

Woodland Management Plan

Besselsleigh Wood



| | |
|--|--|
| Date: | 29th November 2012 |
| Date of last review: | |
| Owner / tenant: | Vale of White Horse District Council, oc |
| Agent / contact: | David Rees: owp@oxfordshire.gov.uk |
| Signed declaration of tenure rights and agreement to public availability of the plan (UKWAS 1.1.3/1.1.5/2.1.2): | |

1. Background information

1.1 Location

| | |
|----------------------------------|----------|
| Nearest town, village or feature | Appleton |
| Grid reference | SP450018 |
| Total Area | 10.05 ha |

1.2 Description of the woodland in the landscape

Besselsleigh Wood is one of half a dozen larger woodlands situated on the sandy ridge separating the vale of White Horse from the Thames Valley. It is located between the village of Appleton and the hamlet of Besselsleigh. Besselsleigh Wood is the name of convenience used by local people for contiguous woodland divided into four separate ownerships and happens also to be the formal name of the central section described by this plan. Besselsleigh Wood was acquired by the Vale of White Horse District Council in 1998 for use as a community woodland and is managed by an active and organised grouping, the Bessesleigh Wood Group with direction by the Oxfordshire Woodland Project.

1.3 History of management

No documents survive the change of ownership in 1999. While the woodland has been extensively modified with an unsuccessful planting with sycamore, there appears to have been effort to retain some of the large oak. Current usage is to provide a wide mixture of benefits while also developing high quality timber production. Legal vehicular access is provided for by a route linking the north-east corner of the wood with besselsleigh hamlet via a single field and via the farm track access serving the nearby barn, please refer to map no.1. EWGS no 26479 relates to Besselelsigh Wood. A recent note on the history of the wood is appended.

2. Woodland information

2.1 Areas and features

| 2.1.1 designated areas | map # | in woodland | adjacent |
|--|-------|-------------|----------|
| Other designations eg: National Parks (NPs), World Heritage Site | | x | |
| Local Wildlife Site No. 40K05: Besselsleigh Common Wood | | | |

| 2.1.2 Rare and important species | map # | in woodland | adjacent |
|--|-------|-------------|----------|
| Rare, threatened, EPS or SAP species | | x | |
| Taken from the Oxon Protected & Notable Species Record, TVERC May 2012 | | | |
| <p>Location 1</p> <p>Red Kite</p> <p>Grey Partridge</p> <p>Common Frog</p> <p>Common Toad</p> <p>Green Woodpecker</p> <p>a Pipistrelle Bat</p> <p>Song Thrush</p> <p>Yellow Wagtail</p> <p>Badger</p> <p>Hobby</p> <p>Bluebell</p> <p>Lesser Striated Feather-moss</p> <p>Also recorded elsewhere in the wood:</p> <p>Common Lizard</p> <p>Smooth Newt</p> <p>A beetle</p> <p>Common Clubtail</p> <p>Large-leaved Lime</p> <p>Flax Flea-beetle</p> <p>a true bug</p> | | | |

| 2.1.3 Habitats | map # | in woodland | adjacent |
|--|-------|-------------|----------|
| Ancient semi-natural woodland (ASNW) | | x | |
| Other semi-natural woodland | | x | |
| Veteran and other notable trees | | x | |
| Habitats of notable species or subject to HAPs | | x | |
| Rides and open ground | | x | |
| Valuable wildlife communities | | x | |
| Besselsleigh Wood is a priority habitat, being lowland broadleaved woodland. The woodland is also recorded as Ancient semi-natural woodland over the southern section under this ownership, please refer to map no.3 and to map no.4 for location and extent of open ground. | | | |

| 2.1.4 Water | map # | in woodland | adjacent |
|--|-------|-------------|----------|
| Watercourses | | x | x |
| Ponds | | x | |
| Wetland habitats | | x | |
| Cpt 3a (nw corner) is a wetland habitat apparently in succession to drier habitat. | | | |

| 2.1.5 Landscape | map # | in woodland | adjacent |
|-----------------|-------|-------------|----------|
| None apply. | | | |

| 2.1.6 Cultural features | map # | in woodland | adjacent |
|-------------------------|-------|-------------|----------|
| | | | |

| | | | |
|--|--|---|---|
| Public rights of way | | x | x |
| Proposed permissive footpaths | | x | |
| Areas managed with traditional management systems | | x | |
| Public footpaths cross the woodland, see map no.3. It is proposed to create a permissive path over a section of woodland covered by cpts 1b,1c & 2d. | | | |

| | | | |
|---|-------|-------------|----------|
| 2.1.7 Archaeological features | map # | in woodland | adjacent |
| other | | x | |
| None. The pond on the eastern boundary is reputedly the result of a stray WWII landmine. | | | |

2.2 Woodland resource characteristics

Restocking will emphasise ash or oak, depending on the soil. However use of ash is highly likely to be curtailed by Chalarafraxinea, Ash dieback disease: this plan will be amended as the extent and severity of the disease becomes known.

Hazel will be used. Natural regeneration will be preferred. Sycamore will be tolerated as a nurse. Sweet chestnut will be introduced in small percentages (<15%) as a means of reducing the risk of climate-related stand failures. Other native broadleaves will be recruited via natural regeneration or planted.

2.3 Site description

Access into the woodland is across a neighboring farmers land and is legally provided for. The land is sandy field with good bearing capacity. There is awkward egress onto the B road (see photo on map no. 1) but this is negotiable by fixed-bed vehicles. The residents of Besselsleigh hamlet object to damage of their road verges. Within the wood, access is not suited to intensive harvesting. The experience of harvesting 1ha of broadleaf in 2002 showed that damage is likely to the surface of the extraction ride. The culvert at the junction of this ride and the stream is not designed for heavy loads but has survived one period of extraction. Extraction provision is likely to require improvement but note that the managerment expects to carry out as much harvesting with possible as frequent, low-intensity extraction.

The woodland sits on an area of silty sand and the compartments have been coded according to soil type. The soils grade from free-draining yellow sandy loamy soils in cpt 1 to heavier, darker soils in cpt 2. The terrain appears largely flat but there are minor ridges dips, drainage ditches and streams which combine with heavier soils to restrict vehicular movement over the site.

Wind risk factor is low, with good soil strength combined with low exposure rating and stable species.

The woodland is to be used as a social, environmental and economic asset and is to be controlled by the Besselsleigh Woodland Group, consituted expressly for the proper management of the wood.

The main physical product of the wood is firewood for the time being. However new stands have been managed for the past decade for quality timber production and it is proposed that this will continue, alongside non-timber developmental work.

2.4 Significant hazards, constraints and threats

These are:

- Chalara fraxinea ash dieback disease
- grey squirrel (bark stripping & predation)
- deer browsing. Deer damage extends beyond failure of regenerating crops and can permanently affect ground flora and therefore butterflies and other insects
- climate-related threats, including drought and climate-favoured spread of disease
- abundant standing dead wood may pose a threat to the safe enjoyment of the wood by the public
- as fuel prices rise there may develop a strong market for woodfuel. Under such conditions dead wood habitat may become less abundant than at present
- access along the Highway serving Besselsleigh hamlet is limiting to articulated vehicles. internally, access is limited by bands of soft ground.

3. Long term vision, management objectives and strategy

3.1 Long term vision

To maintain and enhance Besselsleigh Wood for the benefit of future generations by contributing to the sustainable management of Besselsleigh Wood in order to optimise the mix of nature conservation, production of timber and wood products; and its use as a community resource and public amenity.

3.2 Management objectives

To provide the many benefits that come from the multi-purpose management of broadleaved woodland.

