

Trees and Woodlands – Considerations for Local Plans

This is intended to be a guide to ensure trees and woodlands are appropriately considered within planning and especially the Local Plan making process.

It includes a range of topics and relevant information from the local Forestry Commission Area Team specialist advisors. It outlines how evidence relating to trees and woodlands can inform local plan preparation, site allocations, and strategic growth planning.

It also highlights opportunities to protect existing tree and woodland assets, enhance canopy cover and integrate trees into the design of new development. Together with suggestions for potential policy development that you may wish to consider.

It is intended as a reference guide and not a definitive list and should be adapted for local circumstances.

The Forestry Commission welcomes conversations with local authorities on how we can assist with the Local Plan process providing further information and advice.

If you have any questions or would like further advice on any tree, woodland or forestry matters, please do not hesitate to contact us.

We look forward to working with you to ensure that trees and woodlands play a positive and effective role in shaping the future of your area.

Forest Services
East & East Midlands
Santon Downham
Brandon
IP27 0TJ

Tel: [REDACTED]

eandem@forestrycommission.gov.uk

Contents

Consulting Inventories:.....	3
Ancient Woodland:.....	4
Ancient and Veteran Trees:.....	8
Priority habitat woodland:.....	9
Biodiversity Duty & Local Nature Recovery Strategies:.....	11
Canopy Cover:.....	12
Types & Benefits of Tree planting inc Urban Trees & Green Infrastructure:...	13
Management and felling:.....	15
Forestry Buildings:.....	17
Climate resilience and pests & disease:.....	18
Wildfire:.....	20
Solar Developments:.....	21
Timber in Construction:.....	23
Recommendations for potential policy development:.....	24

Consulting Inventories

You can use inventories to help you decide whether a development proposal will affect ancient woodland (including wood pastures identified as ancient), ancient and veteran trees, priority habitat woodland or trees and woodland generally:

Natural England's AWI - [download the data](#) or view it on the [Magic map system](#) (zoom in to see local detail).

A review of the AWI is ongoing, also use [Ancient Woodland - Revised \(England\) - Completed Counties](#) for updated information.

The Woodland Trust's [Ancient Tree Inventory](#) (ATI) (click on 'Tree search' and enter a postcode) - only a small proportion of ancient or veteran trees are recorded on this inventory.

Natural England's [wood pasture and parkland inventory \(includes ancient sites\)](#) on the Magic map system (zoom in to see local detail).

[Long Established Woodland](#) while not ancient, has been present since at least 1893 and is still very important with rich biodiversity.

Natural England's [Priority Habitat Inventory](#) maps priority habitats including woodland identified in the UK Biodiversity Action Plan.

The [National Forest Inventory \(NFI\)](#) woodland map covers all forest and woodland area over 0.5 hectare with a minimum of 20% canopy cover, or the potential to achieve it, and a minimum width of 20 metres.

The [Forestry Commission's Open Data](#) map can also provide other public forestry data including the National Trees outside woodland map, tree health and grant schemes.

Ancient woodlands smaller than 2 hectares may not appear on these inventories, although should be available on the revised mapping. [Local record centres](#) may also hold data on smaller ancient woodlands. As the inventories are not definitive, it is also worth cross checking with old maps if in doubt.

You should use this guidance for all ancient woodlands and ancient and veteran trees whether they're on the inventories or not. New data can be added to the AWI and ATI at any time.

Ancient Woodland

Ancient woodlands are an irreplaceable habitat. They have great value because they have a long history of woodland cover, being continuously wooded since at least 1600AD with many features remaining undisturbed.

Whilst some of these woodlands do contain ancient, veteran and old trees this is not always the case, the value of these woodlands should not therefore be assessed solely on the current tree cover.

The significant value of these woodlands relates to their soils, vascular plants, fungi, lichens and specialist species assemblages. They are priceless, irreplaceable, complex ecosystems and living museums of our natural heritage.

This applies equally to Ancient Semi Natural Woodland (ASNW) and Plantations on Ancient Woodland Sites (PAWS)/Ancient Replanted Woodland (ARW).

