
FELLING LICENCE

CURRENT

# Gunthwaite Hall Woodland Management Plan

|  |  |    |            |
|--|--|----|------------|
| Period of the Plan   | 01/10/2011   | To | 30/09/2031 |
| Date of last review  | n/a  |    |            |
| Date of next review  | 01/10/2016   |    |            |
| Owner  | R. P. & M. Emmott & Sons<br>Address as below   |    |            |
| Contact  | Mr. Richard Emmott<br>Gunthwaite Hall<br>Gunthwaite<br>Penistone<br>Sheffield<br>S36 7GE<br><br>Telephone: 01484 862709<br>Mobile: 07913 169853<br>E-mail: willemmott@live.co.uk |    |            |
| Signed declaration of tenure rights and agreement to public availability of the plan |  |    |            |

## 1. Background information

### 1.1 Location

|                                  |                        |
|----------------------------------|------------------------|
| Nearest town, village or feature | Upper Denby            |
| Grid reference                   | SE239062 (Clough Wood) |
| Total area (ha)                  | 13.1 hectares          |

### 1.2 Description of the woodland(s) in the landscape

The Gunthwaite Hall woods fall within the northwest corner of a landscape categorised by the BMBC Landscape Character Assessment as *E1, West Barnsley Settled Wooded Farmland*. This is distinguished by rolling landform with hills and broad valleys, and intact farmland interspersed with woodland. The underlying geology is middle coal measures and lower coal measures, comprising alternating bands of shales and sandstones with frequent coal seams, which have weathered and eroded at different rates, giving rise to a rolling landform.

Views are generally enclosed by landform and woodland, with some extensive views from higher ground, although with the exception of West Triangle (Compartment 1) to the west, the woodlands of Gunthwaite Hall fall within the rolling landform in such a way as to create a more 'intimate' landscape: The lanes allowing access to the farms and settlements of the area pass close to some of the woods, but there are no open views of the woods themselves, apart from the higher West Triangle (Compartment. 1), visible from Gunthwaite Lane atop one of the 'waves' distinctive of this landscape.

This character continues within the woods themselves, with views from them confined by the rolling landscape to the middle-distance, and no grand vistas present. The most open view is from the small West Triangle (Compartment. 1) again, looking out into the surrounding landscape, with some views towards the edge of the moorland to the west, and the surrounding agricultural land.

Heights vary from the more exposed West Triangle (Compartment. 1) in the northwest, at around 220m, falling to 150m at Clough Wood (Compartment. 7) in the south-east, but this fall is not uniform, with the rolling landform creating varying heights.

The woods are within a landscape characterised by three dominant land use patterns: agriculture, woodland and residential. Agriculture is a mixture of livestock and arable farming. Fields are generally irregularly shaped and small to medium sized, and occasionally large, and field patterns are mixed and variable. The woodlands are scattered throughout, being mainly deciduous but are sometimes mixed, containing both deciduous and coniferous trees. Many are small or medium sized, and narrow, following the steeper, lower valley sides of streams. Trees and woodlands become less frequent towards the higher, more exposed and flatter land on the western side, which is where the Gunthwaite Hall woods are located, thus increasing their value as landscape features.

The landscape here was previously occupied by a deer-park (South Yorkshire Historic Environment Characterisation Project, Barnsley Character Zone Descriptions, Private Parkland), established between the 15<sup>th</sup> and 16<sup>th</sup> centuries. Such parklands were originally created as symbols of status and wealth, but were not developed as hunting grounds, as the enclosed spaces would have been too small for a true hunt. Rather, they were a store for fresh venison, other meats, and supplies of wood and timber from the compartmented coppice woods within the parks, and ancient pollarded trees growing in the otherwise treeless 'launds'. However, rising maintenance costs saw their demise, and Gunthwaite was converted to agricultural use in the 18<sup>th</sup> century. Many historic features remain in the landscape, including sections of the tall, deer-proof drystone wall, and probably the field systems, tracks and the woods themselves.

The Gunthwaite Hall woodland comprises about 13.1 hectares: See Map 1 for details of compartment and sub-compartment boundaries; map 7 for details of public roads, rights of way and permissive paths; map 9 for details of operational access.

### 1.3 History of management

Very little is known about the history of the woodlands. Compartments 6 (Birch Rein) and 7 (Clough Wood) are listed as Ancient Woodland Sites, although with non-native species being dominant, they are more correctly described as plantations on Ancient Woodland Sites. Compartments 1 (West Triangle), 2 (Wilderness), 3 (Oak Wood), 6 (Birch Rein) and sub-compartments 7a, c & d (Clough Wood), all appear on the 1895 Ordnance Survey (OS) map.

Planting dates for sub-compartments 1a (West Triangle), 2a (Wilderness), 3a (oak Wood), 4a (Railway West) and 7a (Clough Wood) are unknown.

Sub-compartment 2b (Wilderness) is believed to have been clear felled and replanted around 1960.

Compartment 3 (Oak Wood) was thinned around 1984.

Sub-compartment 4a (Railway West) is shown as bare land on the 1895 OS map and bare land with scattered trees on the 1910 and succeeding OS maps.

Compartment 5 (Railway East) is shown as bare land on all old OS maps up to and including the 1948 map. The 1960 OS map shows it as broadleaved woodland so it is assumed that it was planted sometime between those two dates, probably closer to 1948 or it would not have had time to develop enough to be classified as woodland in 1960.

Compartment 6 (Birch Rein) was replanted around 1965.

Sub-compartment 7b (Clough Wood) used to be a corner in an agricultural field that was too steep to cultivate and therefore allowed to develop into scrub. It is first shown as scrub on the 1960 OS map.

Sub-compartments 7c & d were clear felled and replanted around 1995.

No silvicultural work has been undertaken in any of the woodland since the clear fell/replant in 1995 and no thinning work since 1984.

## 2. Woodland information

### 2.1 Areas and features

| 2.1.1 Designated areas  | In woodland | Adjacent to woodland | Map |
|---|-------------|----------------------|-----|
| Ramsar Sites  | n/a         | n/a                  |     |
| National Nature Reserves (NNRs)   | n/a         | n/a                  |     |
| Sites of Special Scientific Interest (SSSIs)  | n/a         | n/a                  |     |
| Areas of Outstanding Natural Beauty (AONBs)   | n/a         | n/a                  |     |
| BMBC Natural History Sites  | 4, 6, 7     | n/a                  | 2   |
| Local Nature Reserves (LNRs)  | n/a         | n/a                  |     |
| Tree Preservation Orders (TPOs)   | n/a         | 7                    | 2   |
| Local Authority Conservation Areas (Planning designation)   | n/a         | n/a                  |     |
| Other designations:   |             |                      |     |
| District Green Infrastructure Corridors, D39: Historic Estates  | All         | All                  |     |
| <b>Details</b><br>BMBC Natural History Sites: Compartment 4, Daking Brook; Compartments 6 & 7, Gunthwaite Dam and Clough Wood<br>Tree Preservation Orders: Compartment 7, Alder carr adjacent to eastern tip, across Carr Lane  |             |                      |     |
| 2.1.2 Rare and important species  | In woodland | Adjacent to woodland | Map |
| Red Data Book (RDB) or Biodiversity Action Plan (BAP) species   | All         | n/a                  | 1   |
| Evidence of badgers   | 6, 7        | -                    | 4   |
| Rare, threatened, European Protected Species (EPS) or Species Action Plan (SAP) species   | n/a         | n/a                  |     |
| <b>Details</b><br>There are some active badger setts in compartment 7, Clough Wood. There is one small area of digging in compartment 6 (Birch Rein) that could have been done by badgers or foxes.<br>A biological records search was carried out. Although there are no BAP or Red Data Book records specific to the woods, except for Green Woodpecker in Clough Wood, the following BAP species have been recorded in the vicinity: Brown Hare, Curlew, Freshwater Crayfish, House Sparrow, Lapwing, Spotted Flycatcher, Tree Sparrow and Yellowhammer. The following red or amber list birds have been recorded in the area: Blackbird, Bullfinch, Curlew, Dunnock, Fieldfare, Goldfinch, Green Woodpecker, House Martin, House Sparrow, Kingfisher, Lapwing, Meadow Pipit, Mistle Thrush, Mute Swan, Skylark, Spotted Flycatcher, Starling, Swallow, Tree Sparrow, Willow and Warbler Yellowhammer<br>A full list of species recorded in the vicinity is shown in Appendix 1. |             |                      |     |

| 2.1.3 Habitats   | In woodland | Adjacent to woodland | Map |
|--|-------------|----------------------|-----|
| Ancient semi-natural woodland (ASNW). This is an Ancient Woodland Site (AWS) with mainly native trees on it.   | 6, 7        | -                    | 3   |
| Other semi-natural woodland (OSNW)   | n/a         | n/a                  |     |
| Plantations on ancient woodland sites (PAWS). This is an Ancient Woodland Site (AWS) with mainly non-native trees on it.   | n/a         | 4                    | 3   |
| Semi-natural features in PAWS  | n/a         | n/a                  |     |
| Woodland margins and hedges  | All         | n/a                  | 1   |
| Veteran and other notable trees  | n/a         | n/a                  |     |
| Breeding sites   | n/a         | n/a                  |     |
| Habitats of notable species or subject to Habitat Action Plans (HAPs)  | 6, 7        | n/a                  | 4   |
| Unimproved grassland   | n/a         | n/a                  |     |
| Rides and open ground  | 4           | n/a                  | 5   |
| Valuable wildlife communities  | n/a         | n/a                  |     |
| Feeding areas  | n/a         | n/a                  |     |
| Lowland heath  | n/a         | n/a                  |     |
| Peatlands  | n/a         | n/a                  |     |
| Others   | n/a         | n/a                  |     |
| <b>Details</b><br><p>Although listed as Ancient Woodland Sites, compartment 6 (Birch Rein) is predominantly larch and compartment 7 (Clough Wood) has a high proportion of beech and sycamore. Both may therefore be more accurately described as Plantations on Ancient Woodland Sites.</p> |             |                      |     |

| 2.1.4 Water   | In woodland | Adjacent to woodland | Map |
|---|-------------|----------------------|-----|
| Watercourses  | 3, 4, 6, 7  | n/a                  | 6   |
| Lakes and reservoirs  | n/a         | n/a                  |     |
| Ponds   | 2           | 2                    | 6   |
| Wetland habitats  | n/a         | 7                    | 2   |
| <b>Details</b><br><p>Compartment 2 (Wilderness): There are four ponds, marked on the OS map, within wood, which contained little or no water at the time of the survey, after a very dry spring and summer. They do fill up with water in the winter. An adjacent fishing pond, to the west of the compartment, is accessed through this wood.</p> <p>Compartment 3 (Oak Wood): Two old drainage ditches are present in the wood, one parallel with the eastern boundary, and one with the western. These are not marked on the OS map, and were dry at the time of the survey, after a very dry spring and summer.</p> <p>Compartment 4 (Railway West): Clough Dike and Tanyard Brook both flow into the</p> |             |                      |     |

compartment from the east, meeting within it and flowing out to the south-east as Clough Dike.