In particular:

- free public access for quiet recreation,
- creation of a wood resource for the future
- maintain woodland habitat for biodiversity
- provide opportunities for learning about the natural world and the sustainable production of wood, fruits and other commodities

3.3 Strategy

Work with the community so far as is possible to promote the mix of benefits derivable from the objectives. Proposals will be judged on their capacity to improve present and future value to the community, particularly with respect to sustainability. Conventional forestry techniques will be followed and adapted according to the conditions prevailing on site.

Develop quality timber growth and production where possible through the practical efforts of the community and through the use of broadleaved species. Use of non-native species will need to be justified. An informal system of (in-kind) reward for notable voluntary effort, will be considered.

Develop biodiversity where opportunities present.

Foster new links with other sections of the community where it contributes to overall benefit.

Maintain physical and legal access to and through the woodland for all-comers.

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

Factors currently affecting the mode of harvesting employed:

- public usage of the wood, leading to a need to manage on an acceptably small scale with the support of the community
- maintain diversity
- manage to the strengths of the Besselsleigh Wood volunteers group
- manage to the productivity of the woodland and recognise a natural tendency towards congestion (overstocking)
- poor bearing capacity of the main extraction ride

Conditions for the foreseeable future will favour small-scale but frequent (annual) harvesting activity. Small compartment sizes, the manpower, limited machinery available and the current market all favour small-scale harvesting. Conditions may change and therefore the approach may change accordingly.

4.1.2 Phased felling and restructuring of plantations

It is proposed to retain the native broadleaved nature of the woodland as at present with the possible exception of the introduction of a proportion of sweet chestnut (~15%) as a hedge against failure of key species.

Clear felling will be avoided in favour of selective felling to enable the retention of a proportion of aging oak trees and others worthy of retention. Where practical, dead wood will be left standing. Numbers of retained trees will need to be carefully considered, due to the difficulty of removal at some later stage.

Despite first appearances, the wood has no great imbalance in age structure, however much of the younger stock is growing as informal poor quality understorey.

4.1.3 Establishment, restocking and regeneration

This site has a high potential for natural regeneration, common on lighter ground. However there are few, if any, cohorts of regeneration of ages 5-20 years, implying that deer control will need to be applied in the form of treeshelters, fencing or population control (or a combination, as required). Much of the present regeneration is of ash.

This regeneration policy depends heavily on the natural regeneration of ash and should be reviewed in the light of the developing ash dieback epidemic.

The following principles will be applied to regenerating stands in the wood:

- use natural regeneration from seed and stool where possible. Where coppice regeneration is desirable, for example, firewood or as a nurse for a successor crop and fencing is impractical, consider low pollarding.
- plant only where regeneration is not sufficient or where it is desirable to modify the species proportions
- accept no less than 1600 trees/ha and encourage the highest regeneration densities achievable-establish replacement stands using mixed species. Where planted, species should occur in informal groups of 15-50 trees with other species included in 'minor' percentages. The diversity of small groups of many species is intended to reduce the impact of substantial damage in any single species. Species to be considered for planting include oak, ash, wild cherry, field maple, alder, silver birch, sweet chestnut and native shrubs. Sycamore will not be planted but will be used as a nurse for other species.

4.2 New planting

No new planting is anticipated.

4.3 Other operations

The Besselsleigh Woodland Group will liaise with the owner regarding the management of tree safety on site. Footpath surfaces will be improved from time to time.

4.4 Protection and maintenance

4.4.1 Pest and disease management

Chalara fraxinea is a major threat to Besselsleigh Wood and is likely to trigger a fundamental change in management practice, options of which have yet to be worked out.

Grey squirrel control should be a mixture of shooting (Winter) and poisoning or trapping (Spring), in line with Forestry Commission guidelines. Co-operation and collaboration should be actively sought with neighbouring landowners.

Other pest agents are: roe and muntjac deer (these species are well established and fallow deer is newly reported in the area)himalayan balsam, bracken. Rhododendron, gorse and the native holly may potentially become significant issues for management in future decades.

During regeneration:

- protect using temporary fencing where practical. Take advantage of no-browse conditions to compare the diversity and quality of ground flora by survey, reviewing results to inform future management.
- protect seedlings using treeshelters (1.2m works well under current (2012) conditions) where fencing is impractical. Using treeshelters, Incident light intensity may need to be preserved by reducing the numbers of standards remaining.
- where there is a strongly competing sward, use spot treatments of glyphosate herbicide around the base of tree shelters.
- Himalayan balsam will be controlled by pulling and by control of light conditions, where possible.
- Gorse and holly will be controlled to allow a continued but controlled presence in the wood.
- Rhododendron will be removed from the wood.

4.4.2 Fire plan

Besselsleigh Wood is broadleaved in character and is therefore less likely than coniferous woodland to burn, however there has been a recent (2011) incident of arson in neighbouring woodland in which a building was destroyed.

The point of vehicular access off the main road is at SP457019 (see photo of entrance to track from main road, map no.1). This point is adjacent to the last house in Bessesleigh hamlet on its north western side. The combination lock on the gate is 2086.

Sources of water: a permanent stream at the western boundary, an ephemeral pond at the eastern extremity.

Responsible persons:

George Reade Vale of White Horse District Council 01235 520202 M07702 277810M

Richard Snow: Besselsleigh Wood Group 01865 861703 M07827 293429M

David Rees, Manager Oxfordshire Woodland Project 01865 815427 M07801337382M

Owners of adjacent woodland to the south (Colliers Copse) Lucie Mayer 01865 454925

Owners of adjacent woodland to the north (England Copse) David Gow 01865 862908

No special emergency procedures are envisaged. No hazardous substances are stored on site as at 2012.

4.4.3 Waste disposal and pollution

No chemicals or fuels or machinery are to be stored on site. Harvesting equipment is to be stored, maintained and fueled offsite. Any biosecurity measures will be undertaken to avoid disinfectant contaminating ground or watercourse, disinfectant used to be non-persistent.

4.4.4 Protection from unauthorised activities

None.

4.4.5 Protection of other identified services and values

Soils should be protected against undue damage by restricting extraction operations to periods of good weather.

4.5 Game management

None.

Any shooting taking place will be for the purposes of species control and will observe appropriate safeguards and norms.

4.6 Protecting and enhancing landscape, biodiversity and special features

4.6.1 Management of designated areas

Local Wildlife Site: the local officer (Erin Murton, BBOWT) has been consulted and observations taken into account. The entire woodland area is being managed with wildlife in mind. Zoning for special treatment has -and continues to be- considered but is not necessary for the time being.

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

Long term retentions; Selected trees will be retained as long-term retentions over the whole wood since this is a policy that will provide immediate benefit and can be easily undertaken in this wood.

Dead Wood: As much naturally occurring dead standing and fallen wood as can be safely accommodated will be kept within the wood as a fundamental component of the ecosystem. Lop and top will be retained in windrows up to 6' in height, as has been the practice in previous fellings. Excess will either be burned on site or extracted and sold on as biomass.

Open ground will be mown to limit the vigour of bracken and steps taken to limit the progress of Himalayan balsam. The main ride is not scrubbing up as rapidly as anticipated, delaying the development of classic ride edges (as per JNCC booklet Managing Rides and Glades) by zoned cutting. This is an indicator of substantial browsing pressure on site. As and when woody cover develops, it will be managed by zoning of cutting to provide the structure recommended in the above booklet.

Other points of significance: Cpt 3a appears to be wet woodland and will be managed to maintain it at this point in its succession.

Species protection: Badgers are confirmed as present in the woodland. Operations will be designed to accommodate the species and to comply with the law. Other European Protected Species such as species of bat and Great Crested Newt, are anticipated.