Other distinct forms of ancient woodland are:

- wood pastures identified as ancient
- historic parkland, which is protected as a heritage asset in the NPPF

Many of these do not appear on the Ancient Woodland Inventory (AWI) because their low tree density does not register as woodland on historic maps. The revised mapping when available for your area should contain this information. Historic parkland is usually identifiable using Historic England or County Heritage Records data.

You should consider wood pastures identified as ancient in the same way as other ancient woodland when making planning decisions.

Paragraph 193 (c) of the National Planning Policy Framework (Dec 2024), states:

"Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists"

It goes on to include what could be considered as "wholly exceptional reasons" and states:

"For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat."

Avoid impacts, reduce (mitigate) impacts and compensate as a last resort. Consideration should be given to selecting an alternative site for development or redesigning schemes to avoid ancient woodland.

As Ancient woodland, ancient trees and veteran trees are irreplaceable, proposed compensation measures should not be considered as part of your assessment of the merits of any development site proposal.

We would particularly refer you to further technical information set out in Natural England and Forestry Commission's [Standing Advice on Ancient Woodland](#) – plus supporting [Assessment Guide](#) and "[Keepers of Time](#)" – Ancient and Native Woodland and Trees Policy in England.

The Standing Advice states that proposals should have a buffer zone of **at least** 15m from the boundary of ancient woodlands to avoid root damage which can result in loss or deterioration of the woodland. The 15m is a **minimum** starting point designed for tree root impacts, there are other potential impacts that also need to be considered and avoided. Where assessment shows these impacts are likely to extend beyond this distance, a larger buffer zone would be required.

For example, while a 15m buffer may be appropriate for a single dwelling, however for larger scale developments, we would recommend this is increased to 30-50m+ depending on circumstances.

The Joint NE/FC Standing Advice states that both the direct and indirect effects of development should be considered for both the construction and operational phases of any proposed development. Not just including the potential for actual construction to impact on soils, trees and tree roots.

Other impacts to ancient woodlands, can include but are not limited to:

- reducing the resilience of the woodland and making it more vulnerable to change.
- increasing the amount of dust, light, air and soil pollution.
- increasing disturbance to wildlife.
- trampling of plants, erosion of soil or compaction of soil.
- changing the water table or drainage.
- damaging functional habitat connections, such as open habitats between trees in wood pasture and parkland.
- noise pollution and disturbance from additional people, traffic and domestic pets.

Measures need to be effective for the specific site and proportionate to the project's landscape scale and the cumulative effects on multiple blocks of ancient woodland, connectivity and functionally linked habitat. The cumulative impacts of multiple developments should also be considered.

Development that encloses a woodland and removes functional habitat links should be avoided. Woodland and woodland dependent species, that become isolated in their landscape and surrounded by development will deteriorate over time if habitat connectivity is not considered and provided.

The provision of new woodland and woodland edge planting should be considered in areas around existing Ancient Woodland. Species such as bats, birds and invertebrates rely on woodland edge as foraging and commuting habitat.

Quality buffers with good connectivity should be designed and maintained to protect the highly valuable woodland edge and maintain suitable habitat. For all development which has potential to impact Ancient Woodland a specialist bat survey should be a requirement.

Many of our woodland species are nocturnal and can be negatively impacted by light pollution. Sensitive lighting strategies should be designed to avoid light spill to woodland edges, buffers and commuting corridors which may be used by such species (bats, badgers, hedgehogs, and nocturnal bird species).

Whilst applications should be considered on their merits, in the case of ancient woodlands as irreplaceable habitats, the integrity of the woodland should take priority except for when the exceptional reasons test applies.

Adopting good buffering and habitat connectivity measures could help to avoid many potential effects from development, especially by making them site-specific, connected and of good quality for local biodiversity and supportive of woodland species.

Ancient Woodland should not be considered as public greenspace for a new development. Any potential increase in recreation and human disturbance as a result of a proposed development should be assessed and then avoided and mitigated as a part of the planning process. Suitable alternative green spaces should be included in developments where there may be an increase in footfall and impacts from pets such as dogs.

Where larger housing developments are created near ancient woodland, efforts should be made to educate public on the impact of dogs (dog fouling and disturbance) and cats (hunting) on local wildlife. Alternative spaces for dog walking and public recreation should be included into the design process.