Compartment 6 (Birch Rein): Clough Dike flows from north-west to south-east through the site, with an additional watercourse flowing north-east from the south-eastern arm of the wood, and joining the dike just prior to its flowing out of the wood, under Clough Bridge.

Compartment 7 (Clough Wood): Clough Dike flows west to east through the majority of the compartment. A number of drains and streams, not all marked on the OS map, flow into it down the valley-sides. Additionally, a valuable wetland habitat, an alder carr, is located near to eastern tip of side, across Carr Lane, and subject to a TPO (see Map 2).

| 2.1.5 Landscape  | In woodland | Adjacent to woodland | Map |
|--|-------------|----------------------|-----|
| Landscape designated areas   | n/a         | n/a                  |     |
| Landscape features   | n/a         | n/a                  |     |
| Rock exposures   | 4, 6, 7     | n/a                  |     |
| Historic landscapes  | All         | All                  | 8   |
| Landscape Character Area<br>BMBBC Landscape Character Assessment: <i>E1, West Barnsley Settled Wooded Farmland</i> | All         | n/a                  |     |
| Areas of the woodland prominent from roads   | 1, 2, 7     |                      | 7   |
| Areas of the woodland prominent from settlements   | n/a         |                      |     |

**Details**

Compartment 4 (Railway West): Clough Dike flows into this compartment over what appears to be a natural stone waterfall approximately 1.5m in height.

Compartment 6 (Birch Rein): Rock exposure evident around Clough Dike.

Compartment 7 (Clough Wood): Rock exposure evident around Clough Dike. There is a point of particular interest where the dip-angle changes from zero to circa 80 degrees within the space of a few metres.

All of the above features are small and have not been mapped.

| 2.1.6 Cultural features                           | In woodland | Adjacent to woodland | Map |
|---|-------------|----------------------|-----|
| Public rights of way                              | 7           | 2, 3, 5, 6, 7        | 7   |
| Permissive footpaths                              | n/a         | n/a                  |     |
| Prominent viewing points                          | n/a         | n/a                  |     |
| Areas managed with traditional management systems | n/a         | n/a                  |     |

**Details**

| 2.1.7 Archaeological features              | In woodland      | Adjacent to woodland | Map |
|--|------------------|----------------------|-----|
| Scheduled monument                         | n/a              | n/a                  |     |
| Historical features – Gunthwaite Deer Park | 2, 3, 4, 5, 6, 7 | 1                    | 8   |

**Details**

Most of the woods are part of the old deer-park centred on Gunthwaite Hall, and many historic features are still extant in the landscape, including sections of the two metre-tall, deer-proof drystone wall, and probably the field systems, tracks and the woods themselves. Hence, all work should seek to preserve or enhance the character of this landscape.

South Yorkshire Archaeology Unit is not aware of any important historical features in the woods.

**2.2 Woodland resource characteristics**

Compartment 1 – West Triangle is a small (0.1 hectare), flat, triangular block of fairly even aged semi-mature mixed broadleaves surrounded by grassland. It is fully stocked, with sycamore being the main species, along with a few oaks and some dense patches of holly. Some of the sycamore appears unhealthy with signs of die back. The planting age is unknown and the quality of the timber is poor. There is no significant natural regeneration. Pheasant feeders are present.

Compartment 2a – Wilderness is a 0.87 hectare block of mixed broadleaves located just north of and adjacent to the farm buildings. Situated on gently sloping land, the dominant species is beech with significant quantities of oak and birch plus some sycamore, rowan, lime, holly and Corsican pine (the boundaries between sub-compartments 2a and 2b are poorly defined, hence the small amount of pine). Planting years are unknown but the majority of the trees are even-aged and semi-mature with a significant number of older beech and oak. The stocking is variable, with some areas being fairly open but most being well stocked and ready for thinning. The timber quality is generally good, although variable. Pheasant feeders are present.

Compartment 2b – Wilderness is a 0.90 hectares block of mainly Corsican pine located just north of and adjacent to the farm buildings. Situated on gently sloping land, the even aged pine is mixed with small quantities of mixed broadleaves. The planting year for the pine is unknown but estimated at circa 1960. The stand is overstocked, not having been thinned for many years. Timber quality is good. There is no evidence of significant natural regeneration. Pheasant feeders are present.

Compartment 3 – Oak Wood is a 1.09 hectare block of mainly even aged, mature, mixed broadleaves located on gentle to moderate south facing slopes adjacent the farm house. The dominant species is beech with significant quantities of sycamore, ash and oak plus the occasional rowan and willow. There is a significant understorey of dense holly in places, plus one or two laurel bushes. One or two small areas of beech and ash natural regeneration are present and there are also significant amounts of holly regeneration. The compartment is fully stocked and the timber quality is generally good. A small shooting lodge is located near the entrance gate and there are pheasant feeders within the wood and one pheasant pen.

Compartments 4 – Railway West is a 0.5 hectare block of 50% bare land and 50% scrub of little forestry interest. The land has two wide farm tracks running through it surrounded by areas of steep land covered with grass and clusters of uneven aged hawthorn plus small quantities of hazel, sycamore, elm, rowan, holly and ash. The land is open to cattle.

Compartiment 5 – Railway East is a very small (0.04 hectare) block of uneven aged mixed broadleaves located in a triangular piece of land formed by the junction of two farm tracks. The main species present are oak, sycamore and beech of average to good quality. The compartment is fully stocked and located on a gentle south facing slope. There is no significant natural regeneration present. This wood may have been established around 1950.

Compartiment 6 – Birch Rein is a 1.37 hectare even aged mixed wood located on the moderate to very steep slopes either side of Clough Dike and one of its small tributaries. It is an ancient woodland site. The main species are Japanese larch and sycamore with a few beech, oak, elm, holly and rowan. The age of the larch and sycamore is uncertain but it is thought to have been planted around 1965. The compartment is fully stocked and in need of thinning. Timber quality is average and there is no significant natural regeneration present. Pheasant feeders are present.

Compartiment 7a – Clough Wood is a 7.59 hectare even aged, mature, mixed broadleaved linear woodland located on the slopes either side of Clough Dike. The slopes range from gentle to very steep. It is an ancient woodland site. The main species are beech and sycamore with some oak and ash plus a lot of holly in the understorey. The woodland is fully stocked, timber quality is average to good and there is very little natural regeneration.

Compartiment 7b – Clough Wood is 0.19 hectares of steeply sloping, former agricultural land that has been colonised by hawthorn and a few oak over the past fifty or so years. It is fully stocked but has little timber value.

Compartiment 7c – Clough Wood is 0.20 hectares of young, even aged, mixed broadleaved woodland, created by the clear felling and replanting of part of compartment 7a around 1995. Like 7a, it is an ancient woodland site. It is situated on a north facing moderate slope south of Clough Dike. The main species are cherry, ash and sycamore with a small amount of elm regeneration. Compartiment 7c is fully stocked and the timber quality is good.

Compartiment 7d – Clough Wood is 0.25 hectares of young, even aged, mixed broadleaved woodland, created by the clear felling and replanting of part of compartment 7a around 1995. Like 7a, it is an ancient woodland site. It is situated on a south facing moderate slope north of Clough Dike. The main species are oak, ash and sycamore with a small amount of beech regeneration or coppice. Compartiment 7d is fully stocked and the timber quality is average, but could be improved by cleaning.

## 2.3 Site description

### Access

#### **External**

Compartiment 1 (West Triangle): Access is via agricultural land from a field-gate leading off Gunthwaite Lane to the north-east of the site, circa 130m west of the bridge over the railway. The eastern drystone wall boundary is largely dilapidated, and would provide access to this small compartment.

Compartment 2 (Wilderness): Access from Gunthwaite Lane, close to the western corner of the wood, where Gunthwaite Lane bends sharply. A vehicle-width gate allows access to the wood here. There is also access via the farmyard.

Compartment 3 (Oak Wood): From the intersection of Gunthwaite Lane and Coach Gate Lane, a vehicle-width track runs west, just south of Gunthwaite Hall, and allows access to the northern edge of the wood. A field-gate is located along this edge, close to the eastern end of the wood. A slightly narrower track, still vehicle-width, runs along the western edge of the wood, and leads into a field via a gate, allowing access to the southern edge from agricultural land.

Compartment 4 (Railway West): From the intersection of Gunthwaite Lane and Coach Gate Lane, a vehicle-width track runs west, just south of Gunthwaite Hall. It continues under the railway line, via a short tunnel, and proceeds through the compartment, entering at the north-east corner and exiting via the western side.

Compartment 5 (Railway East): From the intersection of Gunthwaite Lane and Coach Gate Lane, a vehicle-width track runs west, just south of Gunthwaite Hall. It continues towards the railway line, with this compartment being located just before the embankment for the line: Here, the track splits into two, running along both the north-east and southern boundaries of the compartment. At the south-west corner of the site, access is via a field-gate, but this is currently blocked with branches from fallen/felled trees and would require clearing prior to use.