4.6.3 Special measures for ASNW and SNW

Important areas and features: Bessesleigh Wood is an important feature in its entirety and will be managed as such. Small compartments, selective felling and thinning and use of natural regeneration will all maintain the special status of the wood.

4.6.4 Special measures for PAWS

Large parts of the wood have been managed as a broadleaved plantation of non-native sycamore. A programme of replacement was started in 2002 and it is proposed that this be continued, re-establishing native species as the primary occupiers of the woodland. However, sycamore regeneration will be used as a nurse where it occurs and sweet chestnut will be introduced in small percentages as a hedge against climate-related stand failures. Wholesale removal of sycamore will be delayed while ash dieback threatens the integrity of other parts of the wood.

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

Felling will be co-ordinated with neighbours' harvesting operations.

4.7 Management of social and cultural values

4.7.1 Archaeology and sites of cultural interest

There is an earth bank on the south-west boundary of of the wood (cpt 2e). There is no other archaeological interest on site that has been identified. Unusual ditches surrounding cpt 2f are steep-sided and are considered recent. The pond at the eastern boundary is reported to have beenn the result of a stray WWII landmine. Maintain public rights of way (please refer to map no 3) and establish a permissive pathway through the western compartments of the wood. Maintain and increase use of this community wood by local people for a variety of complementary activities, particularly sustainable woodland development, to be decided and policed in conjunction with local people.

4.7.2 Public access and impacts on local people

It is intended that the woodland be used extensively formally and informally by local people.

5. Consultation

| Organisation/individual | Date received | Comment | Response/action |
|--|---------------|--|---|
| Community consultation | 2011-07-02 | Conducted in the form of a woodland tour and description of proposals at the Bess Wood 'Woodfest' open day | All in favour |
| Consultation of the Besselsleigh Woodland Group membership | 2011-10-23 | public meeting | agreed a 'plan for a plan' |
| Erin Murton LWS Officer BBOWT | 2012-05-30 | general comments via email, supports retention of OG | OG provision to be reviewed in the light of Chalara |
| Besselsleigh Wood Group consultation on proposed plan provisions | 2012-05-31 | public meeting | provisions scrutinised and modified Predicted scale of work considered against capacity of Group to achieve in house or direct external agencies. |
| Vale of White Horse District Council | 2012-06-12 | George Reade, Vale Arb Officer consulted | Responses accepted. |

6. Monitoring plan summary

| Objective number, issue or UKWAS Requirement | Indicator | Method of assessment | Monitoring period | Responsibility | How will information be used? |
|--|--|--|---|------------------------------|---|
| restock success & balance in the light of Chalara | regen of appropriate density, species & percentages present | inspect | to P+5 | BWG | to feed back into regeneration practice |
| invasive species status | spread of himalayan balsam, establishment of holly and rhododendron | inspect, map (simple mapping!) and compare with previous maps | continual | BWG | to gauge effectiveness of action |
| hazel & ash coppice plot success | regrowth growing past browse height | inspect | post-coppicing | BWG | to pick up early on browsing damage and correct, to judge the necessity of continued use of low pollarding |
| restructuring of age & species | rate of harvesting and regeneration operations keeping pace with plans and underlying productivity to avoid congestion | review action plan progress, consider how progress was achieved -by BWG or by contractor | continual | BWG/DR | revise implementation strategy as necessary |
| condition of extraction ride | surface condition | Easy walking test | after extraction | BWG | to trigger repair and to learn for the next operation |
| Badger | Active sett | sett active at usual level of ~15 holes? | annually in spring | BWG | to inform intensity of ops |
| Tree condition over paths: non-expert survey, see also exopert survey, below | no obvious danger | non-expert visual, updating of a tree hazard log | annually on St David's Day, also casual & continual reporting to responsible person | BWG | to ensure that all trees of high potential hazard are inspected for obviously dangerous faults on a regular basis, to trigger remedial action |
| biodiversity | plants, butterflies and birds recorded | annual survey | once annually also continual input of sightings to the record | BWG to establish & hold data | to provide a timeline of progress of classes of biodiversity |

| | | | | | |
|-----------------------------------|--|---|-----------|--------|--|
| grey squirrel damage | damage seen, effect of damage on woodland viability, record of kills | casual survey, numbers of gs shot or trapped recorded | annual | BWG | to provide a relationship between numbers culled and acceptable levels of damage |
| browsing pressure on ground flora | changes in vegetation brought about by cessation of browsing | comparison between fenced and unfenced plots | annual | BWG | to justify culling, to measure year-by-year changes |
| footpath furniture | safety and convenience in use of footbridges, stiles, walkways, path surface | inspection & record | annual | BWG | to maintain safe operation and to justify expenditure on replacements and to inform grant bids |
| Tree condition: expert survey | not known | specialist inspection of high-risk trees | not known | WOWHDC | to inform remedial work |

7. Work programmes

7.1 Outline long-term work programme

| Compartment | Activity | Year |
|-------------|--|-------|
| 1c | Control grey squirrel | 6-10 |
| 1c | prune plus trees | 6-10 |
| 1c | thin | 6-10 |
| 1e | Regularly low-pollard 90% of trees in 10-20% sections. Leave behind occasional trees to grow on as standards, ultimately to give height without excessive shading of bottom. | 6-10 |
| 1e | pull himalayan balsam | 6-10 |
| 1f | grey squirrel control | 6-10 |
| 1f | pruning | 6-10 |
| 1g | Low-pollard sycamore & hazel to clear for replanting. Remove very occasional oak to consolidate planting areas | 6-10 |
| 1g | Regenerate using natural regeneration and augment with planting. protect natural regeneration with fencing or 1.2m tubes over seedlings at 2.5x2.5m spacing. | 6-10 |
| 1g | maintain regeneration | 6-10 |
| 1g | manage pollard regrowth to limit extent and to provide good conditions for establishment of successor crop | 6-10 |
| 1h glade | maintain as appropriate for public amenity | 6-10 |
| 1i Pond | survey pond according to established procedure | 6-10 |
| 2a | selectively thin | 6-10 |
| 2c | Selective crown thin to remove 20% of stems. | 6-10 |
| 2i | Coppice/low pollard hazel | 6-10 |
| 2i | pull himalayan balsam | 6-10 |
| 3a | Pull himalayan balsam | 6-10 |
| 1a | Selective fell and regenerate. Retain stable trees of interest & poise to give 5--10% canopy cover evenly over the area to maintain structural diversity and some shelter. Choose non-sycamore trees for preference. | 11-15 |
| 1b | Co-ordinate felling proposals with neighbour to the south (Lucie Mayer). Selective fell sycamore, leaving oak standing unless specific worthwhile market for timber is found that justifies loss of feature, regenerate naturally, augment as necessary with planting. | 11-15 |
| 1c | Control grey squirrel | 11-15 |
| 1c | thin | 11-15 |
| 1d | fell & replant | 11-15 |
| 1e | Regularly low-pollard 90% of trees in 10-20% sections. Leave behind occasional trees to grow on as standards, ultimately to give height without excessive shading of bottom. | 11-15 |
| 1e | pull himalayan balsam | 11-15 |
| 1f | grey squirrel control | 11-15 |
| 1g | manage pollard regrowth to limit extent and to provide good conditions for establishment of successor crop | 11-15 |
| 1h glade | maintain as appropriate for public amenity | 11-15 |
| 1i Pond | survey pond according to established procedure | 11-15 |
| 2a | selectively thin | 11-15 |
| 2i | Coppice/low pollard hazel | 11-15 |
| 2i | pull himalayan balsam | 11-15 |
| 3a | Pull himalayan balsam | 11-15 |
| 1c | Control grey squirrel | 16-20 |
| 1c | thin | 16-20 |
| 1d | prune | 16-20 |

| | | |
|----------|--|-------|
| 1e | Regularly low-pollard 90% of trees in 10-20% sections. Leave behind occasional trees to grow on as standards, ultimately to give height without excessive shading of bottom. | 16-20 |
| 1e | pull himalayan balsam | 16-20 |
| 1f | grey squirrel control | 16-20 |
| 1h glade | maintain as appropriate for public amenity | 16-20 |
| 1i Pond | survey pond according to established procedure | 16-20 |
| 2a | selectively thin | 16-20 |
| 2d | Apply first thinning/respacing as required | 16-20 |
| 2i | Coppice/low pollard hazel | 16-20 |
| 2i | pull himalayan balsam | 16-20 |
| 3a | Pull himalayan balsam | 16-20 |