Due to the irreplaceable nature of ancient woodland, most temporary effects will result in irreplaceable damage.

Ancient Woodland summary:

- | |
|---|
| <ul style="list-style-type: none">• These are irreplaceable habitats.• Development should almost always be refused• Both direct and indirect impacts must be considered.• Buffer zones can mitigate impacts but should be as large as possible.• Fragmentation is highly detrimental to ecosystem function and health.• Promoting connectivity of ancient woodlands should be prioritised.• Public education and provision of alternative greenspace should be included in developments which may impact Ancient Woodland. |
|---|

Ancient & Veteran Trees (AVT's)

Ancient and Veteran trees are also irreplaceable habitats.

Records of AVT's are incomplete, the Woodland Trusts Ancient Tree Inventory can provide some information, but this should not replace the need for a site survey in each development proposal where trees may be affected. This should be a full arboricultural assessment undertaken by a certified professional.

Developments which include Ancient and Veteran trees should be planned so that these trees are sited within complementary habitat such as grassland. Failing this, appropriate mitigation should be in place to reduce both impacts from construction and ongoing pressures from increased footfall, recreational use and pollutants etc.

For ancient or veteran trees (including those on the woodland boundary), the buffer zone should be **at least** 15 times larger than the diameter of the tree. The buffer zone should be 5 metres from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter. This will create a **minimum** root protection area.

Some areas contain significant numbers of ancient or veteran trees and may not be suitable locations for development to be approved.

Ancient and Veteran Tree summary:
• These are irreplaceable habitats. • Appropriate buffer zones and root protection zones must be in place to reduce both direct and indirect impacts. • Full site surveys are essential. • Appropriate mitigation may be feasible within site design but where large numbers of ancient/veteran trees occur this may indicate highly unsuitable locations for development.

Priority Habitat Woodland

Priority habitat woodlands can be sub-divided into categories which describe the predominant species they contain eg: upland oakwood or classed as mixed deciduous woodland.

Woodlands listed on the Priority Habitat Inventory include:

- Lowland Mixed Deciduous Woodland
- Upland Birchwood
- Wet Woodland
- Upland mixed Ashwoods
- Lowland Beech and Yew Woodland
- Upland Oakwood
- Traditional Orchards
- Native Pine Woodlands
- Wood Pasture and Parkland

These were recognized under the UK Biodiversity Action Plan as being the most threatened woodlands, requiring conservation action. The UK Biodiversity Action Plan has now been superseded, but this priority status remains under the Natural Environment & Rural Communities Act 2006. (NERC) Sect 40 "Duty to conserve and enhance biodiversity" and Sect 41 – "List of habitats and species of principle importance in England".

Paragraph 187b of the NPPF (Dec 2024) states:

"Planning policies and decisions should contribute to and enhance the natural environment recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland."

Fragmentation is one of the greatest threats to priority habitat woodland. Woodlands can suffer loss or deterioration from nearby development through damage to soils, roots and vegetation and changes to drainage and air pollution from an increase in traffic and dust, particularly during the construction phase of a development.

Woodlands, and woodland dependent species, that become isolated in their landscape and surrounded by development will deteriorate over time if habitat connectivity is not considered and provided.

Woodlands are also vital components of functional landscapes. Assessment of their contribution to nature-based solutions should be reviewed at a landscape scale; particularly focusing on flood risk, air and water quality. Impacts resulting from loss of these woodlands should be identified and quantified.

The cumulative impacts of multiple developments should also be considered.

A scheme that bisects any woodland will not only result in a significant loss of woodland cover and reduce ecological and natural heritage value, but also negatively impact the woodland's resilience and ability to respond to the impacts of climate change. This is relevant to net zero and climate resilience policy development and should be considered as a cross-cutting policy within local plan development.

Where woodland loss is unavoidable, we would expect to see significant compensation with a high replacement ratio, together with the use of buffer zones to enhance the resilience of neighbouring woodlands. These zones should include further tree planting or a mosaic of semi-natural habitats.

