

7. Woodland and trees

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Summary record of changes

Note of changes following final comments from the Kent Downs AONB Joint Advisory Committee/ Jan/ Feb 2021

Minor clarification of wording regarding sustainable timber

Removal of reference to a 'policy' – replaced with 'principle'

WT 10 wording slightly amended from 'master planning approach' to 'strategic, coordinated approach'

Our vision for woodland and trees in the Kent Downs AONB

In 2031... the characteristic Kent Downs network of woodland and trees is greater in extent and is conserved and enhanced for its landscape, wildlife and historic value as well as its

vital role in mitigating climate change and supporting nature recovery. Sustainably managed woodlands and trees are resilient to stressors such as pests, disease, visitor pressure and climate change, they provide inherent mitigation and adaptation to that change. Buoyant markets for woodland products support the productive, sustainable management of trees and woodlands; new woodland and tree establishment; high quality multi-functional management provides well-used places for leisure and recreation, health and wellbeing and are rich in characteristic wildlife.

7. Overview

The Kent Downs AONB is one of Britain's most wooded landscapes and it contains a nationally significant amount of ancient woodland. The woodland component of the landscape has its roots in the often poor clay with flints soils on valley sides or steep slopes which are difficult to farm, woodlands have been retained in some of the sporting estates. Woodland covers around 23% of the AONB and is the second largest land-use after farming, tree canopy cover which includes trees outside woodlands in the Kent Downs.

Difference between England National Forest Inventory Map 2012 & England NFI Map 2018

(source: Forestry Commission 2020)

Interpreted Forest Types	Gained 2012-2018 (ha)	Lost 2012-2018 (ha)	Net (ha)
Assumed woodland	4.40	1.69	2.71
Broadleaved	82.48	40.02	42.46
Conifer	10.58	2.22	8.36
Coppice	3.40	0.00	3.40
Felled	0.64	0.00	0.64
Ground prep	1.11	1.59	-0.48
Low density	3.13	0.00	3.13
Mixed mainly broadleaved	1.07	0.00	1.07
Mixed mainly conifer	1.13	0.81	0.32
Young trees	19.91	11.76	8.15
Woodland	127.86	58.09	69.76

The highest woodland concentrations in the AONB are found on the Greensand Ridge between Sevenoaks and Tonbridge; along the chalk escarpment in West Kent; in large blocks in the mid Kent Downs; above the Stour Valley and in areas of the East Kent Downs plateaux. Much of the AONB's woodland comprises, fragmented sites in disparate ownership, a situation exacerbated by the increase of wood lotting (breaking up woods into multiple small ownerships). Wood lotting research in Kent has found some negative impacts; often woodland management is absent and the ability to manage woodlands as a whole can be compromised. However, new owners are often motivated to improve and understand woodland wildlife and heritage.

The declarations of climate and environmental emergencies has placed a new focus on woodlands and trees and in particular woodland and tree establishment – the Kent Downs AONB landscape can support more woodlands and in particular trees outside woodlands.

Trees and woodlands provide significant amenity and economic value, iTree surveys can assist in quantifying this benefit and in Kent a Natural Capital account is being prepared which will provide more information on the ecosystems services and value of trees and woodlands as well as other natural assets in Kent and the Kent Downs.

7.1 Ancient woodland

Whilst all woodland is important to the character and qualities of the AONB almost 70% of the Kent Downs woodland is ancient woodland, around 30% of this is plantation on ancient woodland sites (PAWS) (3,585ha); areas of ancient woodland where non-native species have been planted, generally in the 20th century. The careful, gradual restoration of PAWS sites to native species composition is a current priority for woodland management. The Forestry Commission strategy for ancient woodland is described in the <https://www.gov.uk/government/publications/managing-ancient-and-native-woodland-in-england>.