7.2 Short-term work programme

| Compartment | Activity | Year |
|-------------|---|------|
| 1c | Control grey squirrel sufficiently to prevent excessive damage on young stock | 1 |
| 1c | formative prune plus trees of oak, ash, cherry. While pruning, discourage wolf trees adjacent to good ones by decapitation | 1 |
| 1e | Pull himalayan balsam | 1 |
| 1f | maintain new planting | 1 |
| 1f | formative prune | 1 |
| 1h glade | prepare annually for Woodfest | 1 |
| 1i Pond | Take advice and establish a procedure for survey of pond/peri-pond wildlife. | 1 |
| 2i | Restore coppice. | 1 |
| 2i | Clear hung up trees | 1 |
| 2i | Improve the footpath surface | 1 |
| 2i | Review signage & report | 1 |
| 2i | Pull himalayan balsam | 1 |
| 3a | Pull himalayan balsam | 1 |
| 3a | Layer small-leaved lime | 1 |
| 1c | Control grey squirrel sufficiently to prevent excessive damage on young stock | 2 |
| 1e | Pull himalayan balsam | 2 |
| 1f | maintain new planting | 2 |
| 1f | carry out planting of broadleaves in gaps | 2 |
| 1g | Clearfell a 10mx10m area at the eastern entrance to provide a more welcoming entrance and maintain as open ground. | 2 |
| 1g | Review signage & report | 2 |
| 1h glade | prepare annually for Woodfest | 2 |
| 2a | selectively thin | 2 |
| 2i | Restore coppice. | 2 |
| 2i | Improve the footpath surface | 2 |
| 2i | Review signage & report | 2 |
| 2i | Pull himalayan balsam | 2 |
| 3a | Pull himalayan balsam | 2 |
| 3a | Layer small-leaved lime | 2 |
| 1a | Experiment with natural regeneration in existing glade: expand glade, fence against deer, control bracken and observe. Recruit any natural regeneration & protect if necessary. Augment by planting with broadleaves. | 3 |
| 1c | Control grey squirrel sufficiently to prevent excessive damage on young stock | 3 |
| 1c | formative prune plus trees of oak, ash, cherry. While pruning, discourage wolf trees adjacent to good ones by decapitation | 3 |
| 1e | Pull himalayan balsam | 3 |
| 1f | maintain new planting | 3 |
| 1f | formative prune | 3 |
| 1h glade | prepare annually for Woodfest | 3 |

| | | |
|----------|--|---|
| 2i | Pull himalayan balsam | 3 |
| 3a | Pull himalayan balsam | 3 |
| 1c | Control grey squirrel sufficiently to prevent excessive damage on young stock | 4 |
| 1e | Pull himalayan balsam | 4 |
| 1h glade | prepare annually for Woodfest | 4 |
| 2d | Selective fell retaining anyu resistant ash and replant with mixed native broadleaves to 1600 trees/ha, accepting surviving ash regeneration | 4 |
| 2i | Pull himalayan balsam | 4 |
| 3a | Pull himalayan balsam | 4 |
| 1c | Control grey squirrel sufficiently to prevent excessive damage on young stock | 5 |
| 1c | formative prune plus trees of oak, ash, cherry. While pruning, discourage wolf trees adjacent to good ones by decapitation | 5 |
| 1f | formative prune | 5 |
| 1h glade | prepare annually for Woodfest | 5 |

8. Costings

8. Costings

The woodland work will need to pay for itself on a yearly basis or to the limits of any modest reserves that may be accumulated by BWG for the purpose.

Expenditure will be mitigated by Forestry Commission grant aid and by the willing provision of voluntary labour. This latter is not limitless and care should be taken to foster commitment & enjoyment and also to replenish natural wastage through an informal process of recruitment. Limited felling may be undertaken free of charge or even for a small positive income if a local woodland training company can be encouraged to continue to use the wood as a venue.

Costs for particular projects may possibly be borne by certain charitable trusts.

Income is anticipated from the sale of firewood and from timber (to a lesser degree) and should be retained by BWG specifically for use in the wood with permission of the owner, WOWHDC. Income from Woodfest activities may be available for use in the wood.

9. Maps

| Map No./Title | Description |
|-------------------------------|--|
| 1 aerial photo with boundary | aerial photo with boundary, geographical context, contact phone numbers, adjacent owners where known and vehicular entry |
| 2 compartments | compartments, areas, main species and proposed treatment. Not to scale: see individual inventory mapping for accurate mapping. |
| 3 constraints & opportunities | showing asnw, rights of way & (non-surfaced) vehicular access |
| 4 Open Ground | showing glades and position of the main ride |
| | |

10. Thinning, felling and restocking proposals

Table A

| compartment | main species | total work area (ha) | estimated volume to be harvested during work periods (m ³) | | | |
|------------------------------|--------------|----------------------|--|------------|-------------|-------------|
| | | | years 1-5 | years 6-10 | years 11-15 | years 16-20 |
| Besselsleigh Wood , 1a | broadleaf | 1 | 0 | 0 | 150 | 0 |
| Besselsleigh Wood , 1b | broadleaf | 1 | 0 | 0 | 150 | 0 |
| Besselsleigh Wood , 1c | broadleaf | 0 | 0 | 0 | 5 | 5 |
| Besselsleigh Wood , 1d | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 1e | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 1f | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 1g | broadleaf | 0 | 0 | 10 | 0 | 0 |
| Besselsleigh Wood , 1h glade | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 1i Pond | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 2a | broadleaf | 0 | 5 | 5 | 5 | 5 |
| Besselsleigh Wood , 2b | broadleaf | 1 | 15 | 15 | 15 | 15 |
| Besselsleigh Wood , 2c | broadleaf | 0 | 0 | 15 | 0 | 0 |
| Besselsleigh Wood , 2d | broadleaf | 1 | 150 | 0 | 0 | 0 |
| Besselsleigh Wood , 2e | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 2f | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 2g | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 2h | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 2i | broadleaf | 1 | 10 | 10 | 10 | 10 |
| Besselsleigh Wood , 2j | broadleaf | 0 | 0 | 0 | 0 | 0 |
| Besselsleigh Wood , 3a | broadleaf | 0 | 0 | 0 | 0 | 0 |