Protection measures for retained woodland should be detailed to include taking care not to cut tree roots (e.g., by trenching) or causing soil compaction around trees (e.g., through vehicle movements or stacking heavy equipment) or contamination from poisons (e.g., site stored fuel or chemicals) and fencing off these areas to prevent unintended incursions into the root protection zone as well as dust prevention measures to reduce any potential impact of dust pollution.

For any woodland within the development boundary, land required for temporary use or land where rights are required for the diversion of utilities, the Root Protection Zone must be taken into consideration. The Root Protection Zone (as specified in British Standard 5837) is there to protect the roots of trees, which often spread out further than the tree canopy.

Priority habitat woodland summary:
• Protected by legislation as habitats of principle importance. • Vulnerable to deterioration through both direct and indirect impacts of development. • Fragmentation and loss of connectivity is a significant threat. • Development should be located to avoid creating isolation, and can assist connectivity by strategic placement of new planting. • Care should be taken to review landscape impacts of any woodland loss, including impacts to hydrology. • Woodland loss should be avoided in principle but where unavoidable should be replaced at a higher ratio to the area lost. • Protection of retained trees and woodland during development should include multiple points of protection including to root protection areas.

Biodiversity Duty and Local Nature Recovery Strategy

The Biodiversity Duty under the Environment Act requires all public bodies to consider what actions can be taken to conserve and enhance biodiversity, including in policy making and decision taking.

Local Nature Recovery Strategies are statutory documents which have been produced at a county, or smaller, level since 2023. These outline the most significant pressures facing our natural environment and suggest mitigation actions to address risks and provide opportunities to restore nature.

Each LNRS combines a set of priorities and measures detailing specific actions and a map showing the most effective spatial locations for these actions.

Local plans should review and take account of these strategies avoiding development in areas highlighted as priorities for nature.

Development can contribute to LNRS delivery by using BNG to deliver LNRS actions. Where development is proposed the relevant LNRS maps should be reviewed to suggest how this link can be best achieved.

LNRS maps are a central source of information about local habitats and priority action with multiple stakeholders having input expertise and data. Following suggested actions and locations shown in these plans will be the most significant contribution, and allow for the most significant avoidance of risk in local plan development.

LNRS summary:

- **LNRS comprise a written strategy and accompanying spatial plan detailing the best actions and locations to support nature recovery.**
- **Input from a wide range of specialists allows these to be the most detailed source of information relating to habitats, species and nature based solutions.**
- **Development can contribute to delivery of LNRS via BNG and assessment of the strategy and maps at site scale.**
- **Local plans can make use of LNRS to determine the least sensitive locations for development, and provide information on the most appropriate habitat provision requirement within each development.**

Canopy Cover Targets

The Environment Act (2021) and the Environmental Improvement Plan (2023 & 2025) set a national canopy cover target of 16.5% to be reached by 2050. This is an averaged target with some areas of the country being more, or less, suitable for extensive tree cover. This will vary according to existing tree cover, and presence of other protected habitats. The target includes all trees including those outside of woodlands.

In order to meet this stretching target an averaged figure for each local plan area should be set. In some areas this could far exceed 16.5%. Evidence from the National Forest shows that canopy cover in excess of 40% can be comfortably accommodated even in residential and industrial areas.

Where new developments are planned green infrastructure (including trees and woodland) should be a requirement, both in and around the site. Tree planting should be a material consideration, not just as a compensation for loss. Use of trees can be suited to each landscape with the ability to provide multiple benefits, the most appropriate local design and species recommendations (right tree, right place for the right reasons) should be followed by developers.

In addition to an overall target for a local plan area, a canopy cover target for all new developments may be a useful method via which meaningful tree cover can be assured.

Canopy Cover Summary:

- **National statutory targets for increase of canopy cover are part of the Environment Act (2021) legislation.**
- **Local adoption of agreed targets should be included within local plans, and relevant to each area's potential or constraints.**
- **Requirements for green infrastructure, including trees, should be part of planning agreements with associated site specific canopy cover targets.**

Types and Benefits of tree planting

Including Urban Trees & Green Infrastructure

Urban trees and forests are much more than their visual amenity, they are an important source of ecosystem services in towns and cities.

