Appendix 1: Legislative Background to 'Best Practice'

A number of woodland sites may have already been researched in the past, either as part of a detailed historic or archaeological landscape survey or as part of a management plan. More usually, the first time an interest is taken in a wood is when active management - be it traditional or commercial - is to be reintroduced or resumed. This is usually as part of a grant scheme, such as the former Woodland Grant Scheme (now EWGS) or as part of an environmental stewardship project.

Statutory Protection

Archaeological sites which are statutorily protected, (under the 1979 Ancient Monuments and Archaeological Areas Act), will usually have a management agreement in place drawn up by English Heritage and the woodland owner. This agreement will set out the best way to preserve the feature in woodland, and identify the programme of work needed to prevent damage or further damage to the site. These agreements are reviewed every five years.

Ecological sites - NNRs, SSSIs, SNCIs, TPOs and species protected under the Wildlife & Countryside Act 1981; Countryside and Rights of Way Act 2000; EC Council Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, 1992. See also Planning Policy Statement 9 (PPS 9): Biodiversity and Geological Conservation (2005).

English Woodland Grant Scheme

The Forestry Commission's England Woodland Grant Scheme (EWGS) was introduced in 2005, replacing the former Woodland Grant Scheme (WGS). The EWGS comprises six grants depending on the type of management to be undertaken: ¹

Woodland Planning Grant – This grant contributes to the costs of producing management plans for existing woodlands that meet the planning requirements of the UK Woodland Assurance Standard.

Woodland Assessment Grant – The Forestry Commission may consider that further information is required before decisions can be made about work in a woodland. Woodland Assessment Grant contributes to the standard costs of undertaking these specified assessments, which can include a 'Historic and Cultural Assessment'.

Woodland Regeneration Grant – One of the greatest opportunities to change a woodland is when felled areas are regenerated, whether by planting or by natural seeding. This can improve both the woodland's delivery of benefits to the public and its capacity for sustainable management. Woodland Regeneration Grant contributes to the costs of making changes to the composition of woodland within the normal cycle of felling and woodland regeneration.

Table 4. 'Criteria' and 'Indicators' for the UK Forestry Standard ³

Criteria for Sustainable Forest Management [SFM]	Source of National Level Indicators	National SFM Requirements	Forest Management Unit Indicators. Evidence that:
Conservation of Heritage Features.	Surveys and Registers of ancient monuments. Reports of damage to ancient monuments. Woodland aspects of rural countryside character and landscape assessments. Survey reports for special areas, e.g. National Parks, moorlands, coastal plains.	Important heritage features are protected. Due account is taken of cultural, historic or designed landscapes. Landscape quality is enhanced.	Important sites are clearly recorded. Sound principles for integrating archaeological sites in woodland are adopted. Archaeological sites are protected and damage is avoided. Landscape principles of forest design are used. Cultural and historical character of countryside is taken into account when creating new woods and when making changes to existing woods.

Woodland Improvement Grant – This grant funds capital investment in woodlands, over an agreed period, to create, enhance and sustain an increase in the quantity and quality of public benefits delivered.

Woodland Management Grant – This grant aims to encourage low key, sustainable woodland practice. It is designed to protect the delivery of existing benefits to the public and improve the capacity of the woodland to increase these.

Woodland Creation Grant – This grant supports the establishment of new woodlands that meet national and regional priorities. The grant is available on a competitive and regional basis, using scoring systems that select applications based on best fit with the public benefit priorities.

Forestry Guidelines

The Helsinki Guidelines (1993) Resolution 1 – General Guidelines for the Sustainable Management of Forests in Europe – 6 "Forest Management Practices should have due regard to the protection of... areas of cultural heritage, and the landscape".

The 'Pan-European Criteria' (1994) following the Helsinki Guidelines are "...maintenance of other socioeconomic functions and criteria" ².

