

Practical Guidance

# Restoring your ancient woodland:

Guidance and training



WOODLAND  
TRUST

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## INTRODUCTION

### What is ancient woodland?

Ancient woodland is an umbrella term which refers to a number of the UK's most valuable, wildlife-rich habitats.

Ancient woods are woods that have existed since at least 1600 in England and Wales, and 1750 in Scotland. Since few woodlands were planted during the medieval period and before, it's likely that those recorded on maps from this time are in fact much older.

All ancient woodlands in the UK have probably been managed by humans at some point over their long history, and this management will have influenced their ecology. As they can no longer be considered completely natural, they are referred to as Ancient Semi-Natural Woodland (ASNW), since they are modified by human influences, but retain many natural features.

ASNW only covers approximately 2% of the land area of the UK, and because it takes hundreds of years to develop, it can't be recreated. Once these woods are gone they are lost forever.

Every single acre of ancient woodland that remains is vitally important to the ecology and wildlife of the UK, and we all have a role to play in protecting them, particularly their owners and the people who manage them. We have produced a number of guides to help land managers make the best decisions to manage and protect their ancient woodlands. We also deliver subsidised training courses, both online and face to face, based on these guides.

This is an introductory summary of these guides, what they cover and where you can find them, as well as how you can access the associated training.

## MODULE 1:

# Ancient woodland restoration – management principles

The ultimate aim is to maximise the ecological integrity of woodlands, making them more robust and with increased connectivity between them.

Timber, or wood fuel production, can preserve woodlands' economic value during the restoration process.

The five principles of restoration management are:

1. Ancient woodlands are complex and irreplaceable; once damaged they require positive action to restore them.
2. Without this positive management ancient woodlands can become irreversibly degraded overtime.
3. All ancient woodlands, even ones which have been degraded, will contain some remnant features.
4. These remnants will respond positively to the management of light levels.
5. Restoration is a long term process.

There are four classes of remnant feature that we look at. The restoration process aims to protect these features while work progresses and create the right conditions to enable biological features to spread throughout the woodland once work is completed.

Restoration begins by conducting a baseline survey to identify remnant features, highlight any threats to those features, and suggest management options to protect them. The survey also identifies the overall condition of the woodland (whether critical, threatened or secure) and the direction of travel (declining, no change or improving). The restoration process then follows a number of steps:

**Phase 1** – Reduce the immediate impact of threats to prevent the woodland degrading further.

**Phase 2** – Restore the wider ecosystem through the conversion to native trees and shrubs.

**Phase 3** – Enhance the ecological integrity by replacing missing processes to create more veteran trees, dead wood and ecological dynamism.

One of the most important characteristics of ancient woodland are its soils that have remained undisturbed for centuries. They contain very high levels of biodiversity and are also the largest carbon sink in the entire wood, sequestering more carbon than the trees themselves. It is vital that soils are protected from disturbance throughout restoration operations.

Read the full guidance at [woodlandtrust.org.uk/module1](https://www.woodlandtrust.org.uk/module1).

By gradually thinning non-native conifers, light is allowed to reach the woodland floor, encouraging the regeneration of native broadleaves.



## MODULE 2

# Ancient woodland restoration – survey and assessment

Assessment of the woodland must be based on the level of threat from sources including shade, tree pests and diseases, grazing and browsing, invasive species, windthrow, and non-native regeneration. Threat is based on three different levels:

- 1. Critical** – Without further activity it's likely that there will be a complete loss of remnant features in an area within a relatively short period.
- 2. Threatened** – Although remnants are unlikely to disappear in the short term the woodland is however still degrading, and remnants will be lost in the medium to long terms. Certain ecological processes may also be inhibited.
- 3. Secure** – The remnants are in robust condition but not all ecological processes may be functioning optimally.

The survey begins with a desk-based exercise to establish site boundaries, check the Ancient Woodland Inventory to confirm classification, locate existing wildlife survey data, and to check the historic features map to identify archaeological remains. This is followed by a full site survey which uses ecological monitoring techniques to identify and assess the condition of any surviving remnants.