They improve air quality by reducing air pollution levels, they cool the air reducing urban heat island effects, can reduce flooding and provide rich habitats for a range of wildlife. They can greatly reduce the severance of natural habitats caused by built environments.

Trees can also provide improved human health outcomes and are valuable assets for both physical and mental health. Trees have been shown to reduce blood pressure and stress levels, improve immune response and contribute to significant health and social care cost reductions. Urban trees and established green spaces can also typically increase property values by up to 15%.

The Woodland Trust's [Tree Equity Score](#) shows a spatial assessment of the canopy cover of populated areas and can help to determine locations where more trees can be included. This is particularly important when considering the link between low tree cover and economically disadvantaged groups with associated poor health outcomes. Use of tools such as this can assist with setting of canopy cover targets for urban tree cover.

Local plans should seek to determine appropriate locations within the plan area, and within developments for different types of planting. Inclusion of additional trees can be via many different routes, from single open grown trees to closed canopy woodland. The most appropriate planting will depend on the landscape, soils, elevation and surrounding habitats. The use of a range of styles of planting can create diversity which helps to build resilience.

In some locations shelter belts, or linear planting, can be the most effective way to reduce noise pollution or improve air quality. Within a development, street trees, small spinneys, hedgerows with standard trees, community orchards and amenity woodlands could all be incorporated to provide many different benefits including valuable accessible green space providing numerous benefits both to humans and the wider environment.

Developments must also include plans for maintenance and aftercare of new trees to ensure these benefits are realised.

Urban Trees and Green Infrastructure summary:

- **Urban trees have significant and wide-ranging benefits including reductions of pollution and urban heat.**
- **Increased urban canopy cover can provide wildlife corridors and reduce impacts of habitat severance.**
- **Canopy cover correlates to improved human health outcomes which has associated financial benefits to society.**
- **Developments can include a range of different types and sizes of canopy cover which can provide residents with numerous benefits.**
- **Local plans could include canopy cover targets which can be targeted towards specific locations.**
- **Aftercare and maintenance is vital to achieve best outcomes.**

Management and felling

Woodlands in England are generally not wildwood, and have had centuries of human interventions shaping their form and function today. In recent times our societal need for wood products has reduced and an associated reduction of woodland management has ensued. This has left many woodlands without the intermittent management that many of our specialist woodland species have evolved to require.

Development may be able to contribute to improvements in this area via BNG agreements to improve woodland condition, especially for ancient woodland.

Where woodlands sit within or adjacent to development, agreements should be in place to sensitively manage these habitats to support a thriving ecosystem. This should go beyond mitigation of risk as identified in the ancient woodland and priority woodland sections. Selective thinning, coppicing, management of open spaces and rotational cutting of scrub edges are all valuable interventions that could be funded via BNG or secured by condition. Where development is planned in areas which include woodlands, a policy for improvement of the existing habitats would have significant positive impacts.

It is important to note that felling of trees is a controlled activity legislated within the Forestry Act (1967); in most cases felling and management of trees outside of gardens would require regulatory permission from the Forestry Commission.

Planning permission granted after felling has occurred does not retrospectively negate the need for a felling licence where one was required, or override the conditions of a restocking notice. The BNG metric should accurately reflect if a habitat has been cleared, destroyed or degraded previously. If this occurs, an earlier baseline should be used stating the pre-degradation habitat type; and reported to the Forestry Commission to investigate as alleged illegal felling.

Where new trees and woodlands are planned, a programme of management and maintenance is essential to ensure these new plantings establish into high quality woodlands. At least 15 years of aftercare may be required, with most activity being in the first 3-4 years. For urban environments lifelong management of the trees is required with ongoing monitoring required to determine annual work programmes.

Grey squirrel and deer populations can have negative impacts on new and existing trees and woodland. Via stripping of bark, or browsing of young trees and understorey vegetation, both mammals can severely impact tree and woodland health. Policy statements about the need for control of these mammals should link into national policy statements:

[Deer impacts policy statement for England](#)

[Grey squirrel policy statement: managing the impact of grey squirrels - GOV.UK](#)

With regard to deer, development can have unintended consequences to their movement across landscapes.

New roads and infrastructure can create funnels which concentrate deer numbers with resulting impacts on the environment, or increases in road traffic accidents.