UK environmental guidelines covering aspects of forestry were already in place before 1993. The guidance was built on the Basic Resources of Forestry using 'criteria' and 'indicators' to produce the UK Forestry Standard. "Cultural Resources – Heritage and Landscapes – People recognise the value of artefacts and amenities found in forests. There is also a fundamental association between our culture (past and present socio-economic activity) and the landscape, where woods often play a significant role".

Extracts relating to the cultural heritage from "UK Forest Standard – Achieving Good Practice in UK Forests" (1998):

Archaeology and Cultural Heritage

Scheduled Ancient Monuments and their settings are protected by law. These and other important archaeological sites, and historic and cultural features should be protected. Our links with, and understanding of, the past, and our appreciation of the present are thereby maintained. Woodland can obscure many of these features and the best opportunities for identifying and incorporating them in the woodland plan occur at initial planting. Unscheduled sites are described and mapped on local Sites and Monuments Records held by County Archaeologists (England)... These organisations may have - or know of - old maps or aerial photographs which show the history of the site. They can also advise on general areas of archaeological interest where

less obvious, possibly buried, features require expert survey before planning a new woodland. Local archaeological societies are another source for information and will sometimes be able to give assistance in marking out sites and in archaeological surveys.

Examples of the variety of archaeological and historic features are:

Signs of ancient habitation, burial and fortification; Standing stones;

Isolated ruins, deserted farming communities, bridge and ford sites;

Memorial stones, boundary stones and mile stones; Boundary banks, ditches and walls of political or past management significance;

Individual trees, hedges, avenues, clumps of trees, and woods of historical interest or which are traditional landmarks; Sites of old mills, kilns and early mining activity; Recent structures or artefacts of potential interest to future generations.

Proportionately, very few woodlands have been systematically surveyed and recorded. In the past, archaeological investigation and research have been concentrated in areas where either the resource has been rich or where development has necessitated detailed rescue recording and excavation, usually under the policy guidance of PPG15, (currently under review as PPS15). As a consequence, few non-scheduled woodland archaeological sites are recorded on the county Sites and Monuments Record (SMR). As already described, woods preserve a whole range of archaeological features, most of which do not fall into the criteria for scheduling. Some wood banks around ancient woodland sites may be as old as the local parish church (which in all probability is Listed Grade I or Grade II*). Therefore, relying on the county SMR as the source of archaeological features can be misleading. Only by undertaking an archaeological survey (or site check) ahead of planning forestry and woodland management can the woodland owner be sure of taking due care and regard for the cultural resource of the wood as stated in UK Forestry Standard Note 1 (see below).

The UK Forestry Standard states that the 'Woodland Plan' is an essential management tool. It may build on the detail included in a grant scheme or Forest Plan proposals but should incorporate additional information and make provision for keeping records and for revision.

Extracts relating to the cultural heritage taken from 'The UK Forestry Standard' with qualifying statements (in brackets and italics).

Standard Note 1 - General Forestry Practice

Precautions applying to all types of operation

 Make specific arrangements for the protection of archaeological sites, protected habitats and protected species of wildlife. If discoveries are made in the course of operations avoid further disturbance and obtain expert advice.

Planning and preparation for forest operations

- Make sure that site planning and the conduct of operations take due account of possible on-site and external impacts e.g. to ancient monuments, access routes, downstream areas, wildlife and people. (Undertake an archaeological assessment of the whole wood, recording features and annotating a site map, together with reference to historic maps and to the county SMR).
- Check and comply with any requirement by a Government body or statutory undertaker for notification or consultation, and decide whether neighbours need to be notified (for scheduled monuments the county or regional English Heritage Field Monument Warden and Inspector for Ancient Monuments see Useful Contacts section). For non-scheduled sites contact the County Archaeologist. For wildlife and habitats contact the regional office of Natural England. (It is an offence to damage or disturb protected species and their habitats).
- Make sure that staff and contractors clearly understand safety precautions, plans for the protection of the environment and emergency procedures. (Archaeological features can be very difficult to see in woodland; some earthworks are very subtle. If necessary walk people around the site to familiarize them with the cultural resource. Mark or tape off features prior to active management).