Compartment 6 (Birch Rein): From the intersection of Gunthwaite Lane and Coach Gate Lane, a vehicle-width track runs west, just south of Gunthwaite Hall. It continues towards the railway line, and splits into two just prior to this: The left fork continues down to the compartment, also delineating its north-east boundary. This is well-surfaced and about 5m in width, although the gradient is moderately steep to steep in places.

Compartment 7 (Clough Wood): From the intersection of Gunthwaite Lane and Coach Gate Lane, a vehicle-width track runs west, just south of Gunthwaite Hall. It continues towards the railway line, and splits into two just prior to this: The left fork continues down to the compartment, also delineating its western boundary. There is an un-gated but blocked access point along this boundary. A second possible access point is reached from the track running along the western boundary of compartment 3, and across agricultural land: Keeping close to the eastern field boundary, and continuing to the wood, a vehicle-width gap in the drystone wall here is currently blocked with stock-net fencing, but leads to an old track. A third possible access point is from the southern end of the PROW that exits on to Carr Lane: Here, post and rail fence is present, instead of the usual drystone wall, which could facilitate access to this block of woodland. Much of the remainder of the wood can be accessed from the agricultural land that surrounds much of the site, or possibly from Carr Lane, which runs along the southern boundary in the west for approximately one third of its length. However, this is a narrow lane, and caution would have to be exercised if using it.

#### **Internal**

Compartment 1 (West Triangle): There is no vehicular access present within the wood itself, but being a small compartment, with level terrain, this is not an issue, even with access only via the remains of a drystone wall along the eastern boundary.

Compartment 2 (Wilderness): A wide, well-maintained and surfaced track runs through the wood from the northern access point, keeping close to the western boundary, emerging at Gunthwaite Hall. A further track runs at right-angles from this, at the top of the southern spur, to access the farmyard. The remainder of the wood has no tracked access, so any extraction would have to be over bare ground. Tree spacing is wide enough to permit this but account would have to be taken of existing slopes and the ponds/wet ground.

Compartment 3 (Oak Wood): There is no internal vehicular access present, as the field-gate allows access to the 'Shooting Lodge' shed only, just inside the wood. Any extraction would have to be over bare ground. Tree spacing and the ground conditions would allow this.

Compartment 4 (Railway West): Access is from the track that runs through the compartment, with no boundaries limiting access. However, the terrain is steep to very steep in parts, so caution is required away from this track.

Compartment 5 (Railway East): There is no internal vehicular access is present within the wood itself. Given the small size of this compartment, this should not hinder timber extraction.

Compartment 6 (Birch Rein): There is no internal surfaced vehicular access present. Given that slopes towards the watercourses are very steep in places, extraction would have to be via the track along the north-east boundary in the main. From the eastern tip of the wood, a less-well defined unsurfaced track runs some 70 metres into the south-east arm of the wood, and this could be extended for access within this section, depending on the status of the possible badger sett at its current terminus, which appeared disused at time of survey.

Compartment 7 (Clough Wood): There is very little internal vehicular access present, with the exception of the old unsurfaced track marked as 'path (um)' on the OS map. It runs south-west from the second possible access point along the northern edge of the wood and, keeping north of the watercourse, joins the first access track just north of Clough Bridge. This old track would be suitable for 4WD access with some remedial work. Elsewhere within the wood, some steep to very steep slopes down to Clough Dike, and along the streams and drainage ditches that flow into it, make the terrain hazardous in many places. Much of the access may have to be via the surrounding land, apart from a few small, more level sections.

### **Boundaries**

Compartment 1 (West Triangle): The north-west boundary is drystone wall, in a good state of repair but with two gaps along its length. The eastern boundary is the remains of a drystone wall, with the stone scattered within the wood nearby. The south-west boundary of this triangular compartment is drystone wall, over 2m in height, in mixed condition from good to poor. This is part of the old deer-park, and is a significant landscape feature, as parts of it are still extant around the area.

Compartment 2 (Wilderness): The north-east boundary, adjacent to Gunthwaite Lane, is drystone wall in a good state of repair. Where this turns, and adjacent to the farm-yard along the south-east boundary, a recently-created banking for a slurry-pond in the farm-yard defines the boundary here, and again along the north-eastern side of the southern spur, forming two of the sides of this slurry-pond and varying in height from c. 1.5m to 2m, increasing in height down-slope. The southern boundary consists of barbed wired fencing, in poor condition, a pair of wooden gates across the access track, and post and rail fencing, in reasonable condition, on the western side of them (further north along this access track, at the end of the parking area for the fishing pond, a further field-gate is present, presumably to separate access for the fishermen from access to the farm). The western boundary is drystone wall, varying from reasonable to poor condition, with a pedestrian gate part way along, allowing access to the fishing pond. Where this turns, forming the western spur, the boundary is also drystone walls along both edges, in a reasonable state of repair. The remainder of the north-west boundary, adjacent to Gunthwaite Lane, is drystone wall, in good condition.

Compartment 3 (Oak Wood): The northern boundary consists of drystone wall, varying from reasonable to poor condition, and a field-gate towards the eastern end, allowing access to the 'Shooting Lodge' shed. The eastern boundary is drystone wall in generally

reasonable condition, forming the garden boundary to Gunthwaite House also. The southern boundary is drystone wall in a good state of repair, but with two gaps present towards the eastern end. It is also planted with a hedge behind it, within the wood. The western boundary is drystone wall, in a reasonable state of repair.

Compartment 4 (Railway West): The northern boundary is mixed agricultural, consisting of the remains of drystone wall, post and rail fencing, and old hedgerow. The eastern boundary, abutting the trees along the railway embankment, is 'railway fencing' of post and wire. The southern boundary is mixed agricultural again, also the remains of drystone wall, post and rail fencing, and hedgerow. Where Tanyard Brook runs in, the compartment is contiguous with the adjacent block of woodland, and no boundary is present. The northern boundary of this south-west arm is stock-net fencing, in poor condition. Along the south of the north-west arm, mixed agricultural boundary is once again present, and where Clough Dike flows in, via a natural stone waterfall, a drystone wall in good condition is found either side of the dike.

Compartment 5 (Railway East): The north-east boundary is defined by a drystone wall, in a reasonable state of repair. The southern boundary is a dense holly-hedge, whilst the final boundary of this triangular compartment is contiguous with the trees growing on the railway embankment, and is not defined on the ground.

Compartment 6 (Birch Rein): The north-east boundary is defined by the wide, surfaced track along this edge. Along the southern edge, drystone wall varying from good to poor condition is present, reinforced by post and wire fencing in places, with some remnants of post and rail also present. Along the short south-west boundary, where the stream flows in, sections of poor-condition post and wire plus post and rail fencing are used (just within the woodland here, a section of stock-net and barbed wire has been added, running from the boundary into the wood for several metres). The north-west boundary of this south-western arm is drystone wall in poor condition and this continues along the south-west boundary of the north-western arm, with the addition of some post and wire fencing reinforcing some sections, this being in a reasonable state of repair. The last part, adjoining the bottom of the railway embankment, is drystone wall in a good state of repair, in place of the more common 'railway fencing'.

Compartment 7 (Clough Wood): The northern boundary consists entirely of drystone wall: Approximately the first third is in a poor state of repair, followed by a short section that is taller and in good repair (possibly part of the original deer-proof walling of the parkland). The eastern half of this boundary is the remains of the drystone wall, reinforced with post and wire fencing, also in a poor condition. A very short section towards the eastern tip, sub-compartment 7b, probably not part of the original woodland, is barbed-wire fencing, from the division shown on the OS map to Carr Lane. Along the southern side, the boundary along Carr Lane is drystone wall in good condition, with a short section of post and rail fencing where the PROW leaves the compartment. The remainder, to the west, is the remains of drystone wall, reinforced with post and wire fencing in places. The western boundary is delineated by the access track, with no other boundary being present.

## **Site Characteristics**

### **Elevation**

Heights vary from the more exposed West Triangle (Compartment. 1) in the northwest, at around 220m, falling to 150m at Clough Wood (Compartment. 7) in the south-east, but this fall is not uniform, with the rolling landform creating varying heights.

### **Soils**

The vast majority of the soils are clays. The underlying geology is middle coal measures and lower coal measures, comprising alternating bands of shales and sandstones with frequent coal seams.

**Windthrow Risk**

The majority of the woods consist of broadleaved trees on well drained and fairly sheltered sites. There is little evidence of windthrow, even amongst the two coniferous stands, so windthrow risks are considered to be low.

**Fire Risk**

All of the existing woods are considered to have a low fire risk. This will change when regeneration takes place, as young plantations are more at risk from fire.

**Public Access**

Compartment 1 (West Triangle): No public access within this wood, which is surrounded by agricultural land on all sides.

Compartment 2 (Wilderness): No public access within this wood, but a PROW is close to the northern tip, running south to meet with Gunthwaite Lane adjacent to the wood here.

Compartment 3 (Oak Wood): A PROW (bridleway) runs along the track adjacent to the northern boundary of the wood.

Compartment 4 (Railway West): No public access within this wood.

Compartment 5 (Railway East): A PROW (bridleway) runs along the track adjacent to the southern boundary of the wood.

Compartment 6 (Birch Rein): The broad track adjacent to the north-east boundary of the wood is also a PROW, being a bridleway.

Compartment 7 (Clough Wood): The broad track adjacent to the western boundary of the wood is also a PROW, being a bridleway. A second PROW, a footpath, crosses the wood approximately half way along it, running north to south, and linking Gunthwaite Lane with Carr Lane. It enters in the north via a wooden stile in a poor state of repair, proceeds down some wooden steps in adequate condition, crosses Clough Dike by a recently constructed wooded footbridge, and exits onto Carr Lane via a gap in the post and rail fencing.

**Structures and Buildings**

Compartment 2 (Wilderness): The smaller southern part contains a building and equipment for a small-scale sawmill / firewood production unit. The top of a grain silo is located in the south-east corner. It was once used to shelter pigs that ran in the wood.

Compartment 3 (Oak Wood): There is a 'Shooting Lodge' shed located close to north-east corner of wood, adjacent to access point.

Compartment 6 (Birch Rein): In the north-east, where Clough Dike flows in to the compartment, a substantial stone-built culvert flows under the railway embankment.