A Landscape assessment of deer numbers should be considered when agreeing new development, including the locations of wooded corridors which should be designed carefully around road networks.

Management and felling summary:
--

- | |
|---|
| <ul style="list-style-type: none">• Woodland management is required to maintain high quality ecosystems which have evolved with continuous human intervention.• Planning conditions, or BNG agreements, which secure appropriate long term management agreements are likely to have significant positive impact.• Aftercare and management of new planting and urban trees is essential.• Deer and Grey Squirrel can have significant negative impacts on new and established woodlands, policy statements should reflect and support national policy.• Landscape assessment, and site design, are particularly important in areas of high deer populations. |
|---|

Forestry Buildings

Whilst the Forestry Commission supports active woodland management, especially for Ancient Woodlands, to preserve the habitat and biodiversity, this should be done in line with a UK Forestry Standard (UKFS) approved woodland management plan. In some cases this may require onsite storage of machinery, on a temporary or permanent basis.

The local planning authority should consider whether proposed forestry buildings are **reasonably required**, are consistent and are of a reasonable size in relation to the size and context of the woodland, the management plan, felling licence and associated operations within the woodland. This should include assessment of the frequency of operation as well as the variety of intervention required. Small woodlands in particular may therefore not require any onsite storage.

Forestry buildings are for the sole purpose of forestry operations and should not be used for recreation, education or residential purposes.

Of particular concern are woods, especially ancient woodlands, which have been sub-divided into wood-lots under multiple ownerships. It is not required in these circumstances to have multiple storage options in line with the legal ownership boundaries. Appropriate machinery and storage should be considered on the basis of the whole woodland and not by ownerships. The Forestry Commission can be engaged to advise on site specific management requirements.

Forestry Buildings summary:
• Woodland management activity may require on site storage of machinery. • Storage should be proportionate to the size of the woodland and requirement for activity. • Infrastructure and buildings should only be approved for woodland management related activity and not for any other purpose. • Proportionate size should be judged on the size of the habitat and not the ownership boundaries.

Climate resilience and Pest and Disease

The climate is changing at a rate which outstrips normal evolutionary responses. This includes increased temperatures, changes to rainfall patterns which includes periods of flood and drought, loss of seasonal norms to which many seed germination patterns are adapted and increased occurrence of extreme events such as storms, high winds and wildfires. This presents exceptionally challenging events for our natural environment.

In addition, due to an increasing risk of pests and diseases it is important to promote greater diversity of species in woodlands and other tree'd landscapes to reduce the risk of loss of a majority species, as has occurred with English Elm and Ash.

Use of the Forestry Commission [Ecological Site Classification Tool \(ESC\)](#) can assist with selection of tree species that are ecologically suited to particular sites and includes climate change predictions to allow for future suitability and woodland resilience.

The [Climate Matching Tool - Forest Research](#) also provides a visualisation of regions with a similar climate to the climate projection for any location in Europe. It gives an indication of the climate that trees are likely to experience in the future. This can help practitioners to consider the selection of better suited material from environments that England may experience in the future.

When planting, Local Authorities should require [UK Plant Passport rules](#) to be complied with and ensure seed providence of planted material takes into account climate change models. In addition, complying with current restrictions on the planting of Spruce in the Ips Demarcation Area should also be required for any future planting schemes.

In order to create the most resilient new woodlands best practice policy should include:

- species choice assessed against local site specific conditions
- diversity of age and species
- range of establishment types including natural regeneration
- species mixtures which include both broadleaf and coniferous species
- inclusion of a proportion of southerly provenance seeds/saplings which may fare better with abrupt changes to local climate
- avoidance of tree species with known and current pest/disease outbreaks

Careful management of existing woodlands can also improve resilience towards both climate changes and pest and disease outbreaks. The Forestry Commission Practice Guide [Managing England's woodlands in a climate emergency](#) details how this can be achieved, this may be useful in relation to planning conditions or BNG agreements which include woodland management actions.