Information gathered in these surveys is used to create management recommendations which mitigate the identified threats and can be integrated into future management plans. Management operations need to be prioritised in the order that they are carried out.

**Priority 1** – Critical works to offset the immediate risks.

**Priority 2** – Pressing work on critical or threatened areas, which need to be carried out within 1 year.

**Priority 3** – Works on threatened stands which need to be completed within 1-3 years.

**Priority 4** – Medium priority work which may carry over into the next management plan period and needs to be completed within 3-5 years.

**Priority 5** – Long-term priorities which need to be completed in 5+ years.

Read the full guidance at [woodlandtrust.org.uk/module2](http://woodlandtrust.org.uk/module2).

Contractors at work in an ancient woodland.



## MODULE 3

# Ancient woodland restoration – halting further decline

This module is concerned with the first phase of restoration and provides general guidance to support the decision-making process. However, as each wood is different, it's worth getting additional advice from a Woodland Trust adviser or consultant.

Phase 1 of restoration addresses the critical areas of the woodland and aims to halt any further decline through a series of targeted operations. This urgent first aid ensures that remnants are maintained in the short term and are robust enough to withstand further management operations.

There is a need to set clear objectives and include operations such as targeted felling, halo thinning to reduce shading of remnants, and more extensive selective felling where remnants are more scattered. It may require the control of invasive species such as rhododendron or Himalayan balsam as well as livestock and deer management to allow the regeneration of native tree species.

You may have to consider protected and priority species and have to consult the relevant statutory body and/or a qualified ecologist. In addition, work on designated sites, Sites of Special Scientific Interest or Scheduled Ancient Monuments will need approval from the relevant statutory body before work can begin. A felling licence, or in certain parts of the UK an approved management plan, may be required for the removal of more than 5m<sup>3</sup> of timber.

Read the full guidance at [woodlandtrust.org.uk/module3](http://woodlandtrust.org.uk/module3).

Critical hotspots could include streamside habitats, often rich in ancient woodland flora.



## MODULE 4

# Ancient woodland restoration – recovery of the wider ecosystem

This module covers the second phase of restoration, driving the canopy toward predominantly native species with more structural complexity while minimising risk to ancient woodland remnants. This phase may also include objectives for further commercial timber production and wider utility use of the woodland. Any areas remaining in critical condition must be addressed as a matter of urgency.

During the planning for this phase it is essential to consider any operational constraints which will determine what is feasible, and what may be unviable economically. Objectives may need to be flexible with the need for adaptive management, reacting to conditions experienced on site.

Phase 2 of restoration needs to adopt a considered approach, including an understanding of the risks. The process itself should ideally be based on cycles of gradual thinning to control light levels and enable natural regeneration of native trees. In certain specific circumstances clear felling may also be appropriate.

Read the full guidance at [woodlandtrust.org.uk/module4](https://www.woodlandtrust.org.uk/module4).

Restoring the wider woodland ecosystem through gradual thinning methods. Mid-Wales.



## MODULE 5

# Ancient woodland restoration – maximising ecological integrity

This module covers the third phase of the restoration process: a vision for the future. The current degraded state of ASNW in the UK should not form a baseline for what we're trying to achieve. Instead we have the opportunity to embrace a new approach to creating a more resilient natural environment for the benefit of wildlife and people.

This stage of the process aims to create:

1. More old growth characteristics in the woodland
2. More veteran trees
3. More decaying wood
4. More open space and dynamism.

The process may also touch on both the continued presence and management of animals within the woodland, including domestic livestock and wild deer, which can be essential in creating and maintaining habitats.

Read the full guidance at [woodlandtrust.org.uk/module5](https://www.woodlandtrust.org.uk/module5).

Decaying wood is a critically important habitat which supports a rich diversity of associated species.



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## Training

Subsidised training based on these modules is open to all landowners, land managers, forestry advisers and industry professionals. The training, funded through the Green Recovery Challenge Fund, is available face to face or online.

For further details, or to talk about arranging a free site survey of your ancient woodland, please contact your local Woodland Trust adviser at [restoration@woodlandtrust.org.uk](mailto:restoration@woodlandtrust.org.uk).



# WOODLAND TRUST

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