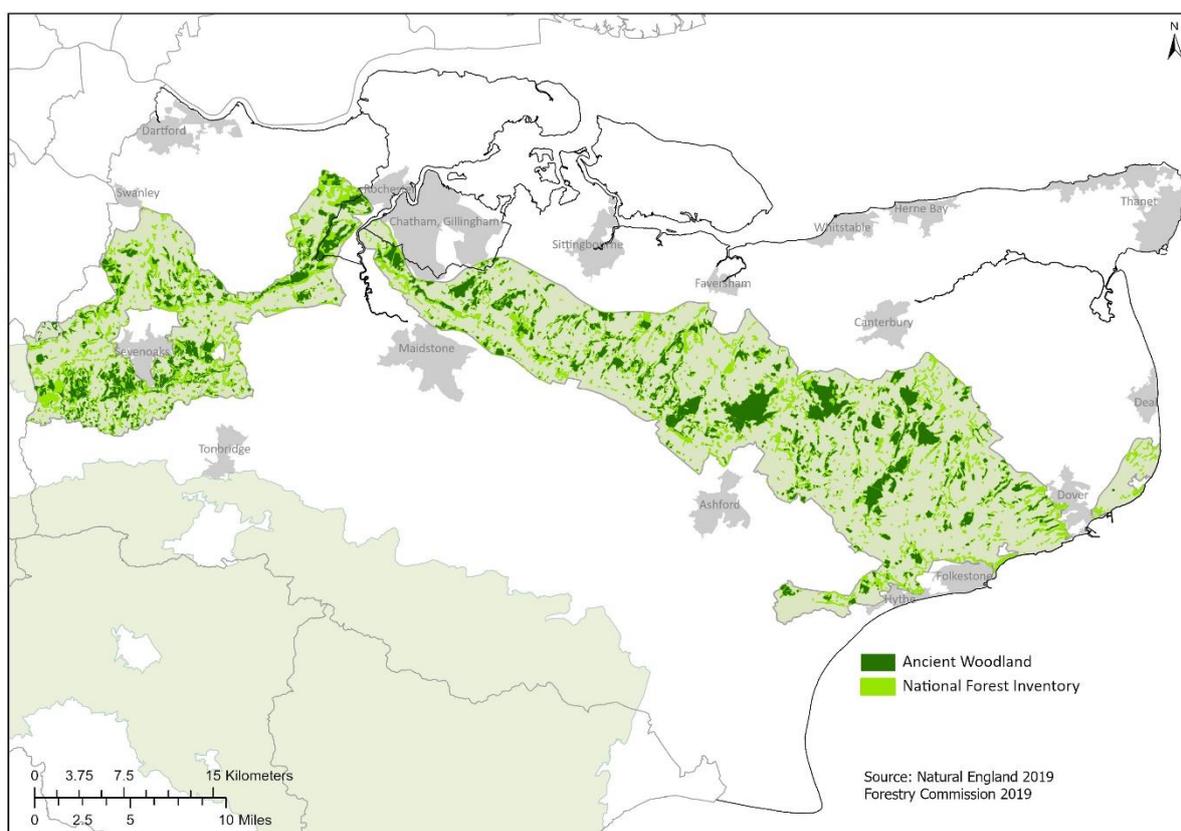


Figure 7.2 Woodland cover in the Kent Downs AONB

7.2 Tree pests and diseases

Ash is a particularly prominent tree in the Kent Downs AONB, both in the woodlands and hedgerows ash forms an important component of the landscape and was a major component of regeneration following the 1987 storm. The Kent Downs woodlands were one of the first areas in Britain to experience widespread infection from Ash Dieback (*Hymenoscyphus fraxineus*); the landscape implications are already serious with whole woodlands filled with dead and dying ash trees, trees outside woodlands dying and being felled and clear evidence that the impact is intensifying and spreading across the Downs. There is an

increasingly serious risk to the ecosystems services provided woodlands and the health and safety of the public and woodland workers in particular. The Kent Downs has been identified as an Important Ash Area by the Joint Nature Conservation Committee (JNCC), reflecting the prominence of Ash in the landscape and the associated nature conservation interest.