Compartment 6/7 (Birch Rein/Clough Wood): Clough Bridge, shown on the OS map, towards the bottom of the north-east boundary, is a very solidly constructed stone bridge, with some dressed stone evident in its construction. The bank of the watercourse is also reinforced with stone here, to prevent erosion under the bridge, both signs of the historic landscape of the wider parkland that all the woods are located within.

## 2.4 Significant hazards, constraints and threats

### **Hazards**

Compartment 4 (Railway West): Some steep to very steep slopes present, both along the stream-sides, and the banking of the northern boundary, which is circa 5m in height in places. Hence, care is needed with access away from the track through the site.

Compartment 6 (Birch Rein): Some very steep slopes present leading down to watercourses, hence appropriate procedures and practices will be required here. Additionally, since the access track is a PROW, due care will have to be taken with regard to users of this.

Compartment 7 (Clough Wood): Some steep to very steep slopes present over much of the site, leading down to Clough Dike, and also along the watercourse which lead into this, particularly the western-most one along the southern boundary, making the terrain hazardous in many places. Hence, much of the access would have to be from the surrounding land, apart from a few small, level sections within the wood.

### **Constraints**

#### **Legal Obligations**

##### **Badgers**

Compartment 6 (Birch Rein): A possible badger sett is located within the south-east arm of the wood, at the end of a track that extends some 70 metres from the main access track forming the north-east boundary. The digging is small and may be a fox earth. It appeared to be disused at the time of survey.

Compartment 7 (Clough Wood): Several badger setts are located within the eastern end of the compartment, and a further one close to the northern boundary, approximately half-way along. All appeared active at the time of survey.

##### **Landscape**

Although much of the area is within a former deer park, it is not a designated landscape. See the paragraph on Archaeology below for further comments.

##### **Nature Conservation**

Badgers are present in compartment 7 and possibly in compartment 6. There is evidence of possible activity in some of the other compartments, e.g. there is what appears to be a badger or fox path passing through compartment 1 from east to west.

All or parts of compartments 6 and 7 are listed as Ancient Woodland Sites.

##### **Archaeology**

Given that the context for all these woods is the former deer-park centred around Gunthwaite Hall, and that many historic features are still extant in the landscape, including sections of the two metre-tall, deer-proof drystone wall, and probably the field systems, tracks and the woods themselves, all work should seek to preserve or enhance the character of this landscape.

Compartment 1 (West Triangle) includes a section of this deer-proof drystone wall, forming the south-west boundary and continuing for about 220 metres to the south-east.

Compartments 6/7 (Birch Rein/Clough Wood): Clough Bridge, shown on the OS map towards the bottom of the north-east boundary, is a very solidly constructed stone bridge, with some dressed stone evident in its construction. The bank of the watercourse is also reinforced with stone here, to prevent erosion under the bridge.

## **Threats**

### **Pests**

Grey squirrels are present but numbers are controlled to a certain extent by the gamekeepers. Roe deer are present in small numbers but not permanently, as they appear to move between woods within the locality. Rabbits and hares are also present but not in large numbers.

### **Diseases**

Disease is insignificant at present. There is some larch on the estate and this is known to be susceptible to *Phytophthora ramorum* (Sudden Oak death). There is no evidence of Red Band Needle Blight on the Corsican Pine. Occasional sycamore on the estate appear to have been diseased a number of years ago, showing die-back and vertical part healed lesions on their trunks. Some have died.

### **Climate Change**

How climate change will influence species selection on restocking sites is still uncertain. As climate change occurs, it may be necessary to make a number of alterations. Literature on the impacts of climate change on species selection will be reviewed on a regular basis.

### **Windthrow Risk**

The majority of the woods consist of broadleaved trees on well drained and fairly sheltered sites. There is little evidence of windthrow, even amongst the two coniferous stands, so windthrow risks are considered to be low.

### **Fire Risk**

All of the existing woods are considered to have a low fire risk. This will change when regeneration takes place, as young plantations are more at risk from fire.

### **Anti-social Behaviour**

No evidence encountered during the survey of woodland.

### 3 Long term vision, management objectives and strategy

#### 3.1 Long term vision

The woodlands are privately owned and as such, a financial return is required to fund other aims. The prioritised aims over the next twenty years are:

High Priority

1. Steady, continual 'non-drastic' management

Medium Priority

2. Sustainable timber production
3. Financial return
4. Game management
5. Landscape maintenance
6. Biodiversity protection

Low Priority

7. Archaeology protection
8. Recreation and Access
9. Community Involvement and Education

The long term vision is to manage the woods on a regular but gradual basis to produce multiple benefits. It is intended that the estate will generate a modest, regular, sustainable income from timber sales, which will contribute to the farm business and fund the other aims. The woods are an important part of a shoot, and management will take this into account.

Overall, management will aim to improve the value and income from the standing crops, whilst placing importance on landscape and biodiversity and taking into account archaeology, recreation and access. The main thrust of the owner's strategy is to ensure the estate is self-financing, whilst supporting other 'non-commercial' benefits.

The owner is committed to management in compliance with Forestry Commission best practice guidelines.

#### 3.2 Management objectives

| No. | Objective   |
|-----|---|
| 1   | Steady continual 'non-drastic' management – To manage the woods on a regular basis without implementing any major changes to the landscape, wildlife or game. |
| 2   | Sustainable timber production - To grow timber on a sustainable basis within the parameters of the other aims.  |
| 3   | Financial return - To maintain a positive cash flow into the future and to secure funds where available to further the above management objectives.           |
| 4   | Game management – To ensure the woodland continues to make a significant contribution to the shoot.   |

|    |  |
|----|--|
| 5  | Landscape maintenance – To maintain the landscape value of the woodland.   |
| 6  | Biodiversity protection - To conserve and protect the value of the estate for nature conservation, and compliance with guidelines for protected fauna present on-site. Woodland containing ASNW and PAWS areas will be managed according to FC Guidelines. |
| 7  | Archaeology protection - To protect and conserve features of archaeological and historical interest.   |
| 8  | Recreation and Access – To keep open and safe any public rights of way that pass through the woodland.   |
| 9  | Community Involvement and Education - To consider any approaches made by community or specialist groups for use of the woods for survey, study or education.   |
| 10 | To manage the woodland estate in compliance with Forestry Commission’s best practice guidelines.   |

### 3.3 Strategy

#### **Specific Strategies Relating to Objectives**

**Objective 1: Steady continual ‘non-drastic’ management – To manage the woods on a regular basis without implementing any major changes to the landscape, wildlife or game.**

##### Strategy

- Felling coupes will not exceed one hectare in area. Group felling will be undertaken in the larger compartments.
- Regeneration and restructuring of the woods will be regular and gradual.

**Objective 2: Sustainable timber production - To grow timber on a sustainable basis within the parameters of the other aims.**

##### Strategy

- Productive species suited to the site will be used at restocking.
- Sites unsuitable for timber will be avoided, for example, poorly drained areas.
- Timber to be produced on a regular sustainable basis, but other objectives will be taken into consideration when harvests are planned.
- To take opportunities to improve access for management.

**Objective 3: Financial return - To maintain a positive cash flow into the future and to secure funds where available to further the above management objectives.**

##### Strategy

- To ensure that management is self-financing, through timber sales.

- Where possible, to be flexible to market conditions when programming silvicultural works.
- To maximise sources of grant aid and investigate and bid for alternative sources of funding where appropriate.

**Objective 4: Game management - To ensure the woodland continues to make a significant contribution to the shoot.**

Strategy

- To work closely with the shoot in order to minimise any disturbance that might be caused by forestry operations.
- To programme forestry operations where possible so they do not conflict with shoot activities.
- To avoid the clear felling of large coupes.
- To retain some areas of understorey: holly, rhododendron, laurel

**Objective 5: Landscape maintenance- To maintain the landscape value of the woodland.**

Strategy

- To minimise the landscape impact of felling and regeneration works, ensuring that wherever possible, the shapes of felling coupes fit the landform.
- To gradually increase species and age-class diversity, ensuring this blends with the landscape.
- To promote native species characteristic of the local area when regenerating the woodland.

**Objective 6: Biodiversity - To conserve and protect the value of the estate for nature conservation. Woodland containing ASNW and PAWS areas will be managed according to FC Guidelines.**

Strategy

- To protect and enhance surviving ancient semi-natural woodlands within the estate. No non-native species will be planted. Management will be in accordance with the FC Forest Practice Guides.
- To gradually restore replanted ancient woodland to ancient semi-natural woodland.
- To retain standing and fallen deadwood where possible (target is 20 cubic metres per hectare split as evenly as possible between standing and fallen timber) and develop areas of over-mature forest, promoting and encouraging associated fungi, invertebrates, hole-nesting birds, and bats.
- To protect legally protected species sensitive to disturbance such as Badger and Bats during all operations, through appropriate management, consultation with key interest groups and in accordance with associated statutes and Forestry Commission Guidelines.
- To control, reduce or remove rhododendron and laurel.

**Objective 7: Archaeology - To protect and conserve features of archaeological and historical interest.**

Strategy

- To protect and to take account of all known archaeological features during management operations, avoiding damage wherever possible.
- To plan and execute all management operations in accordance with the Forestry Commission's "Forests and Archaeology Guidelines".

**Objective 8: Recreation and Access - To keep open and safe any public rights of way that pass through the woodland.**

Strategy

- To maintain public rights of way in an unobstructed condition, safe from dangerous trees.
- To undertake any necessary tree safety works, and to ensure that all access structures that are the responsibility of the estate comply with the appropriate health and safety legislation.
- To take the appropriate action when necessary to reduce vandalism, litter and dumping.

**Objective 9: Community Involvement and Education - To consider any approaches made by community or specialist groups for use of the woods for survey, study or education.**

Strategy

- To consider any applications made by local community or specialist interest groups to have access to the woods for survey, study or education.

**3.4 Woodfuel initiative**

Would you be interested in receiving information on funding opportunities for the purchase of harvesting machinery or wood fuel boilers?