Climate resilience / Pest and Disease summary:

- **Increased risk of pest and disease threaten many woodlands and have already significantly impacted native species such as Ash.**
- **Climate changes threaten woodland health and pose risks to continued good quality habitat.**
- **The speed of climate change and incursions of pest and disease outbreaks may overwhelm normal evolutionary adaption.**
- **Careful choice of species, and design can mitigate some risk and create woodlands which are resilient and best able to adapt to changes of climate or new pest/disease impacts.**
- **New planting, or supplementary planting in existing woodland, should include diversity of species, a proportion of alternative provenance stock and ensure that natural regeneration is promoted.**

Wildfire

Incidences of wildfire are becoming more common and can have devastating impacts on both habitats and people. Careful planning is required to ensure that in areas of high wildfire risk, the likelihood and impact on the environment, capital assets and people is reduced through the use of natural and artificial fire breaks and management of possible fuel load.

This can include avoiding contiguous landscape corridors of scrub, or strategic placement of fire breaks and use of natural features such as ponds and rivers.

Expert advice is often required to assess local landscapes. The risk of wildfire will be highly variable depending on local circumstances, further advice can be gained from the local resilience forum.

Wildfire summary
• Local assessment of wildfire risk, and development of local policy relating to fuel loading is essential in light of increasing incidence and severity of fire risk.

Solar Developments

An increased focus on renewable energy, together with the larger threshold for Nationally Significant Infrastructure Projects (NSIP) solar developments, has resulted in increased numbers of solar farms coming to local authorities for consideration.

There is already a clear understanding of how traditional developments (i.e. housing) will impact ecology and mitigation for this is currently part of standard practice for new applications. Solar farms however, do not yet have the same level of understanding and mitigation requirements, and are not yet part of guidance or standing advice.

Although there are nuances to the impacts of solar farms, they should be considered in the same way as other large scale developments and be subject to the same specialist survey requirements. Their impacts are different, but they may still have negative effects on the environment, especially when their design has not taken full account of biodiversity.

Recent studies have shown that solar panels negatively affect the activity of six out of eight bat species – which are European Protected Species. Of those bat species surveyed, those that used woodland edge were most affected. The panels have been theorised to reflect bats echolocation making detection, navigation and feeding harder, in addition to risk of potential collisions where the flat surfaces are mistaken for water.

Solar panels have also been shown to have potential negative impacts on invertebrate populations, which may be related to the reduction of bats around solar farms. Inclusion of wildflower and diverse grassland under the solar panels may help to mitigate this. Incorporations of biodiverse buffers are strongly suggested.

Breaking up the mosaic of woodland and open habitat can greatly reduce bat's ability to forage, the severing of habitat continuity can impact flight paths and reduce access between foraging and roosting areas. Having solar panels or fencing close to the edge of woodland areas, such as using the minimum 15m buffer distance for ancient woodland or less, will greatly reduce the available habitat for foraging bats and may add extra disturbance pressure to roost sites.

Hedges are vital commuting and foraging routes for bats in-between woodlands, similar buffers around key hedge routes connecting woodlands will greatly reduce the fragmentation impact which could be caused by solar panels. To mitigate some of the potential impacts, the provision of scrub and flowering plants could increase invertebrate populations and potential foraging for bats.

Infrastructure to support solar arrays, such as BESS (Battery Energy Storage Systems) should be sited well away from woodlands, especially ancient woodland. Woodlands or scrub should not be used as screening for BESS to reduce the risk of possible wildfire should a battery fire occur.

Due to the levels of fencing required for large scale solar developments, they have the scope to exclude large amounts of farmland from the deer range in the area. In areas where woodlands are contained and surrounded by the site, fencing could curtail their movement if they are inside the fencing.

Large scale fencing will also change how deer move through the landscape. This is likely to increase herbivore browsing and grazing in other areas in close proximity to the site. Impacts are then likely to increase in surrounding woodlands, especially ancient woodlands, hedgerows and the wider landscape.

It may also increase the numbers of deer crossing local roads, and therefore may increase the numbers of deer vehicle collisions in the area.

A Landscape assessment of deer numbers should be considered when agreeing new development, including the locations of wooded corridors which should be designed carefully around road networks.