Ash Dieback is only one of many tree diseases and pests which are affecting or expected to affect the Kent Downs landscape; in the period of the last plan sweet chestnut blight and Oriental chestnut gall wasp have been recorded in Kent; *Phytophthora* spp have potential serious tree health implications; oak processionary moth has been extending from London into the Downs and in 2019 infected imported oak trees were intercepted in or near the Kent Downs. An important issue for the commercial woodlands is the eight-toothed spruce bark beetle (*Ips typographus*) which has been recorded in Kent; it is a serious pest of spruce with a potentially significant impact on the British forestry industry. Grey Squirrel have an important impact on the ability to produce high quality timber and various species of deer are reported to be increasing and spreading in the Downs affecting planted and regenerating trees and the woodland ground flora. The Government has published a Tree Health Resilience Strategy (2018) and Research Strategy for Ash Dieback (2019) along with an Ash Dieback tool kit which was developed by the Tree Council that have informed the drafting of the revised plan and provide a helpful strategic context but do not create a landscape recovery plan. It is important that woodland management to mitigate the impacts of pests and diseases is as carefully conducted as in other circumstances.

Tree planting and woodland establishment is an increasingly important priority nationally, there is a target to establish 30,000Ha of new woodland in England by 2025 and 30,000Ha across the UK every year until 2050. Ensuring the biosecurity of nursery trees is vitally important to ensure that more tree diseases are not established which are likely to vastly outweigh any benefit that new planting might bring; a bio-secure standard for nursery stock (Plant Healthy) was established in 2020. Trees can be very good at establishing themselves, especially where there are nearby appropriate seed sources; new planting is not always the best or most effective way to establish new woods or even trees outside woodlands, tree planting should be used where natural regeneration is not a viable option or the outcome would be detrimental, for instance where unsuitable seed trees are common.

7.3 Coppice woodlands

Throughout the AONB coppiced sweet chestnut is common, often planted into ancient woodland over the last two centuries. Historically sweet chestnut coppice was used for pit props in the east Kent coalfields and for fencing and hop poles. Latterly, as these industries declined, chestnut coppice went for hardwood pulp at the nearby paper mills which have now closed. Chestnut is still coppiced for high value fencing and more recently for the supply of wood chip for heat and fuel for Sandwich combined heat and power. Like ash, sweet chestnut is facing several diseases which may seriously affect its productivity and viability in the Kent Downs and there is concern about the future resilience of single species woodlands.

The continuation of coppicing is important for landscape and biodiversity conservation. Much of the AONB's woodland landscape was once characterised by blocks (cants) of coppice stools cut on regular cycles. Many ancient woodland animal and plant species require coppice management which cyclically opens up the woodland floor to light. Coppice with standards creates edges and mosaics of high canopy with taller and shorter coppice stands, providing a diversity of ecosystems within the woodland habitat. Establishing and managing

coppicing is difficult where deer populations are high because re-growth can be browsed off. It has been noted that deer populations in Kent woodlands are growing (The Deer Initiative); it is important to maintain deer numbers at a level that does not prejudice the re-establishment of coppicing the regeneration of trees and woodlands and the quality of the woodland ground flora..

The relatively new practice of 'wilding' taken forward to enhance biodiversity may be a way to emulate some of the beneficial effects of coppice for woodland diversity and create open areas in woodland, but is likely to detract from the potential for woodland products to be harvested.

In Kent, Sussex and Surrey there remains a coppice industry which, although small and threatened, is showing signs of resurgence and could provide a basis from which to return the coppice woodland of the Kent Downs to rotational management and thus continue a management tradition with origins in the Neolithic period.

7.4 Shooting in woodlands

The Kent Downs landform and landscape character makes its woodlands suitable for shooting, particularly pheasant shooting which is thought to be one of the most important economic drivers for woodland management. Where game bird management is poor the quality of woodland biodiversity is damaged and grey squirrel numbers can increase, at the same time game management can align with conservation aims where not intensive and doesn't restrict woodland management.