**No**

## 4. Management prescriptions/operations

### 4.1 Silvicultural systems

#### 4.1.1 Harvesting

For management purposes, the 7 compartments have been divided into 12 sub-compartments, see map 1. Thinning and felling proposals have been drawn up for each sub-compartment and are presented in Maps 10a (years 1 to 5), 10b (years 6 to 10), 10c (years 11 to 15) and 10d (years 16 to 20). Details of the sub-compartments to be thinned or felled are shown in Section 7. As felling and replanting proceeds, the total number of sub-compartments will change as sub-compartments are divided or aggregated.

##### Clear Felling and Re-stocking

Over the twenty years of the harvesting plan, it is proposed that 3.2 hectares be clear felled and replanted. Most of this will be undertaken using a group felling system. Group fellings will be around 0.5 hectares each and will not exceed 0.75 hectares. Where possible, group fellings will centre on existing natural regeneration but planting will be undertaken as required to ensure complete re-establishment. Felling areas will be designed where possible to meet the wider objectives for each wood, within the practicalities of management. The felling pattern will set up a structure within which replanting can take place and which will enable most of the other objectives to be met over a period of time. After felling, some dead wood will be left on site. Restocked coupes will be at least 2 metres in height before an adjoining area is felled. Sub-compartment 2b, the Corsican pine compartment in The Wilderness, will be clear felled rather than group felled because of its age and in order to avoid any possibility of windthrow.

##### Thinning

Any thinning undertaken will be selective thinning. Thinning intensity will depend on the stocking density of each stand, the state of the crop, ground conditions and the windblow risk. The aim is to improve the quality of the crop with each thinning, so trees selected for thinning will begin with those that are:

- Diseased
- Dead
- Dying
- Damaged
- Deformed
- Dominated

Non-native trees will be targeted on Ancient Woodland Sites or Plantations on Ancient Woodland Sites.

It is proposed that 5.5 hectares be thinned within the first five years of the plan and 1.1 hectares in the second phase, 1.9 in the third phase and 4.2 in the fourth phase. Some stands will be thinned more than once during the twenty year life of the harvesting plan. Thinning cycles will vary depending on growth rates and will probably fall between seven and ten years. Thinning years may be adjusted to accommodate markets and marketing.

#### 4.1.2 Phased felling and restructuring of plantations

Much of the woodland within the estate is mature or approaching maturity and significant areas are on AWS/PAWS. In general, these areas will be restructured through the use of group-felling (around 0.5ha but no more than 0.75ha coupes). Where appropriate, coupes will be centred on any advance regeneration present. Locally native species will be planted where there is no natural regeneration. This group felling system, designed to minimise impact on the landscape, combined with the use of artificial and where appropriate natural regeneration, will be the primary method of managing most of the woodland areas. However, where the area of the sub-compartment is small, complete clearfells are proposed, for example sub-compartment 2b. This is a mature Corsican pine stand where clear felling is recommended because of its age and in order to avoid the possibility of windthrow. This sub-compartment is surrounded on three sides by sub-compartment 2a, and on the fourth side by a farmstead. Impact on the landscape will therefore be minimal. Some sites will be managed as long term retention with minimum intervention. A small proportion of trees will be retained and left to reach natural senescence. Considering the large-scale, increasing maturity and often even-agedness of most of the woods, the above approach will gradually produce woodland areas characterised by stands of trees in a number of stages of maturity, providing general benefits for wildlife, and a more attractive and robust landscape.

Thinning will undertaken if stocking requires it and it is thought the growth of the stand will benefit and windblow problems will not be introduced. Resources will mainly be focused on improving the timber quality and promoting advance regeneration.

The restructuring programme for the estate will follow the Forestry Commission's Forests and Water guidelines. As such, stream-sides will be gradually opened up through felling and thinning works. Any wet flushes and bogs will not be replanted with trees if they form part of a felling coupe and within these areas scrub and broadleaves will be allowed to develop as appropriate, to compliment the wildlife value of these open wet areas.

At the end of the twenty years of this harvesting plan, a major restructuring of the estate will be well advanced. Throughout the course of this twenty year harvesting plan, around 24% of the woodland area will have been felled and replanted, and 74% thinned. (Some will have been thinned more than once; others will have been thinned and then felled.)

#### 4.1.3 Establishment, restocking and regeneration

In broad terms, much of the existing woodland will be restocked with productive native broadleaf species, appropriate to the site conditions (mainly oak and ash, with a small proportion of other suitable native broadleaves), although suitable natural regeneration of both native and non-native broadleaves such as beech will be accepted.

All restocking will follow the Forestry Commission's Forests and Water guidelines.

Phase 1 replanting proposals are set out in Map 11. The map shows the main species to be replanted and areas of open ground. Further details of phase 1 replanting are shown in Section 7 and Table B. The phase 2, 3 and 4 restocking areas equate to the felling areas shown in maps 10b to 10d.

##### **Detailed restocking prescription**

Ground preparation

This will generally take the form of limited ground disturbance during felling operations, to promote a good seedbed for natural regeneration. Existing

|                                     |   |
|-------------------------------------|---|
|                                     | natural regeneration will be protected. Stream sides, wet areas, existing open space and areas immediately adjoining PROW will not be planted-up  |
| Species mixtures                    | Locally native species appropriate to the area i.e. sessile oak and ash, with small proportions of silver birch, rowan, hazel, hawthorn and wild cherry.  |
| Initial spacing and stocking        | Restocking will be achieved primarily through replanting, although any advance natural regeneration will be accepted. Where there is no suitable advance regeneration present, replanting will be at 3m x 3m spacing/1100 trees per hectare.  |
| Spacing and Stocking after 10 years | At least 1100/ha in areas restocked through natural regeneration or replanting.   |
| Protection and maintenance          | In restocked areas the young trees will be protected by tree guards/shelters. New trees will be protected from weed competition through chemical weed control for at least the first three years after establishment. A one metre diameter weed-free area will be maintained. Beating-up will be undertaken as required following annual assessments. |

## 4.2 New planting

There are no proposals to undertake new planting.

## 4.3 Other operations

The current road, ride and timber stacking system on the estate is limited in places. In the medium to long term, this network will have to be developed / upgraded to facilitate the removal of greater volumes of timber. Development and upgrading will depend on the securing of the necessary financial resources. Any road construction work will be done with the relevant permissions of the local planning authority where required. Roads and tracks will be designed in a manner that minimises their environmental impact.

## 4.4 Protection and maintenance

### 4.4.1 Pest and disease management

All pest and disease operations on sites will be undertaken in line with the following aims.

- To minimise the use of chemical pesticides.
- To take account of the importance of safeguarding the values of sites with special biodiversity attributes when considering methods of control
- To ensure the latest published advice is consulted and its appropriate application takes place.

The vast majority of the estate woods are on soils that are generally quite fertile, though

acidic, and are often dominated by thick bramble prior to clear felling. Significant gaps in the woodland canopy also tend to be dominated by bramble or dense grassy vegetation.

The approach to restocking is to use individual tree guards/shelters on newly planted trees. Chemical weeding with Glyphosate for a period of 3-4 years will be the norm, to promote a one metre diameter weed free area around the young trees (i.e. spot sprayed) through the growing season. In most cases, a spring (April-May) and summer (June-July) application will be applied, although in a small number of sites with exceptional weed issues, three treatments may be used. As such, treatments are timed to maximise their effectiveness of competing weed vegetation.

The Forestry Commission Field Book 8: The Use of Herbicides in the Forest (1995) will be used to inform herbicide choice and its application. Glyphosate has been chosen for use at the restock sites because it controls the weed vegetation typical of the area. All applications will be undertaken in accordance with Field Book 8.

For all pesticide use, a written pesticide application record will be produced by the contractor and copy passed to the owner.

At present, none of the woods has had any significant problems with deer damage.

If fences are used, they shall be designed to minimise any impact on access, landscape, wildlife and archaeology.

#### 4.4.2 Fire plan

Due to the small nature of the estate, there is no fire plan. A list of who to contact in case of fire will be prepared and circulated to all neighbouring landowners and gamekeepers. It will also be given to any forest contractors working on the estate. This contact data will be reviewed annually.

#### 4.4.3 Waste disposal and pollution

The disposal of waste will be done to minimise any negative environmental impacts. Examples of this include;

- chemical containers being returned to suppliers when possible or disposed of as per the label recommendations and guidelines;
- plant bags being re-used for other purposes;
- tree shelters being re-used whenever possible;
- use of biodegradable lubricants wherever possible.

Where there is a risk of pollution from any operations (e.g. chemical use, fuel/oils etc), the hazard will be identified in the operational risk assessment and controls such as the carrying of spillage kits and adhering to Forest Water Guidelines will be put in place.

#### 4.4.4 Protection from unauthorised activities

Apart from the occasional minor incidents, there are very few unauthorised activities within the woodland. If there are incidents of fly-tipping or abandoned cars, the waste will be removed to a landfill site or recycling facility by a registered waste carrier.

#### 4.4.5 Protection of other identified services and values (4.1.1)

##### Water

The Forestry Commission's Forests and Water guidelines will be applied management implementation.

### 4.5 Game management

The shooting is let out on a lease and the game keeping is the responsibility of the leaseholder. The shooting is undertaken within the law, ensuring that all relevant codes of practice are adhered to and that all gun licences and insurances are up to date.

Rhododendron and laurel are often to be found on woodland managed for pheasants and other game birds, and such is the case with this estate. When group felling takes place, most of the rhododendron and laurel within that coupe will be removed and any areas of dense holly will be thinned out.

In those woods where game is a significant part of their management, consideration will be given to restricting felling and thinning to between February and July.

### 4.6 Protecting and enhancing landscape, biodiversity and special features

#### 4.6.1 Management of designated areas

Management of woodland within designated areas will only be undertaken after consultation with the appropriate body.

#### 4.6.2 Measures to enhance biodiversity and other special features (2.1.1k and 6.1.1)

##### Biodiversity

Management of areas with any protected bird interest will be in accordance with the Forestry Commission's Bulletins and Guidelines such as Bulletin 118 Ecology and Conservation of Raptors in Forests.

The thinning and restructuring proposed by this plan will improve the biodiversity of the woodland estate by increasing the amount of light on the forest floor and producing woodland of more varied age structure, with all of the variation in habitat and edge effect that that implies.