Cultivation and Drainage

• Avoid damage to the hydrology of wetlands of conservation or heritage value and take opportunities to restore those previously drained but which have not been successfully replanted. (Avoid siting new drains through archaeological sites and especially boundary features. Waterlogged

areas are important sites for stratified palaeoarchaeological remains, where information on past land use and environment are preserved in organic deposits. Their preservation relies on maintaining a high, non-fluctuating water table, where the chemical equilibrium of the water remains stable. These sites include bogs, marshes, former ponds, moats etc. Avoid cleaning out ponds etc. without first consulting with a professional archaeologist. Spoil and silts from pond and ditch cleaning should not be dumped on archaeological sites).

Establishment and Protection

Open space - see SN2.

(Plan areas of open space, which are not going to be used for recreation, access, timber storage etc, to include formerly wooded archaeological sites. Manage these sites as glades for wildlife).

Planting and natural regeneration. (Avoid planting new trees and where possible prevent regeneration on archaeological sites and features).

Protection and Maintenance

- Use fertilisers, pesticides and herbicides according to the specific needs of the site. Select products approved for use in that situation and apply at recommended rates, limiting application to the target area. (Avoid use of chemicals on archaeological sites as they can lead to chemical deterioration of sub-surface stratified deposits, especially organic and metal artefacts).
- Erect and maintain fences on alignments which respect the landscape, public rights of way and other access routes, and adopt good practice to minimise undesirable impacts on wildlife such as badgers, deer and woodland grouse. (Avoid erecting fence posts across or along archaeological earthworks, including boundary earthworks. Digging holes or banging in posts damages the structure and any below ground stratigraphy of the feature. Do not attach fences to trees using nails, staples,x etc. Do not use living trees as fence posts. Not only does this allow disease into the tree, the metal becomes embedded and is then a danger when using machinery, especially chainsaws or circular saws to manage the tree).
- Ensure that ride, road edge and open space management regimes promote, or are sympathetic to, wildlife conservation, especially where they support rare or endangered species. (*This also follows for any archaeological sites on*

or adjacent to rides, etc. Avoid cutting vegetation when the ground conditions are wet to avoid compaction).

• Keep important archaeological sites clear of natural regeneration of trees and shrubs. (By undertaking an archaeological assessment and record of the wood, an idea of what are important archaeological sites will be obtained. Basically wherever possible avoid regeneration on all known features and sites).

Tree harvesting operations

Harvesting operations can also have a very significant environmental impact on the forest. Good silviculture and cost-efficiency must be combined with care for people and the environment.

The timing of the operation will usually be determined by financial or market considerations and the availability of expertise and equipment. However, timing must be adjusted to protect certain species, especially in their breeding season. If in doubt, the nature conservation agencies should be asked for advice. (Felling and extraction near and on archaeological sites should not be undertaken when the ground conditions are unsuitable, usually when the ground is wet or after periods of heavy precipitation).

- Select equipment and methods which will allow all parts of the site to be harvested without danger to people or the environment (tracked vehicles are generally less damaging to the ground surface than wheeled vehicles).
- Make allowance for changes in weather and therefore site conditions during the operation.
- Identify any improvements needed for satisfactory machine access, stacking and refuelling (plan these areas away from archaeological sites and features).
- Decide how to safeguard sensitive or easily damaged parts of the site and ensure that only the intended trees and shrubs are felled. (*Tape or mark off archaeological features to avoid accidental traversal by machines. If necessary place layers of brash over sites during harvesting and remove immediately the operations are completed*).
- Plan any necessary bonfire sites away from archaeological sites. The intense heat can penetrate the ground and damage stratified deposits.

Control of harvesting operations

- Do not allow trees to be felled into watercourses and immediately remove any accidental blockages caused by the operation.
- Prevent erosion by using brash mats and culverts to avoid rutting and blocked drains.
 Take prompt remedial action if an erosion risk becomes apparent.
- Clear drains as extraction progresses through each part of the site.
- Remove temporary culverts as soon as machine operations in felling and restocking are complete.
- Keep harvesting machinery off archaeological sites and operate within the restrictions planned to protect other sensitive areas.