Table B

| compartment | area to be worked | type of felling | Felled area composition | type of license | change in woodland type | preferred claim year | restock species | natural regeneration | standard proposals | notes |
|-------------|-------------------|-----------------|--------------------------------|-----------------|-------------------------|----------------------|-------------------|----------------------|--------------------|---|
| 1a | 0% | | 0% Broadleaved 0% Conifer | C | from: to: | | | 0% | | detail not prepared beyond year 10 |
| 1d | 75% | CF | 100% Broadleaved 0% Conifer | C | from: BL_P to: BL | | 50% POK 20% AH | 0% | | will consider creating conditions for natural regeneration of ok ah sbi |

| | | | | | | | | | | |
|----|------|----|--------------------------------|---|-----------------------|--|----------|-----|-----|--|
| 1g | 90% | SF | 100% Broadleaved 0% Conifer | C | from: BL_P to: NBL | | 100% NBL | 60% | 1.2 | Aim for at least 1600 plant/ha |
| 1g | 5% | CF | 100% Broadleaved 0% Conifer | C | from: to: | | | 0% | | Clear fell and maintain as open ground to create a more welcoming entrance |
| 2a | 100% | T | 100% Broadleaved 0% Conifer | U | from: to: | | | 0% | | Thinning to be undertaken according to the capacities of Bess Wood Group: The principle will be to thin compartments by felling small numbers of trees but on an annual basis. |
| 2c | 100% | T | 100% Broadleaved 0% Conifer | U | from: to: | | | 0% | | |
| 2d | 100% | SF | 100% Broadleaved 0% Conifer | C | from: to: | | | 25% | | accept sycamore natural regeneration in absence of ash regeneration, use as a nurse. |
| 2i | 50% | FC | 50% Broadleaved 0% Conifer | U | from: to: | | | 0% | | coppice may be low pollarded where it is difficult to protect from browsing |
| 2j | 40% | T | 0% Broadleaved 0% Conifer | U | from: to: | | | 0% | | respace. |

woodland: Besselsleigh Wood

compartment: 1a



Area: 1.35 ha

Stocking density: 400 trees per hectare

Management Notes

Ground grows apparently vigorous trees but quality of sycamore is poor due to chronic grey squirrel damage. Fell and replant once canopy closes on adjacent recent planting.

Management History

Box is present and regenerating, rhododendron, yew, holly, hornbeam and bracken. Bluebell and wood sorrel. Greater burdock is also present. Plenty of dead wood, mostly fallen. Footpath forms the eastern boundary. There is the occasional veteran oak here. Badger tracks present but no sett.

| Year | Activity |
|-------|---|
| 3 | Experiment with natural regeneration in existing glade: expand glade, fence against deer, control bracken and observe. Recruit any natural regeneration & protect if necessary. Augment by planting with broadleaves. |
| 11-15 | Selective fell and regenerate. Retain stable trees of interest & poise to give 5--10% canopy cover evenly over the area to maintain structural diversity and some shelter. Choose non-sycamore trees for preference. |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------------|---------------|-------|--------|----------------------|---|
| 45% | Sycamore - <i>Acer pseudoplatanus</i> | 1950 | 41 cm | 20 m | 32.08 m ² |  |
| 45% | Sycamore - <i>Acer pseudoplatanus</i> | 1980 | 20 cm | 15 m | 7.63 m ² |  |
| 5% | ash & hazel and larg | | 0 cm | 0 m | 0 m ² |  |
| 5% | Open ground | | 0 cm | 0 m | 0 m ² | |

| | |
|-------------------|----------------------|
| Total basal area | 39.71 m ² |
| Basal area per ha | 29.41 m ² |

woodland: Besselsleigh Wood

compartment: 1b



Area: 1.02 ha

Stocking density: 1000 trees per hectare

| Management Notes |
|---|
| Sandy/silty soil, apparent good potential for growth. Plenty of dead fallen timber with occasional large standing dead oak. Chronic grey squirrel damage. Badger sett (~15 hole, 4 active) in eastern portion of compartment. Selective fell sycamore and regenerate with broadleaf |

| Management History |
|---|
| Sycamore planted under a (selectively felled?) area of oak to leave one oak every 15-20m in ~1960. Sycamore crop has been destroyed by grey squirrel, leaving arthritic, stunted trees, barely making a continuous canopy. Light incidence of felted beech coccus on sycamore. Wood sorrel, bluebell, bracken, nettle. Occasional thorn and hazel. |

| Year | Activity |
|-------|--|
| 11-15 | Co-ordinate felling proposals with neighbour to the south (Lucie Mayer). Selective fell sycamore, leaving oak standing unless specific worthwhile market for timber is found that justifies loss of feature, regenerate naturally, augment as necessary with planting. |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------------|---------------|-------|--------|----------------------|---|
| 90% | Sycamore - <i>Acer pseudoplatanus</i> | 1960 | 23 cm | 15 m | 38.14 m ² |  |
| 10% | English Oak - <i>Quercus robur</i> | 1870 | 92 cm | 25 m | 67.81 m ² |  |

| | |
|-------------------|-----------------------|
| Total basal area | 105.95 m ² |
| Basal area per ha | 103.87 m ² |

woodland: Besselsleigh Wood

compartment: 1c



Area: 0.76 ha

Stocking density: 1500 trees per hectare

Management Notes

This compartment has a large area of open ground as a wide ride, reducing the net stocked area to 70%, therefore inventory figures will need to be adapted to take this into account. Ride width was not a design feature but resulted from failed minor species planting. Advice from Erin Murton, Local Wildlife sites Advisor is to maintain all or some of this open area.

Some grey Squirrel damage starting on a small number of the planted oak (2011).

Formative prune at least 150 trees/ha = one tree every ~8mx8m. Thin after canopy is closed, relieving ash from competition promptly but leaving oak in competition a little longer, if possible.

Bracken, soft rush & nettle present.

Management History

previous crop was G/S damaged sycamore felled in 2001/2, replanted with present crop in 2002

| Year | Activity |
|--------------------------|--|
| 1, 2, 3, 4, 5 | Control grey squirrel sufficiently to prevent excessive damage on young stock |
| 1, 3, 5 | formative prune plus trees of oak, ash, cherry. While pruning, discourage wolf trees adjacent to good ones by decapitation |
| 6-10 | prune plus trees |
| 6-10, 11-15, 16-20 | Control grey squirrel |
| 6-10, 11-15, 16-20 | thin |

Inventory

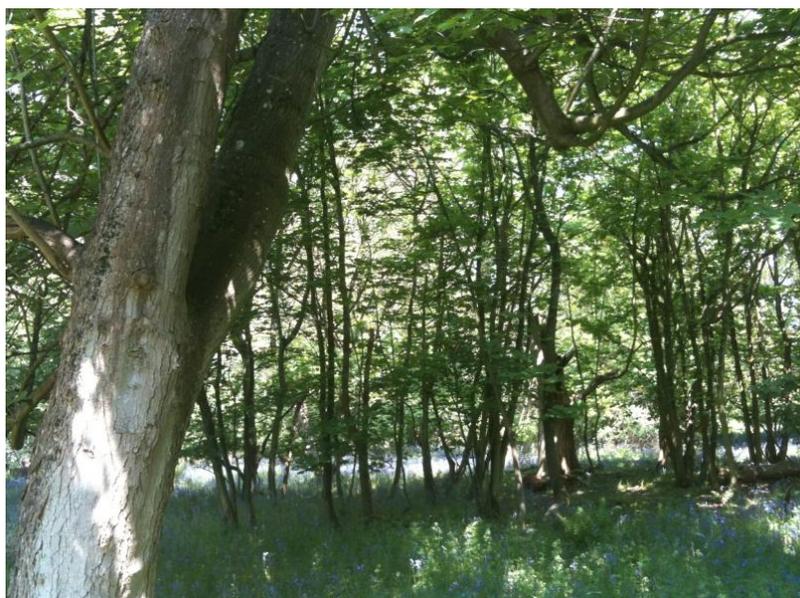
| composition | species | planting year | dbh | height | basal area | form |
|-------------|------------------------------------|---------------|------|--------|---------------------|---|
| 50% | English Oak - <i>Quercus robur</i> | 2002 | 8 cm | 5 m | 2.87 m ² |  |

| | | | | | | |
|-----|----------------------|------|-------|-----|---------------------|---|
| 30% | open ground with inc | | 0 cm | 0 m | 0 m ² | |
| 10% | Ash | 2002 | 5 cm | 6 m | 0.22 m ² |  |
| 10% | Cherry | 2002 | 11 cm | 6 m | 1.08 m ² |  |

| | |
|-------------------|---------------------|
| Total basal area | 4.17 m ² |
| Basal area per ha | 5.49 m ² |

woodland: Besselsleigh Wood

compartment: 1d



Area: 0.57 ha

Stocking density: 700 trees per hectare

Management Notes

Mostly bare woodland floor but with bracken, bramble, holly, wood sorrel in northern end. plenty of dead fallen and standing timber.