The Estate will work with South Yorkshire Badger Group and other qualified badger experts when dealing with badger setts on the estate, or if any operations are proposed that are liable to impinge on badgers or their setts.

This plan has been developed with reference to the UK and local Biodiversity Action Plans, and has taken on-board associated management implications.

A small proportion of trees and stands will be allowed to develop to over-maturity and natural senescence to provide greater habitat for associated species and increase site amenity. It is also proposed that during thinning and felling operations, a certain amount of dead wood will be retained (target is 20 cubic metres per hectare split as evenly as

possible between standing and fallen timber).

#### 4.6.3 Special measures for ASNW and SNW

All Ancient Semi Natural Woods will be managed in accordance with the relevant FC Practice Guides for semi-natural woods.

The following management recommendations are made:

- encourage the woodland on such sites develop a more uneven age structure throughout
- manage the woodland on such sites on a group felling rather than clear felling basis
- retention of some deadwood on the floor and as standing trees
- retention of shade in vicinity of cliffs and hollow-ways to maintain damp, enclosed conditions
- select suitable trees for long term retention as veterans
- avoid damage to wet areas and springs
- avoid crossing bluebell or other prominent wild flower areas during spring & summer
- sycamore and other invasive non-native species will be controlled where it is likely to become dominant if not removed

#### 4.6.4. Special measures for PAWS

All PAWS areas will be managed in accordance with the relevant FC Practice Guide - Restoration of native woodland on ancient woodland sites. This management work will progressively improve the biodiversity, environmental and cultural values of these sites. In particular, the semi-natural character of the wood will be restored through gradual removal of non-native species, improved woodland structure and composition, increased light levels favouring ground flora and use of natural regeneration of native species where possible.

#### 4.6.5 Measures to mitigate impacts on landscape and neighbouring land (3.1.2)

The use of a group felling throughout the period of this plan will minimise the impact on the landscape created by the harvesting programmes. Properly planned restocking will improve the network of open ground around streams and wet areas, and the increase in age class diversity created by the felling programme will ultimately produce a rich and diverse landscape with multi-purpose benefits.

## 4.7 Management of social and cultural values

### 4.7.1 Archaeology and sites of cultural interest

All archaeological features are marked on map 8. Caution will be taken in order to safeguard these features during works. This may involve site visits with the South Yorkshire Archaeology Service as necessary before work commences. The Forestry Commission's Guidelines on Forestry and Archaeology will be followed at all times.

#### 4.7.2 Public access and impacts on local people

There is a network of public rights of way throughout the farm. The network is signed and maintained by the Local Authority. The location of these paths is shown on map 7. The public rights of way on the estate are used for a wide range of recreational activities; walking, jogging, horse riding, nature watching & cycling. Free access throughout the woods is restricted by the management of the shoot. The Estate will mitigate the risks to public health and safety associated with woodland operations.

## 5. Consultation

| Organisation/individual | Date received | Comment | Response/action |
|-------------------------|---------------|---------|-----------------|
|                         |               |         |                 |
|                         |               |         |                 |
|                         |               |         |                 |

## 6. Monitoring plan summary

| Objective number, issue or UKWAS Requirement | Indicator   | Method of assessment  | Monitoring period                               | Responsibility        | How will information be used?  |
|--|---|---|---|-----------------------|--|
| 2.Sustainable timber production              | Volumes harvested   | Contracts and weigh tickets                                     | Annually and at plan renewal                    | Owner                 | Feedback into review and development of harvesting and restocking programme. |
| 3.Financial return                           | Accounts  | Budget reviews  | Annually and at plan renewal                    | Owner                 | Feedback into review and development of annual work programme and budgets    |
| 4.Game management                            | Number of birds reared  | End of season total shoot                                       | Annually  | Gamekeeper            | Feedback into management plan  |
| 5.Landscape maintenance                      | Impact on the landscape   | Fixed point photography from prominent viewing points           | Every ten years                                 | Owner                 | Feedback into management plan.   |
| 6.Biodiversity protection                    | Recruited dead wood and veteran trees. Increase in area of native broadleaves | Report on changes   | Every five years.                               | Owner                 | Feedback into management plan review   |
| 7.Archaeology protection                     | Condition of historical sites.  | Visual inspection and photographs                               | Every five years and after operations in woods. | Owner                 | Feedback into discussions SY Archaeology Service on site management.         |
| 8.Recreation and Access                      | Public rights of way safe from dangerous trees and forestry operations        | Walkover survey of footpaths and inspection for dangerous trees | Annually or when forestry operations underway.  | Owner and contractors | Feedback into plan review and development of annual work programme.          |
| 9.Community Involvement and Education        | Requests for study opportunities  | Record of requests  | Every five years                                | Owner                 | Feedback into management plan review   |

## 7 Work programmes

### 7.1 Short-term work programme (01/10/2011 to 30/09/2016)

| Compartment or area | Activity  | Year |   |   |   |   |
|---------------------|---|------|---|---|---|---|
|                     |   | 1    | 2 | 3 | 4 | 5 |
| All                 | Regular inspections to control any litter, illegal tipping or dumping.  | ✓    | ✓ | ✓ | ✓ | ✓ |
| 3, 6, 7             | Annual inspections to remove dangerous trees or branches adjacent public rights of way.   | ✓    | ✓ | ✓ | ✓ | ✓ |
| All                 | Fixed point photography from prominent viewing points every ten years to record landscape   | ✓    |   |   |   |   |
| All                 | Visual inspection and photographs of any historical features every five years   | ✓    |   |   |   |   |
| 2a, 3               | Selective thinning. Leave any dead standing trees and some dead wood on the ground.   |      | ✓ |   |   |   |
| 2b, 7e              | Apply for English Woodland Grant Scheme Woodland Regeneration Grant   | ✓    |   |   |   |   |
| 2b                  | Clear fell the Corsican pine. Leave some dead wood on site.   |      | ✓ |   |   |   |
| 2b                  | Replant with native broadleaves   |      | ✓ |   |   |   |
| 2b                  | Control weeds and beat up (replace planting failures) as required   |      | ✓ | ✓ | ✓ | ✓ |
| 7                   | Apply for English Woodland Grant Scheme Woodland Improvement Grant to create access track   |      | ✓ |   |   |   |
| 7                   | Access track improvements   |      | ✓ |   |   |   |
| 1, 5 and part of 7a | Selective thinning. Leave any dead standing trees and some dead wood on the ground.   |      |   | ✓ |   |   |
| 7e                  | Small group felling around any existing natural regeneration leaving some dead wood on site. Thin out holly and rhododendron if required. |      |   | ✓ |   |   |
| 7e                  | Replant with native broadleaves. Leave some open ground adjacent the stream.  |      |   | ✓ |   |   |
| 7e                  | Control weeds and beat up (replace planting failures) as required   |      |   | ✓ | ✓ | ✓ |

### 7.2 Outline long-term work programme (01/10/2016 to 30/09/2031)

| Compartment or area | Activity  | Year |       |       |
|---------------------|---|------|-------|-------|
|                     |   | 6-10 | 11-15 | 16-20 |
| All                 | Regular inspections to control any litter, illegal tipping or dumping.      | ✓    | ✓     | ✓     |
| 3, 6, 7             | Annual inspections to remove dangerous trees adjacent public rights of way. | ✓    | ✓     | ✓     |

|                          |  |   |   |   |
|--------------------------|--|---|---|---|
| All                      | Fixed point photography from prominent viewing points every 10 years to record landscape   |   | ✓ |   |
| All                      | Visual inspection and photographs of any historical features every five years  | ✓ | ✓ | ✓ |
| 6b, 3b, 7f, 7b           | Apply for English Woodland Grant Scheme Woodland Regeneration Grant prior to any felling and replanting  | ✓ | ✓ | ✓ |
| 7c and 7d                | Cleaning and selective thinning to waste.  | ✓ |   |   |
| 6a                       | Selective thinning. Leave any dead standing trees and some on the ground.  | ✓ |   |   |
| 6b                       | Clear fell the larch. Leave some dead wood on site. Check for badger setts before started and protect if found. Thin out holly and rhododendron if required. | ✓ |   |   |
| 6b                       | Replant with native broadleaves. Leave some open ground adjacent the stream.   | ✓ |   |   |
| 6b                       | Control weeds and beat up (replace planting failures) as required  | ✓ |   |   |
| 1, 2a, 3a & 5            | Selective thinning. Leave any dead standing trees and some on the ground.  |   | ✓ |   |
| 3b                       | Small group felling around existing natural regeneration leaving some dead wood on site. Thin out holly and rhododendron if required.                        |   | ✓ |   |
| 3b                       | Replant with native broadleaves where not enough existing natural regeneration   |   | ✓ |   |
| 3b                       | Control weeds and beat up (replace planting failures) as required  |   | ✓ |   |
| 6a, 7a (part), 7c and 7d | Selective thinning. Leave any dead standing trees and some on the ground. Protect badger setts in 7a from interference.                                      |   |   | ✓ |
| 7f                       | Small group felling around existing natural regeneration leaving some dead wood on site. Thin out holly and rhododendron if required.                        |   |   | ✓ |
| 7b                       | Partial clear fell, removing scrub and hawthorn but leaving oak and other productive native broadleaves.   |   |   | ✓ |
| 7f and 7b                | Replant with native broadleaves where not enough existing natural regeneration. Leave some open ground adjacent the stream.                                  |   |   | ✓ |

|           |   |  |  |   |
|-----------|---|--|--|---|
| 7f and 7b | Control weeds and beat up (replace planting failures) as required |  |  | ✓ |
|-----------|---|--|--|---|

## 8. Costings (2.2.1)

Outline projected costs and income over plan period. Please read guidance note for further information.

The main thrust of this plan is to ensure that work is self-financing, whilst actively recognising other site interests, such as the shoot, landscape and biodiversity. Funding for the plan's work programme will be met by a combination income from timber sales from agreed and approved silvicultural operations and entrance of the woodland into the Forestry Commission's English Woodland Grant Scheme and anticipated grants such as Woodland Improvement Grant and Woodland Regeneration Grant. It is acknowledged that felling and thinning plans need to be flexible to the market place, and this will be the approach taken within the limits of the EWGS approval regulations, and the constraints of practical management i.e. uncontrollable factors such as windthrow.