Forest roads and tracks

- Avoid archaeological sites and disturbance of protected habitats and species.
 (Also avoid using historic and old access tracks as new forest roads and rides, especially where it is likely the road will damage any boundary features, old culverts and associated archaeological features).
- Incorporate turning points, loading and passing bays in the design of any road intended for later harvesting. (Ensure these sites are not located on or adjacent to archaeological sites and features).

Standard Note 2 - Creating New Woodland

Ensuring the location is suitable

Planting woodland on land not previously managed as woodland and which is not a protected habitat. An assessment of the archaeological potential of the area to be planted should be undertaken. Statutorily protected archaeological sites should not be planted with trees. Non-protected archaeological sites ideally should also not be planted up. Where possible, the history of the past land use should be taken into account - historic hedgerows and field patterns should be preserved within any new planting. Former field boundaries used as forest compartment boundaries. Ponds and other cultural features should be preserved within the new wood and perhaps made a focal feature, providing this does not attract intense use, for example for recreation.

General forest design

- Incorporate designated and protected sites sensitively into the design (also non-protected archaeological sites and features).
- Allow for 10 20% open space within the area. Open space, including streams, ponds and well laid out roads and rides, should be used to encourage the development of wildlife habitat. (Where possible, combine open spaces with archaeological sites, but minimise any potential damage from recreational use of the open space).

Standard Note 3 - Creating 'new native woodland'

New native woodland can be created on previously wooded land as a replacement to non-native woodland (*PAWS restoration*) or on land which historically was once woodland but has subsequently been used for farming or other land use activities.

Choosing a suitable site

Where possible, replant or allow woodland to regenerate on land which historically was once woodland at one time. Follow historic boundaries and avoid archaeological sites and features which are the result of subsequent land use, such as former settlement sites.

Design for development of a semi-natural ecosystem

The design of open ground is particularly important. Wherever possible it should be based on features of conservation potential and site diversity, including archaeological sites (take account of the local historic character of the area, the shape, pattern and form of adjacent seminatural woodlands).

Use of natural colonisation and planting

Avoid natural regeneration and planting on archaeological sites.

Site preparation and maintenance

 Avoid intense cultivation, ploughing and drainage. Irregular scarifiying and mounding are acceptable (except in areas of archaeological potential and over possible buried sites).

Standard Note 4 - Felling and Restocking planted woodland

Planning felling and restocking: preparation of a forward plan

 Take account of the effect of land designations, important archaeological sites, protected habitats and species, water and other issues.

See the notes under SN1 and SN2 above.

Standard Note 5 - Managing Semi-natural Woodland

The guidance given in the sections above also follows for SN5.

Grazing and browsing

Maintaining low to moderate densities of wild and/or domestic herbivores is usually desirable for maintaining the ecological diversity of semi-natural woodlands. (Historically, grazing was sometimes permitted in enclosed woods following a period after the last coppice cut - such as 7 years. The landscape of the Weald was shaped by the practice of transhumance – where stock, especially pigs, were driven in the autumn to feed on 'oak and beech mast' before being taken back to the home settlement for slaughter for winter. In both cases the grazing was low and controlled. Fencing stock in woodland for long periods and during unsuitable ground conditions leads to severe damage to the ground flora, regeneration and archaeological features).

Standard Note 6 - Planting and Managing Small Woods

Woods up to 5 hectares in lowlands and includes long narrow woods, shelter belts and clumps of trees.

The guidance given in the sections above also follows for Standard Note 6.

Footnotes

- ¹ Forestry Commission (2005) English Woodland Grant Scheme Applicant's Pack. Forestry Commission, Cambridge
- 2 Forestry Authority (1998) The UK Forestry Standard. The Government's Approach to Sustainable Forestry. DANI. Forestry Commission, Edinburgh ibid pp.7-11. $2^{\rm nd}$ Ed 2004

³ Ibid p.18