7.5 Climate change, trees and woodlands

Climate change puts a special focus on the woodlands of the Kent Downs. The Forestry Commission has identified a series of key impacts which include declining tree health and limited mortality in some native species but increasing productivity for others, particularly where water and soil nutrients are available, changes to ground flora, loss of drought sensitive species particularly on shallow soils, damage from extreme events and the expectation that forests and woodland will become increasingly seen as a cool shady refuge for healthy exercise, whilst public access to forests may be interrupted by closures due to storm damage, and roads and paths being washed away. Trees and woodlands are acknowledged to be important carbon sinks through the biomass of trees and in the associated soils. The use of timber in building and for other permanent uses is an effective way of 'locking' carbon dioxide and removing it from the atmosphere; using timber from coppice for heat and heat and power is a low carbon emissions source of energy (compared with fossil fuels), it encourages woodland management which is effective at accelerating carbon sequestration and is a sustainable supply of energy but does not 'lock' carbon. The wood fuelled combined heat and power plant at Sandwich has provided a major new demand point for timber grown in Kent (160K tonnes each year).

The Woodland Trust report 'Adapt or Die' suggests that beech, a feature in parts of the Downs, may no longer be viable in the Kent Downs by as soon as 2050, anecdotal evidence suggests that mature trees are most vulnerable to the climatic changes. Forestry Commission research indicates that the Kent Downs will be a refuge for lowland woodland types as climatic conditions change. Additionally sweet chestnut, being a species of Southern Europe, is likely to be well adapted to the predicted conditions and coppicing is thought to be a way to make the woodland ecosystem more resilient. The relatively single species nature of many chestnut woodlands makes them potentially less resilient to the predicted impacts of climate change as well as disease.

As part of the strategy to reach net carbon zero by 2050 the Committee on Climate change has recommended bringing 80% of woodland into active management by 2030, it has also promoted significant new tree planting across Britain. The Kent Downs AONB can accommodate new woodland, woodland expansion and in particular trees outside wood while, at the same time enhancing landscape character and providing other 'co-benefits' such as flood amelioration, wildlife enhancement, new economic forestry and new access opportunities. During the plan period a tree establishment strategy will be published for the Kent Downs AONB.

7.6 Forestry and woodland in public ownership

The Kent Downs AONB contains large areas of Forestry England owned land (1,560ha); much of this is plantation on ancient woodland sites (conifer and broadleaf); the policy position for which is to return to broadleaved woodland over time. Forestry England owned woodlands are popular with visitors and public usage can be high near urban areas. Kings Wood is home to the Stour Valley Creative Partnership collection of artist's interventions; several notable pieces appear on a sculpture trail albeit there has been limited commissions in recent years. There are several examples of community owned and managed woodlands in the Kent Downs and this enthusiasm is an important opportunity for the future sustainable management of the woodlands and trees of the AONB.

7.7 Health and wellbeing from trees and woodlands

Trees and woodlands have been demonstrated as providing many health and well-being benefits, Forest Research, for instance has identified key beneficial characteristics in its publication 'Trees and woodlands: Nature's health service', new approaches to woodland recreation for health and well-being, such as 'forest bathing', are increasingly popular and also have demonstrable benefits for participants. New research identifies the critical function of the vegetation of the Kent Downs, in particular trees and woodlands, in mitigating air pollution.

7.8 The canopy approach

The recognition of the importance of the whole tree canopy, not just woodland cover is growing. Woodlands and trees outside woodlands together provide an ecological and landscape network which is much valued for its scenic beauty but also for the functions, or ecosystems services it provides; supporting wildlife diversity, climate mitigation and adaptation, water management and clean air. There are significant challenges to the health and extent of the tree canopy of the Kent Downs in particular from tree disease and pests at the same time farming systems which integrate trees with other farm crops can be a way to extend and connect the canopy.

7.9 A Tree Champion and Tree Strategy

The Government has appointed Sir William Worsley as the Tree Champion with an agenda of setting a direction for the country's trees and woodlands over a 25 year period. More tree planting has been an important priority and it is expected that a draft England Tree Strategy will be published early in the plan period.

8 Woodland and trees - special characteristics and qualities

Woodlands and trees are a vital part of the Kent Downs' natural beauty, providing a green, tranquil mantle to the upper slopes of the escarpments and valleys. The woodlands emphasise the undulating nature of the dip slopes and scarp and frame the agricultural lower slopes and settlements. Individual, fine and ancient trees along with in field and hedgerow trees are an important, characteristic and sometimes dramatic element of the landscape. The woodlands and trees of the Kent Downs are much valued for the sights, sounds, wildlife, cultural meaning and narrative as well as for recreation, to improve health and well-being they provide.