## 9. Maps

List all maps here and append to plan.

| Map No./Title | Description  |
|---------------|--|
| 1             | Compartment and sub-compartment boundaries.                      |
| 2             | Tree Preservation Orders and BMBC Natural History Sites          |
| 3             | Ancient Woodland Sites and Plantations on Ancient Woodland Sites |
| 4             | Location of Notable Species                                      |
| 5             | Open ground in Compartment 4, Railway West                       |
| 6             | Water courses, ponds and drains                                  |
| 7             | Public highways and public rights of way                         |
| 8             | Approximate boundary of the former deer park                     |
| 9             | Operational access routes  |
| 10a           | Phase 1 Harvesting Programme                                     |
| 10b           | Phase 2 Harvesting Programme                                     |
| 10c           | Phase 3 Harvesting Programme                                     |
| 10d           | Phase 4 Harvesting Programme                                     |
| 11            | Phase 1 Regeneration Programme                                   |

## 10 Thinning, felling and restocking proposals

**Applicants seeking funding through the wood fuel initiative** for harvesting machinery or wood fuel boilers must indicate the total volume that is to be thinned and felled during the period of this plan, **by completing Table A.**

This section **should not be completed** for any other applications.

All applicants **must** complete **Table B.** where harvesting work is to be undertaken.

**Table A.**

| Species            | Total estimated volume to be harvested during plan period (m <sup>3</sup> ) |
|--------------------|---|
| <b>Broadleaves</b> |   |
| <b>Conifers</b>    |   |

Appendix A – Species Recorded Within the Vicinity of Gunthwaite

| Common Name        | Scientific Name                        | Location (Site) Name  | Date       |
|--------------------|--|-----------------------|------------|
| <b>MAMMALS</b>     |  |                       |            |
| Water Vole         | <i>Arvicola terrestris</i>             | Gunthwaite Dam        | 20/04/1982 |
| Bank Vole          | <i>Clethrionomys glareolus</i>         | Gunthwaite            | 11/09/1983 |
| Brown Hare         | <i>Lepus europaeus</i>                 | Gunthwaite            | 18/04/1982 |
| Badger             | <i>Meles meles</i>                     | Gunthwaite            | 19/02/1988 |
| House Mouse        | <i>Mus musculus</i>                    | Farmhouse, Gunthwaite | 14/11/1982 |
| Brown Rat          | <i>Rattus norvegicus</i>               | Ronscliffe wood       | 26/02/1983 |
| Mole               | <i>Talpa europaea</i>                  | Gunthwaite            | 15/03/1980 |
| Fox                | <i>Vulpes vulpes</i>                   | Gunthwaite            | 15/03/1980 |
| <b>BIRDS</b>       |  |                       |            |
| Sparrowhawk        | <i>Accipiter nisus</i>                 | Gunthwaite Bridge     | 12/01/1995 |
| Long-Tailed Tit    | <i>Aegithalos caudatus</i>             | SE20N-4               | 10/05/2007 |
| Skylark            | <i>Alauda arvensis</i>                 | SE20N-4               | 10/05/2007 |
| Kingfisher         | <i>Alcedo atthis</i>                   | Gunthwaite Bridge     | 15/08/1996 |
| Mallard            | <i>Anas platyrhynchos</i>              | Gunthwaite Dam        | 22/10/1996 |
| Meadow Pipit       | <i>Anthus pratensis</i>                | SE20N-4               | 10/05/2007 |
| Swift              | <i>Apus apus</i>                       | Gunthwaite CP         | 02/06/1996 |
| Grey Heron         | <i>Ardea cinerea</i>                   | Gunthwaite Dam        | 19/10/1995 |
| Tufted Duck        | <i>Aythya fuligula</i>                 | Gunthwaite Dam        | 22/04/1996 |
| Goldfinch          | <i>Carduelis carduelis</i>             | SE20I-3/SE20N-4       | 05/05/2008 |
| Greenfinch         | <i>Carduelis chloris</i>               | SE20N-4               | 10/05/2007 |
| Treecreeper        | <i>Certhia familiaris</i>              | Gunthwaite CP         | 22/04/1996 |
| Woodpigeon         | <i>Columba palumbus</i>                | SE20I-3               | 08/06/2008 |
| Carrion Crow       | <i>Corvus corone subsp. corone</i>     | SE20I-3               | 05/05/2008 |
| Rook               | <i>Corvus frugilegus</i>               | SE20I-3               | 08/06/2008 |
| Mute Swan          | <i>Cygnus olor</i>                     | Gunthwaite Dam        | 22/10/1996 |
| House Martin       | <i>Delichon urbica</i>                 | SE20N-4               | 10/05/2007 |
| Yellowhammer       | <i>Emberiza citrinella</i>             | Gunthwaite            | 24/08/2008 |
| Robin              | <i>Erithacus rubecula</i>              | SE20I-3               | 24/08/2008 |
| Chaffinch          | <i>Fringilla coelebs</i>               | SE20I-3               | 24/08/2008 |
| Coot               | <i>Fulica atra</i>                     | Gunthwaite Dam        | 22/10/1996 |
| Moorhen            | <i>Gallinula chloropus</i>             | Gunthwaite Dam        | 22/10/1996 |
| Jay                | <i>Garrulus glandarius</i>             | SE20N-4               | 10/05/2007 |
| Swallow            | <i>Hirundo rustica</i>                 | SE20I-3               | 05/05/2008 |
| Pied Wagtail       | <i>Motacilla alba subsp. yarrellii</i> | SE20I-3               | 05/05/2008 |
| Spotted Flycatcher | <i>Muscicapa striata</i>               | Gunthwaite CP         | 10/08/1995 |
| Curlew             | <i>Numenius arquata</i>                | Gunthwaite CP         | 02/06/1996 |
| Coal Tit           | <i>Parus ater</i>                      | SE20N-4               | 10/05/2007 |
| Blue Tit           | <i>Parus caeruleus</i>                 | SE20I-3               | 24/08/2008 |
| Great Tit          | <i>Parus major</i>                     | SE20I-3               | 24/08/2008 |
| House Sparrow      | <i>Passer domesticus</i>               | Gunthwaite Dam        | 13/04/2007 |
| Tree Sparrow       | <i>Passer montanus</i>                 | SE20N-4               | 19/07/2009 |
| Chiffchaff         | <i>Phylloscopus collybita</i>          | SE20I-3               | 24/08/2008 |
| Willow Warbler     | <i>Phylloscopus trochilus</i>          | SE20N-4               | 10/05/2007 |
| Magpie             | <i>Pica pica</i>                       | SE20I-3               | 24/08/2008 |
| Green Woodpecker   | <i>Picus viridis</i>                   | SE20I-3               | 24/08/2008 |
| Dunnock            | <i>Prunella modularis</i>              | SE20I-3               | 08/06/2008 |
| Bullfinch          | <i>Pyrrhula pyrrhula</i>               | SE20N-4               | 10/05/2007 |
| Collared Dove      | <i>Streptopelia decaocto</i>           | SE20N-4               | 10/05/2007 |