Clearfell sycamore, retain large oak, allowing removal of a small proportion to consolidate light over restocking areas, replant with broadleaves. Retain some dead timber.

Management History

Planted with Sycamore circa 1950, subsequently destroyed by grey squirrel.

| Year | Activity |
|-------|----------------|
| | |
| 11-15 | fell & replant |
| 16-20 | prune |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------------|---------------|-------|--------|----------------------|---|
| 10% | English Oak - <i>Quercus robur</i> | 1870 | 80 cm | 19 m | 20.06 m ² |  |
| 10% | Sycamore - <i>Acer pseudoplatanus</i> | 1950 | 60 cm | 18 m | 11.28 m ² |  |
| 55% | damaged sycamore | 1950 | 27 cm | 14 m | 12.56 m ² |  |
| 15% | Young but poor sycam | 1980 | 14 cm | 12 m | 0.92 m ² |  |
| 5% | Lawson Cypress | 1960 | 0 cm | 0 m | 0 m ² |  |
| 5% | Hawthorn | 1980 | 0 cm | 0 m | 0 m ² | |

| | |
|------------------|----------------------|
| Total basal area | 44.82 m ² |
|------------------|----------------------|

| | |
|-------------------|----------------------|
| Basal area per ha | 78.63 m ² |
|-------------------|----------------------|

woodland: Besselsleigh Wood

compartment: 1e



Area: 0.57 ha

Stocking density: 1000 trees per hectare

Management Notes

Manage principally to provide a sheltering edge to the woodland, with just occasional views out from path. Recent planting activity of ash and hazel are to be low-pollarded to maintain density of stools and hence low wind permeability, poles to be used for firewood or craft use. Continue improving the woodland edge by planting 50m hedgerow per annum. Bracken is vigorous here. Retain large old oak where safe. Retain the best sycamore patches. Monitor mature stand of mixed trees at southern tip, harvest and replant only where safety necessitates. Control himalayan balsam where it occurs, principally at the southern end.

Management History

Sycamore underplanted among selectively felled oak ~1960s. Sycamore ruined by grey squirrel damage. Substantial bare sectioned being restocked with ash and hazel to provide a firm dense edge to form an effective barrier against easterly winds entering the wood.

There is some occasional elm present

| Year | Activity |
|--------------------|--|
| | Plant 50m of native broadleaved hedgerow per annum at the woodland edge. |
| 1, 2, 3, 4 | Pull himalayan balsam |
| 6-10, 11-15, 16-20 | Regularly low-pollard 90% of trees in 10-20% sections. Leave behind occasional trees to grow on as standards, ultimately to give height without excessive shading of bottom. |
| 6-10, 11-15, 16-20 | pull himalayan balsam |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------------|---------------|-------|--------|---------------------|---|
| 40% | Sycamore - <i>Acer pseudoplatanus</i> | 1960 | 20 cm | 13 m | 7.16 m ² |  |

| | | | | | | |
|-----|-----------------------------|------|--------|------|----------------------|--|
| 40% | Ash | 2008 | 2 cm | 1 m | 0.07 m ² | |
| 10% | English Oak - Quercus robur | 1870 | 100 cm | 20 m | 44.77 m ² | |
| 10% | other scrubby broad | | 0 cm | 0 m | 0 m ² | |

| | |
|-------------------|----------------------|
| Total basal area | 52 m ² |
| Basal area per ha | 91.23 m ² |

woodland: Besselsleigh Wood

compartment: 1f



Area: 0.19 ha

Stocking density: 2500 trees per hectare

Management Notes

This compartment includes an area of young planted woodland (with some mature oak, willow and ash present). There is some gapping which requires further infill and stocking of such a small compartment will be limited by edge effect.

Field layer is dominated by bramble and bracken. There is some standing dead wood present.

There is a well constructed foot bridge over the stream in the centre of this compartment.

Management History

New plantings of oak, ash, cherry mixes at 2m spacing were planted in 2002 and 2007: The 2002 stock has now reached 6m and the 2007 stock are still protected by tree shelters.

| Year | Activity |
|--------------------------|---|
| 1, 2, 3 | maintain new planting |
| 1, 3, 5 | formative prune |
| 2 | carry out planting of broadleaves in gaps |
| 6-10 | pruning |
| 6-10, 11-15, 16-20 | grey squirrel control |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|------------------------------------|---------------|-------|--------|---------------------|------|
| 50% | English Oak - <i>Quercus robur</i> | 2002 | 8 cm | 0 m | 1.19 m ² | |
| 20% | Ash | 2002 | 0 cm | 0 m | 0 m ² | |
| 20% | Cherry - <i>Prunus avium</i> | 2002 | 14 cm | 0 m | 1.46 m ² | |

| | | | | | | |
|-----|--------|------|------|-----|------------------|--|
| 10% | Willow | 2002 | 0 cm | 0 m | 0 m ² | |
|-----|--------|------|------|-----|------------------|--|

| | |
|-------------------|----------------------|
| Total basal area | 2.65 m ² |
| Basal area per ha | 13.95 m ² |

woodland: Besselsleigh Wood

compartment: 1g



Area: 0.28 ha

Stocking density: 300 trees per hectare

Management Notes

Area dominated by poorly formed sycamore with occasional oak standards and hazel understorey. Retain oak but otherwise fell and regenerate naturally and with an oak, ash, cherry mix. The sycamore and hazel should be low-pollarded to protect regrowth from browsing and to provide early shelter for newly planted stock. Coppice/pollard on a short rotation to limit excessive nurse competition. The eastern extreme abuts the woodland entrance: Clear fell a 10mx10m area and maintain as open ground to provide a more welcoming entrance to visitors.

Management History

| Year | Activity |
|-------------|--|
| 2 | Clearfell a 10mx10m area at the eastern entrance to provide a more welcoming entrance and maintain as open ground. |
| 2 | Review signage & report |
| 6-10 | Low-pollard sycamore & hazel to clear for replanting. Remove very occasional oak to consolidate planting areas |
| 6-10 | Regenerate using natural regeneration and augment with planting. protect natural regeneration with fencing or 1.2m tubes over seedlings at 2.5x2.5m spacing. |
| 6-10 | maintain regeneration |
| 6-10, 11-15 | manage pollard regrowth to limit extent and to provide good conditions for establishment of successor crop |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|------------------------------------|---------------|--------|--------|---------------------|------|
| 10% | English Oak - <i>Quercus robur</i> | 1870 | 111 cm | 26 m | 8.13 m ² | |
| 60% | Sycamore | 1960 | 15 cm | 14 m | 0.89 m ² | |
| 30% | Hazel - <i>Corylus avellana</i> | | 0 cm | 0 m | 0 m ² | |

| | |
|-------------------|----------------------|
| Total basal area | 9.02 m ² |
| Basal area per ha | 32.21 m ² |

woodland: Besselsleigh Wood

compartment: 1h glade



Area: 0.33 ha

This is a non-wooded area.

Management Notes

This is the location of the woodfest, held most summers for the local community and organised by the Besselsleigh Wood Group.