Almost 70% (12,114 ha) of the Kent Downs woodland resource is ancient woodland (continuously present since at least 1600). The Kent Downs' ancient woodland is nationally significant representing (3.3%) of the total in England and Wales (Natural England, Ancient Woodland (England) Inventory).

Ancient woodland is irreplaceable and valued for its cultural, landscape and biodiversity importance and the products it supplies. Some ancient woodland may represent our only link with the original post glacial 'wildwood' and is more likely to contain vulnerable animal and plant species than any other habitat. Ancient woodlands can also include physical evidence of former landscape management practices. The rich but sensitive ground flora of ancient woodlands – bluebells, wood anemones, ramsons and yellow archangel – and the bird song of warblers, nightingale and nightjar and the rare and beautiful butterflies, even the dank scents of rotting leaves in the winter are part of the natural beauty of the AONB. Much of the valued woodland wildlife, invertebrates, lichens and fungi, are associated with old trees, deadwood or open ground and are restricted to ancient woods and wood pasture. The ancient woodlands of the Kent Downs also preserve the evidence of thousands of years of human activity in earthworks, monuments and place names.

The diversity of woodland types broadly follows the different soil types within the AONB, including clay (with ash, hornbeam and oak); chalk (with ash, beech and yew) and free draining sands (with oak, birch and beech). Lowland beech yew woodland is particularly distinctive in the Kent Downs and is of European importance.

Trees outside woodlands; in field trees, hedgerow trees and individual notable trees are a particularly important and vulnerable part of the landscape of the Kent Downs and are generally unlikely to regenerate under current land management systems; each tree is an ecology and has a story. Often prominent in land and streetscapes, trees outside woodlands are an important quality of the landscape.

8.2 Woodland and trees - main issues, opportunities and threats

- a. There has been an increase and intensification of the impact of pests and diseases on woodlands and trees and this is expected to continue; the approach to woodland and trees in the landscape should be responsive and secure sustainable management as well as achieve resilience to this significant threat.
- b. There is a need to ensure that markets for woodland products secure sustainable woodland management which support landscape character, wildlife and the local economy.
- c. There is a need to build an appropriately trained and equipped work force with the

capacity to both generate and take advantage of new markets.

- d. Restocking on woodland sites, woodland creation and tree planting needs to be resilient to future climates mixing natural regeneration and planting schemes use a diverse range of appropriate species which are certified as bio secure and ideally of local provenance. (NB the use of species found previously in the area, such as lime and elm, and appropriate non-native stock are being considered as a response to the impacts of climate change, pests and disease but this is not conclusive and there is a need to be open to new approaches).
- e. The implications of climate change put a special focus on Kent Downs woodlands for both adaptation and mitigation responses; the resilience of woodlands and trees and a strategic approach to woodland and tree cover expansion are a key consideration.
- f. The diversity of type and motivation of wood owners and the rapidly changing woodland context means there is a need for consistent intervention and advice to support sustainable woodland management.
- g. The emphasis on multi-purpose woodland use is supported but can bring challenges for owners and managers and it can be the case that recreation, biodiversity and landscape management are do not bring commercial returns. Woodland recreation provides many benefits but increasing pressure is sometimes considered an increasing issue for woodland management, affecting commercial options, biodiversity and visitor experience.
- h. Intensive agriculture, infrastructure and building developments and pre-development felling can lead to the loss and fragmentation of woodland and transitional habitats around woods; there has been a reported increase in advance felling on sites where development is being sought.
- i. Pheasant and other game bird rearing can cause a loss of biodiversity and landscape value but where managed well can support sustainable woodland management.
- j. There is a need to take a strategic approach and propose long term management solutions to minimise biodiversity loss, to promote woodland regeneration and reduce fragmentation of woodlands and to limit the long term impact of disease and pest species in Kent Downs woodlands.
- k. There is a need to support the use of the UK Forestry Standard and Grown in Britain certification for woodland products.
- l. There is a need for the restoration and management of open space in woodlands, particularly woodland rides and glades and to carefully consider the opportunity for a wilding approach and the reintroduction of woodland species in certain circumstances.
- m. Insufficient understanding of the value, condition and location of 'veteran' trees, specimen trees outside woodlands and standing /lying deadwood in woodlands and parkland – for landscape, biodiversity, cultural and historic reasons.
- n. The need to harness the popular value of woodlands to improve understanding, engage new management arrangements and wider community and individual

involvement, health and well-being.