|                                    |                                  |                                      |            |
|------------------------------------|----------------------------------|--------------------------------------|------------|
| Starling                           | <i>Sturnus vulgaris</i>          | SE20I-3                              | 24/08/2008 |
| Blackcap                           | <i>Sylvia atricapilla</i>        | SE20N-4                              | 10/05/2007 |
| Little Grebe                       | <i>Tachybaptus ruficollis</i>    | Gunthwaite Dam                       | 22/10/1996 |
| Wren                               | <i>Troglodytes troglodytes</i>   | SE20I-3                              | 24/08/2008 |
| Blackbird                          | <i>Turdus merula</i>             | SE20I-3                              | 24/08/2008 |
| Fieldfare                          | <i>Turdus pilaris</i>            | Gunthwaite, Cat Hill & Ingbirchworth | 25/01/1996 |
| Mistle Thrush                      | <i>Turdus viscivorus</i>         | SE20N-4                              | 10/05/2007 |
| Lapwing                            | <i>Vanellus vanellus</i>         | Broad Oak                            | 13/04/2007 |
|                                    |                                  |                                      |            |
| <b>CRUSTACEANS</b>                 |                                  |                                      |            |
| Water hog lice/slaters             | <i>Asellus aquaticus</i>         | Gunthwaite - woods and pond          | 13/03/1982 |
| Freshwater Crayfish                | <i>Austropotamobius pallipes</i> | Gunthwaite - woods and pond          | 13/03/1982 |
| Gammarus pulex                     | <i>Gammarus pulex</i>            | Gunthwaite - woods and pond          | 13/03/1982 |
| Oniscus asellus                    | <i>Oniscus asellus</i>           | Gunthwaite - woods and pond          | 13/03/1982 |
| Porcellio scaber                   | <i>Porcellio scaber</i>          | Gunthwaite - woods and pond          | 13/03/1982 |
| Trichoniscus pusillus              | <i>Trichoniscus pusillus</i>     | Gunthwaite - woods and pond          | 13/03/1982 |
|                                    |                                  |                                      |            |
| <b>MOLLUSCS</b>                    |                                  |                                      |            |
| Hedgehog Slug                      | <i>Arion intermedius</i>         | Gunthwaite - woods and pond          | 13/03/1982 |
| Garlic Snail                       | <i>Oxychilus alliarius</i>       | Gunthwaite - woods and pond          | 13/03/1982 |
|                                    |                                  |                                      |            |
| <b>INSECTS</b>                     |                                  |                                      |            |
| Agonum assimile (beetle)           | <i>Agonum assimile</i>           | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Aloconota gregaria (beetle)        | <i>Aloconota gregaria</i>        | Gunthwaite Dam                       | 26/10/1986 |
| Amischa analis (beetle)            | <i>Amischa analis</i>            | Clough Wood Gunthwaite NHS           | 06/04/1986 |
| Anotylus rugosus (beetle)          | <i>Anotylus rugosus</i>          | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Anthobium atrocephalum (beetle)    | <i>Anthobium atrocephalum</i>    | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Anthobium unicolor (beetle)        | <i>Anthobium unicolor</i>        | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Aridius nodifer (beetle)           | <i>Aridius nodifer</i>           | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Atheta sterrima (beetle)           | <i>Atheta sterrima</i>           | Gunthwaite Dam                       | 26/10/1986 |
| Atheta atramentaria (beetle)       | <i>Atheta atramentaria</i>       | Gunthwaite Dam                       | 26/10/1986 |
| Atheta crassicornis (beetle)       | <i>Atheta crassicornis</i>       | Clough Wood Gunthwaite NHS           | 31/03/1991 |
| Atheta fungi (beetle)              | <i>Atheta fungi</i>              | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Bembidion lampros (beetle)         | <i>Bembidion lampros</i>         | Clough Wood Gunthwaite NHS           | 06/04/1986 |
| Bembidion quadrimaculatum (beetle) | <i>Bembidion quadrimaculatum</i> | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Callicerus obscurus (beetle)       | <i>Callicerus obscurus</i>       | Clough Wood Gunthwaite NHS           | 31/03/1991 |
| Cerylon ferrugineum (beetle)       | <i>Cerylon ferrugineum</i>       | Clough Wood Gunthwaite NHS           | 06/04/1986 |
| Cheilosia proxima (fly)            | <i>Cheilosia proxima</i>         | Clough Wood Gunthwaite NHS           | 23/08/1984 |
| Chrysogaster chalybeata (fly)      | <i>Chrysogaster chalybeata</i>   | Clough Wood Gunthwaite NHS           | 01/01/1984 |
| Cryptophagus scanicus (beetle)     | <i>Cryptophagus scanicus</i>     | Gunthwaite Dam                       | 26/10/1986 |
| Dropephylla vilis (beetle)         | <i>Dropephylla vilis</i>         | Clough Wood Gunthwaite NHS           | 06/04/1986 |
| Epuraea melanocephala (beetle)     | <i>Epuraea melanocephala</i>     | Clough Wood Gunthwaite NHS           | 31/03/1991 |
| Gabrius trossulus (beetle)         | <i>Gabrius trossulus</i>         | Clough Wood Gunthwaite NHS           | 06/04/1986 |
| Geostiba circellaris (beetle)      | <i>Geostiba circellaris</i>      | Clough Wood Gunthwaite NHS           | 06/04/1986 |
| Hydromya dorsalis (fly)            | <i>Hydromya dorsalis</i>         | Gunthwaite Dam                       | 15/05/1982 |
| Ischnoglossa prolixa (beetle)      | <i>Ischnoglossa prolixa</i>      | Clough Wood Gunthwaite NHS           | 06/04/1986 |
| Leptusa fumida (beetle)            | <i>Leptusa fumida</i>            | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Lesteva heeri (beetle)             | <i>Lesteva heeri</i>             | Clough Wood Gunthwaite NHS           | 12/01/1989 |
| Lesteva longoelytrata (beetle)     | <i>Lesteva longoelytrata</i>     | Gunthwaite Dam                       | 26/10/1986 |
| Melangyna umbellatarum (fly)       | <i>Melangyna umbellatarum</i>    | Clough Wood Gunthwaite NHS           | 23/08/1984 |
| Molophilus pusillus (fly)          | <i>Molophilus pusillus</i>       | Clough Wood Gunthwaite NHS           | 01/10/1997 |
| Notiophilus biguttatus (beetle)    | <i>Notiophilus biguttatus</i>    | Gunthwaite Dam                       | 26/10/1986 |
| Othius punctulatus (beetle)        | <i>Othius punctulatus</i>        | Clough Wood Gunthwaite NHS           | 12/01/1989 |

|  |                               |                             |            |
|--|-------------------------------|-----------------------------|------------|
| Oxyptoda elongatula (beetle)           | Oxyptoda elongatula           | Clough Wood Gunthwaite NHS  | 06/04/1986 |
| Philonthus decorus (beetle)            | Philonthus decorus            | Clough Wood Gunthwaite NHS  | 06/04/1986 |
| Holly Leaf Gall Fly                    | Phytomyza ilicis              | Gunthwaite - woods and pond | 13/03/1982 |
| Green-Veined White Butterfly           | Pieris napi                   | Gunthwaite - woods and pond | 13/03/1982 |
| Quedius mesomelinus (beetle)           | Quedius mesomelinus           | Clough Wood Gunthwaite NHS  | 06/04/1986 |
| Rhizophagus dispar (beetle)            | Rhizophagus dispar            | Clough Wood Gunthwaite NHS  | 12/01/1989 |
| Beech Leaf Miner (beetle)              | Rhynchaenus fagi              | Clough Wood Gunthwaite NHS  | 12/01/1989 |
| Sericomyia lappona (fly)               | Sericomyia lappona            | Clough Wood Gunthwaite NHS  | 12/06/1985 |
| Stenus brunripes (beetle)              | Stenus brunripes              | Clough Wood Gunthwaite NHS  | 06/04/1986 |
| Syntomium aeneum (beetle)              | Syntomium aeneum              | Clough Wood Gunthwaite NHS  | 12/01/1989 |
| Tachinus corticinus (beetle)           | Tachinus corticinus           | Clough Wood Gunthwaite NHS  | 12/01/1989 |
| Tachinus signatus (beetle)             | Tachinus signatus             | Clough Wood Gunthwaite NHS  | 12/01/1989 |
| Tachyporus chrysomelinus agg. (beetle) | Tachyporus chrysomelinus agg. | Clough Wood Gunthwaite NHS  | 06/04/1986 |
| Tachyporus hypnorum (beetle)           | Tachyporus hypnorum           | Gunthwaite Dam              | 26/10/1986 |
| Tachyporus nitidulus (beetle)          | Tachyporus nitidulus          | Clough Wood Gunthwaite NHS  | 12/01/1989 |
| Tachyporus obtusus (beetle)            | Tachyporus obtusus            | Clough Wood Gunthwaite NHS  | 12/01/1989 |
| Thaumastoptera calceata (fly)          | Thaumastoptera calceata       | Clough Wood Gunthwaite NHS  | 06/07/1997 |
| Tipula flavolineata (fly)              | Tipula flavolineata           | Clough Wood Gunthwaite NHS  | 22/05/1998 |
| Triplax aenea (beetle)                 | Triplax aenea                 | Clough Wood Gunthwaite NHS  | 31/03/1991 |
| Tychus niger (beetle)                  | Tychus niger                  | Clough Wood Gunthwaite NHS  | 31/03/1991 |
|  |                               |                             |            |
| <b>ARTHROPODS</b>                      |                               |                             |            |
| Brachygeophilus truncorum (centipede)  | Brachygeophilus truncorum     | Gunthwaite - woods and pond | 13/03/1982 |
| Blunt-tailed Snake Millipede           | Cylindroiulus punctatus       | Gunthwaite - woods and pond | 13/03/1982 |
| Pill Millipede                         | Glomeris marginata            | Gunthwaite - woods and pond | 13/03/1982 |
| Lithobius crassipes (centipede)        | Lithobius crassipes           | Gunthwaite - woods and pond | 13/03/1982 |
| Lithobius forficatus (centipede)       | Lithobius forficatus          | Gunthwaite - woods and pond | 13/03/1982 |
| Lithobius microps (centipede)          | Lithobius microps             | Gunthwaite - woods and pond | 13/03/1982 |
| Lithobius variegatus (centipede)       | Lithobius variegatus          | Gunthwaite - woods and pond | 13/03/1982 |
| Snake Millipede                        | Proteroiulus fuscus           | Gunthwaite - woods and pond | 13/03/1982 |

**Table B.**

This section must be completed if you wish to gain felling licence approval from the Forestry Commission. The work detailed below should match the proposals set out in the plan.

For details on how to complete the table, please refer to [EWGS 4 Woodland Regeneration Grant Guide \(PDF 84kb\)](#).

| Cpt/sub | Area | Area to be worked | Type of felling | % of felled area comprising |     | Type of licence | Change in woodland type | Preferred claim year | Restock species %                       | Establishment by natural regeneration % | Standards | Notes   |
|---------|------|-------------------|-----------------|-----------------------------|-----|-----------------|-------------------------|----------------------|---|---|-----------|---|
|         |      |                   |                 | BL                          | CON |                 |                         |                      |   |   |           |   |
| 2a      | 0.87 | 100%              | T               | 95                          | 5   | U               |                         |                      |   |   |           | FY 13. Estimated volume 35 m3   |
| 3       | 1.09 | 100%              | T               | 100                         |     | U               |                         |                      |   |   |           | FY 13. Estimated volume 44 m3   |
| 5       | 0.04 | 100%              | T               | 100                         |     | U               |                         |                      |   |   |           | FY 14. Estimated volume 2 m3  |
| 7a      | 7.08 | 47%               | T               | 100                         |     | U               |                         |                      |   |   |           | FY 14. AWS. Estimated volume 133 m3   |
| 1       | 0.10 | 100%              | T               | 100                         |     | U               |                         |                      |   |   |           | FY 14. Estimated volume 4 m3  |
| 2b      | 0.90 | 100%              | CF              | 5                           | 95  | C               | NA-NN to Nat            | 12/13                | SOK 40%<br>AH 30%<br>WCH 15%<br>NBL 15% | N/A                                     |           | Work to be undertaken in forest year 13. Estimated volume 225 m3<br>NBL = ROW / HAZ / SBI |

|    |      |      |    |     |  |   |             |       |   |     |  |   |
|----|------|------|----|-----|--|---|-------------|-------|---|-----|--|---|
| 7e | 0.51 | 100% | CF | 100 |  | C | PAWS to Nat | 14/15 | SOK 34%<br>AH 25.5%<br>WCH 12.75%<br>NBL 12.75%<br>OG 15% | N/A |  | Listed as an AWS but BE and SY are prevalent. Work to be undertaken in forest year 14. Estimated volume 127 m3<br>NBL = ROW / HAZ / SBI<br>OG adjacent stream |
|----|------|------|----|-----|--|---|-------------|-------|---|-----|--|---|