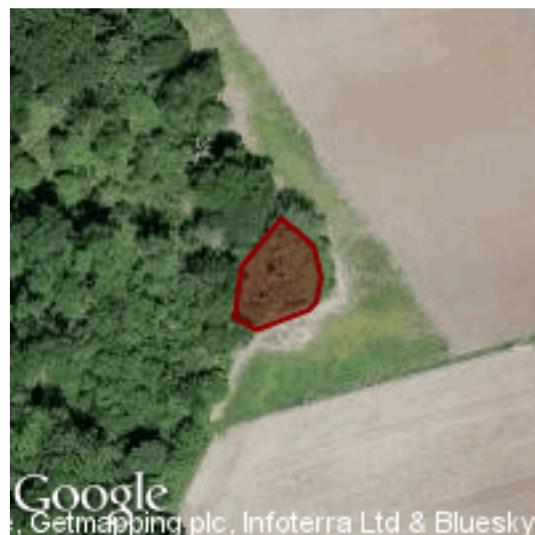
Of the few tree species in this area of open ground oak is dominant with some ash, birch and hawthorn present. The trees are poor in form. There is also some scattered gorse. The field layer is dominated by bracken growth.

Management History

| Year | Activity |
|--------------------------|--|
| 1, 2, 3, 4, 5 | prepare annually for Woodfest |
| 6-10, 11-15, 16-20 | maintain as appropriate for public amenity |

woodland: Besselsleigh Wood

compartment: 1i Pond



Area: 0.05 ha

This is a non-wooded area.

Management Notes

undertake amateur wildlife survey annually or every 5 years minimum. Check pond condition: % open water, depth. Re-excavate pond very infrequently, alternatively, consider creating a second pond nearby.

Management History

None known, no data available.

| Year | Activity |
|--------------------------|--|
| 1 | Take advice and establish a procedure for survey of pond/peri-pond wildlife. |
| 6-10, 11-15, 16-20 | survey pond according to established procedure |

woodland: Besselsleigh Wood

compartment: 2a



Area: 0.26 ha

Stocking density: 366 trees per hectare

| Management Notes |
|---|
| Mark with white bands the best and most vigorous stems and remove adjacent trees competing most severely with them. |

| Management History |
|---|
| Holly and hazel are both present in the understory along with frequent holly regeneration amongst the ground flora. Rich ground flora of Wood sorrel but otherwise bare ground/leaf litter in winter. There is an unidentified fern of note (not bracken). There is a foot bridge in this compartment. |

| Year | Activity |
|--------------------------|------------------|
| 2 | selectively thin |
| 6-10, 11-15, 16-20 | selectively thin |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|--------------------------------|---------------|-------|--------|----------------------|---|
| 50% | Oak | 1870 | 77 cm | 28 m | 22.16 m ² |  |
| 30% | Ash - Fraxinus excelsior | 1950 | 32 cm | 0 m | 2.3 m ² |  |
| 10% | Sycamore | | 23 cm | 0 m | 0.4 m ² | |
| 5% | Birch (Silver)- Betula pendula | 1970 | 42 cm | 0 m | 0.66 m ² | |
| 5% | Cherry - Prunus avium | 1970 | 47 cm | 0 m | 0.83 m ² |  |

| | |
|------------------|----------------------|
| Total basal area | 26.35 m ² |
|------------------|----------------------|

| | |
|-------------------|-----------------------|
| Basal area per ha | 101.35 m ² |
|-------------------|-----------------------|

woodland: Besselsleigh Wood

compartment: 2b



Area: 0.71 ha

Stocking density: 550 trees per hectare

Management Notes

Avoid felling/ thinning for the time being (except for singling any stored coppice) and consider action in the light of Chalara (ash dieback).

Management History

Rich area of dogs mercury, wood sorrell, dog violet, ground ivy, soft rush, gypsywort, nettle, bracken, bramble, cleavers, unidentified fern, holly regeneration is present.
Standing and fallen deadwood is present in the compartment and the boundary has been built up with a lop & top bund.

| Year | Activity |
|------|----------|
| | |
| | |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------|---------------|-------|--------|----------------------|---|
| 65% | Ash - <i>Fraxinus excelsior</i> | 1950 | 34 cm | 29 m | 23.05 m ² |  |
| 30% | Sycamore | 1950 | 34 cm | 18 m | 10.64 m ² |  |
| 5% | Oak | 1870 | 0 cm | 0 m | 0 m ² |  |

| | |
|-------------------|----------------------|
| Total basal area | 33.69 m ² |
| Basal area per ha | 47.45 m ² |

woodland: Besselsleigh Wood

compartment: 2c



Area: 0.32 ha

Stocking density: 325 trees per hectare

Management Notes

Apply a light crown thin to favour the best stems.

Management History

Ground flora of dogs mercury, ground ivy, herb robert, ash, oak & holly regeneration, largely bare ground (winter only).

| Year | Activity |
|------|--|
| 6-10 | Selective crown thin to remove 20% of stems. |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------|---------------|-------|--------|----------------------|---|
| 90% | Oak | | 75 cm | 30 m | 41.35 m ² |  |
| 10% | Ash - <i>Fraxinus excelsior</i> | | 41 cm | 0 m | 1.37 m ² | |

| | |
|-------------------|----------------------|
| Total basal area | 42.72 m ² |
| Basal area per ha | 133.5 m ² |

woodland: Besselsleigh Wood

compartment: 2d



Area: 0.95 ha

Stocking density: 500 trees per hectare

| Management Notes |
|---|
| <p>This is a relatively poorly performing compartment, due to the limited quality of the stand. Soil appears good. Candidate for felling/restocking. Firewood is being harvested from this compartment. Most of the area is natural regeneration of mediocre form/possibly useable. There is an inadequate scattering of parent trees. Recommendations for this compartment are to enter into a regeneration regime</p> |

| Management History |
|---|
| <p>Ground flora includes dogs mercury, wood avens, frequent pendulous sedge indicates this is a moist area of the woodland There is a good deal of deadwood, standing and fallen.</p> |

| Year | Activity |
|-------|--|
| 4 | Selective fell retaining anyu resistant ash and replant with mixed native broadleaves to 1600 trees/ha, accepting surviving ash regeneration |
| 16-20 | Apply first thinning/respacing as required |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------|---------------|-------|--------|----------------------|---|
| 60% | Ash - <i>Fraxinus excelsior</i> | | 44 cm | 26 m | 43.34 m ² |  |
| 20% | Oak | | 74 cm | 0 m | 40.86 m ² | |
| 5% | Cherry - <i>Prunus avium</i> | | 32 cm | 23 m | 1.91 m ² |  |
| 15% | Sycamore | | 50 cm | 0 m | 13.99 m ² | |

| | |
|-------------------|-----------------------|
| Total basal area | 100.1 m ² |
| Basal area per ha | 105.37 m ² |

woodland: Besselsleigh Wood

compartment: 2e



Area: 0.38 ha

Stocking density: 100 trees per hectare

Management Notes

Oak standards with younger ash in the canopy and some poorly formed sycamore. There is some firewood harvesting taking place in this compartment.

There is a good amount of standing dead wood present.

No new action for the period of the plan.

Management History

| Year | Activity |
|------|----------|
| | |
| | |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|------------------------------------|---------------|-------|--------|---------------------|---|
| 55% | English Oak - <i>Quercus robur</i> | | 72 cm | 24 m | 8.51 m ² |  |
| 35% | Ash - <i>Fraxinus excelsior</i> | | 36 cm | 27 m | 1.35 m ² |  |
| 10% | sycamore | | 16 cm | 0 m | 0.08 m ² | |

| | |
|-------------------|----------------------|
| Total basal area | 9.94 m ² |
| Basal area per ha | 26.16 m ² |

woodland: Besselsleigh Wood

compartment: 2f



Area: 0.71 ha

Stocking density: 450 trees per hectare

Management Notes

Mature oak wood with younger ash reaching the canopy. Some hazel understory present along with poorly formed sycamore. The canopy is very open in this compartment (40% open) and overall management should include restocking.