- o. The historic features contained in woodlands can often be overlooked, there is a need to ensure that they are better understood conserved and protected during woodland management operations and through the application of the UK Forestry Standard.
- p. The need to continue to promote and secure the restoration of PAWS sites through guidance and management support.

8.3 Woodland and trees – aims that support the sustainable management of woodlands and trees

A landscape in which:

1. The irreplaceable fine tree and ancient woodland characteristics and qualities, cultural heritage and landscape character is restored, conserved and enhanced.
2. The retention and sustainable management of woodlands and trees provides beautiful landscapes, recreation and education, carbon sequestration, timber, a sustainable source of renewable energy, an important wildlife habitat and assists with adaptation to the impacts of climate change.
3. Existing woodland is retained and expanded areas of woodlands and trees form functional ecological networks alongside other key habitats of the AONB in order to encourage resilience to the impacts of climate change and enhance landscape character and quality; the canopy cover of the Kent Downs is increased. A tree establishment strategy is agreed for the AONB
4. Woodland ecology and archaeology is well understood, conserved, enhanced and recognised for its value.
5. There are sustainable levels of access to woodlands for, health, well-being, recreation and leisure with wider, more inclusive opportunities for people to benefit. Careful management ensures the conservation and enhancement of the special characteristics and qualities of woodlands and trees.
6. The sustainable production of high-quality timber and valuable underwood is stimulated through sustainable market demand.
7. A collaborative approach is taken to the management, enhancement and establishment of trees and woodlands of the Kent Downs is taken.

8.4 Woodland and trees - principles that support the sustainable management of woodlands and trees

- WT1 The extent of woodland, transitional habitats around woodland and trees outside woodland in the Kent Downs AONB will be retained, connected and extended.

- WT2 A strategic, collaborative approach will be pursued to secure sustainable multipurpose woodland and tree restoration, management and establishment that reduces fragmentation, responds carefully to the impact of pests and diseases and does not risk further pests and diseases, conserves and enhances the special qualities and character of the landscape, the resilience of woodlands and trees and benefits people's enjoyment, health and well-being.
- WT3 The managed, gradual conversion of plantations on ancient woodland to deciduous woodland will be supported where locally distinct woodland types, tree species and bio-secure principally local provenance tree stock or natural regeneration are used.*
- WT4 Training, accreditation and wider understanding of woodland management to woodland owners and workers, local people and visitors will be encouraged and supported.
- WT5 The restoration and management of woodland open habitats and spaces, such as rides, glades, and wood pasture, for landscape, biodiversity and archaeology conservation purposes will be supported.
- WT6 The identification, protection, management, planned replacement and reintroduction of trees outside woodlands including fine specimen and 'veteran' trees will be pursued. This will include developing a Kent Downs based ash dieback recovery plan as part of wider woodland and tree establishment plan for the AONB.
- WT7 Positive and strategic management interventions to overcome damage to woodlands, such as from disease, illegal and harmful recreation, an expanding deer population, poorly managed use for game rearing, livestock and development associated with wood lotting, will be pursued.
- WT8 In response to pressures on woodlands and the positive motivations of many new woodland owners, co-ordinated actions and the development and promotion of guidance and support which integrates sound landscape, heritage and biodiversity management will be supported.
- WT9 New markets for sustainably produced, appropriately certified woodland products and marketing initiatives will be supported.
- WT10 Research to understand the ownership patterns and motivations of woodland owners will be encouraged to support a coordinated, strategic approach to the conservation and enhancement of the woodlands and trees of the Kent Downs.
- WT11 The identification and review the extent of ancient woodlands using up to date methodology will be supported.

* Principle WT3 may be amended only on the basis of sound evidence to reflect the possibility that non-native tree stock of native species could be more resilient to climate change impacts, a position statement will be prepared as part of the delivery of the AONB Management Plan.