This compartment is a focus for community activity in forest school and wood harvesting with large areas of the field layer covered with stacked timber and dead wood piles. There is continued potential for firewood and possibly good future timber in the oak which shows good form (some is heavily but evenly burred).

Respond to the effects of Ash dieback as advised.

High levels of holly regeneration lead to a concern about future holly understory development.

The open canopy has led to a field layer of bluebell and in damper areas near the ditches wood sorrel and pendulous sedge are also present.

There are many nest holes evident in the older oak and some may have the potential to be veterans in the future.

Great spotted woodpecker heard on day of survey 25/1/12

There is seasonal (winter) inundation in the ditch to the western edge

Management History

| Year | Activity |
|------|----------|
| | |
| | |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|-----------------------------|---------------|-------|--------|----------------------|---|
| 70% | English Oak - Quercus robur | 1870 | 73 cm | 28 m | 93.61 m ² |  |
| 30% | Ash | | 24 cm | 26 m | 4.34 m ² |  |
| minor | Sycamore | | 12 cm | 18 m | 0 m ² |  |

| | |
|-------------------|-----------------------|
| Total basal area | 97.95 m ² |
| Basal area per ha | 137.96 m ² |

woodland: Besselsleigh Wood

compartment: 2g



Area: 0.38 ha

Stocking density: 460 trees per hectare

Management Notes

This compartment is adjacent to 2f where most of the forest schools activity is taking place. The compartment is very similar in composition to 2f with some subtle differences.

The canopy is more closed, there is more bare ground in the field layer, the frequency of hazel increases as does the holly which is also more mature in this compartment with trees up to 12m. Close to the western edge there is also birch present where the ground lowers toward the stream.

No action within 5 years, review in the light of Chalara.

Management History

| Year | Activity |
|------|----------|
| | |
| | |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|------------------------------------|---------------|------|--------|------------------|------|
| 40% | English Oak - <i>Quercus robur</i> | 1970 | 0 cm | 0 m | 0 m ² | |
| 40% | Hazel - <i>Corylus avellana</i> | | 0 cm | 0 m | 0 m ² | |
| 15% | Ash - <i>Fraxinus excelsior</i> | | 0 cm | 0 m | 0 m ² | |
| 5% | Hornbeam - <i>Carpinus betulus</i> | | 0 cm | 0 m | 0 m ² | |

| | |
|-------------------|------------------|
| Total basal area | 0 m ² |
| Basal area per ha | 0 m ² |

woodland: Besselsleigh Wood

compartment: 2h



Area: 0.15 ha

Stocking density: 400 trees per hectare

Management Notes

Similar in composition to the neighbouring compartment 2F immediately to the south with a denser hazel understory. This compartment also contains the original hazel replanting of 2002.
No action within 5 years

Management History

| Year | Activity |
|------|----------|
| | |
| | |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|------------------------------------|---------------|-------|--------|----------------------|------|
| 100% | English Oak - <i>Quercus robur</i> | 1970 | 94 cm | 30 m | 41.64 m ² | |

| | |
|-------------------|----------------------|
| Total basal area | 41.64 m ² |
| Basal area per ha | 277.6 m ² |

woodland: Besselsleigh Wood

compartment: 2i



Area: 0.62 ha

Stocking density: 250 trees per hectare

Management Notes

Oak standards with a hazel understory of varying ages and at different stages of cutting.
 The ground flora is particularly rich in areas with dog violet, wood sorrel, wood avens, dogs mercury
 This compartment contains a large open area which is dominated by bracken and some Himalayan balsam
 There is a good amount of standing and fallen dead wood of varying sizes.
 Restore coppice and clear hung up trees, in order to open up the nw portion of this compartment to bring in more light. Yr.1 & 2. Improve signage. Improve path.

The hazel work that is going on includes some young/recently coppice which is protected by fencing with a healthy 2m regrowth. Some young pollarded hazel along the northern edge of the compartment at 1mx1m spacing shows mortality in the regrowth (approx every thrid tree the regrowth has perished). This is of concern.

Some young ash has been planted (and sheltered) but shows considerable deer damage.

Management History

| Year | Activity |
|--------------------------|------------------------------|
| 1 | Clear hung up trees |
| 1, 2 | Restore coppice. |
| 1, 2 | Improve the footpath surface |
| 1, 2 | Review signage & report |
| 1, 2, 3, 4 | Pull himalayan balsam |
| 6-10, 11-15, 16-20 | Coppice/low pollard hazel |
| 6-10, 11-15, 16-20 | pull himalayan balsam |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|------------------------------------|---------------|-------|--------|----------------------|---|
| 95% | English Oak - <i>Quercus robur</i> | 1870 | 77 cm | 25 m | 68.57 m ² |  |
| 5% | Ash | | 10 cm | 0 m | 0.06 m ² | |

| | |
|-------------------|-----------------------|
| Total basal area | 68.63 m ² |
| Basal area per ha | 110.69 m ² |

woodland: Besselsleigh Wood

compartment: 2j



Area: 0.18 ha

Stocking density: 1100 trees per hectare

Management Notes

formative prune and respace (to remove competing willow) around favoured species

Management History

| Year | Activity |
|------|----------|
|------|----------|

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------|---------------|------|--------|---------------------|---|
| 30% | Ash | 2002 | 5 cm | 3 m | 0.12 m ² |  |
| 30% | Oak | 2002 | 5 cm | 3 m | 0.12 m ² |  |
| 20% | Cherry | 2002 | 5 cm | 4 m | 0.08 m ² |  |
| 20% | Willow | 2002 | 5 cm | 4 m | 0.08 m ² |  |

| | |
|-------------------|---------------------|
| Total basal area | 0.4 m ² |
| Basal area per ha | 2.22 m ² |

woodland: Besselsleigh Wood

compartment: 3a



Area: 0.27 ha

Stocking density: 500 trees per hectare

Management Notes

Soils in this compartment range from a brown clay to a black peat. The ground is damp and boggy which would restrict extraction. The hazel is uncut.

The field layer comprises dogs mercury, lords and ladies, ground ivy, bugle, pendulous sedge, herb robert, mouse ear, honeysuckle, bramble and cleavers. There is also a good variety of bryophytes and lichens.

There is a large area invaded by Himalayan Balsam, to be pulled annually.

There is potential for firewood production here on a small scale with extraction possibly by hand.

Layer small-leaved lime to increase numbers present.

Management History

| Year | Activity |
|--------------------------|-------------------------|
| 1, 2 | Layer small-leaved lime |
| 1, 2, 3, 4 | Pull himalayan balsam |
| 6-10, 11-15, 16-20 | Pull himalayan balsam |

Inventory

| composition | species | planting year | dbh | height | basal area | form |
|-------------|---------------------------------|---------------|-------|--------|----------------------|---|
| 70% | Alder | 1960 | 44 cm | 25 m | 14.37 m ² |  |
| 20% | Willow | | 26 cm | 25 m | 1.43 m ² |  |
| 5% | Sycamore | 1990 | 16 cm | 15 m | 0.14 m ² |  |
| 5% | Hazel - <i>Corylus avellana</i> | | 0 cm | 0 m | 0 m ² | |

| | | | | | | |
|-------|--|--|------|-----|------------------|--|
| minor | Lime (Small-leaved) - <i>Tilia cordata</i> | | 0 cm | 0 m | 0 m ² | |
|-------|--|--|------|-----|------------------|--|

| | |
|-------------------|----------------------|
| Total basal area | 15.94 m ² |
| Basal area per ha | 59.04 m ² |