Solar developments summary
• Solar developments should be assessed with the same rigour and subject to the same survey requirements as any other development project. • Particular reference to the impact upon bat species where ancient woodlands are affected should be made with specialist surveys required. • Potential fire risks with battery storage systems should be assessed with batteries not located adjacent to woodland or scrub.

Timber in Construction

Home grown timber should be used in construction as a sustainable building material. This therefore reduces the embodied carbon in the built environment, drives investment in tree planting, forest management and domestic supply chains and creates new green jobs and industries.

This is in line with the Government's [Timber in Construction Roadmap 2025](#), [The 25 Year Environment Plan](#) (Page 47) and the [Net Zero Strategy](#).

Use of timber as a construction material can reduce embodied carbon emissions in a single building by 20% to 60%, [carbon storage is approximately 50% higher in timber framed homes](#) than in masonry homes, and can be up to 400% higher for larger buildings that use engineered timber products such as Cross-Laminated Timber (CLT) instead of concrete.

Cross cutting policy development for local economies, construction requirements, climate and net zero and biodiversity/habitat protection should be considered to appreciate the clear links between these areas.

Timber in construction summary
• Sustainability in construction should include incorporation of timber as a major component of building materials. • Cross cutting policy should draw together timber use with a range of other appropriate subject areas.

Recommendations for potential policy development

1. **Ancient Woodland**

- Policies that reflect the NPPF for irreplaceable habitat as a minimum.
- Recommendations for the size of buffer zones.
- Where proposals are likely to affect ancient woodland, a requirement for a full assessment of the direct and indirect impacts the proposed development may have on the ancient woodland habitat as a whole, not just individual trees. Including measures of how these will be avoided or mitigated.
- Developments that enclose or isolate ancient woodland in its landscape or removes functional habitat links should not be supported without appropriate mitigation.
- A full bat survey should be undertaken by a certified professional for any development with potential to impact Ancient Woodland. This should include foraging or commuting routes which may be outside of the woodland itself.

2. **Ancient and Veteran Trees**

- Policies that reflect the NPPF for irreplaceable habitat as a minimum.
- Requirements for full site arboricultural surveys where trees may be affected by development.
- Recommendations for the size of buffer zones around AVT's.
- Where proposals are likely to affect AVT's, a requirement for a full assessment of the likely direct and indirect impacts including measures of how these will be avoided or mitigated.

3. **Priority Habitat Woodlands**

- Policies which describe location and site design to avoid fragmentation of existing woodlands.
- Requirements for appropriate buffer zones and Root Protection Zones during development.
- Requirements for replacement of losses at a higher ratio than like for like.
- Requirements for the analysis of landscape value of woodlands within development proposals which includes their functional value to a range of nature-based solutions providing public benefits.

4. Biodiversity Duty & Local Nature Recovery Strategy (LNRS)

- Policies relating to consideration, or having regard, for LNRS at a plan setting stage.
- Policies which require assessment of the relevant LNRS at a planning permission application stage with accompanying proposals for links between BNG and LNRS delivery.
- Policy on information gathering to allow for reporting upon progress towards LNRS delivery (and by association delivery of the Public Body Biodiversity Duty).

5. Canopy Cover targets

- Targets for increased canopy cover at Local Plan area, and sub-divisions according to variations of landscape, should be set with a timescale and justification.
- Specific requirements for inclusion of trees as part of green infrastructure in new developments, plus site specific canopy cover targets.

6. Types and Benefits of planting – including Urban Trees & GI

- Assessment of ward canopy coverage and setting of associated targets at a very local level.
- Cross-cutting policies which address air pollution, flood risk, urban heat and human health using trees as part of the solution.
- Commitments to raise canopy cover in areas of high deprivation.
- Clear policy on council owned assets, or conditions within planning permissions, for aftercare and maintenance of trees and woodlands.

7. Woodland management including Deer & Grey Squirrel policy

- Requirements for planning conditions or BNG targeting for woodland management are linked to developments adjacent to or containing woodland.
- Clear policy on council owned assets, or conditions within planning permissions, for aftercare and maintenance of trees and woodlands.
- Requirements for consideration of deer movement, in particular the relationship of woodland corridors and roads, in both site allocations and site design.

8. Forestry Buildings

- Requirements for justification according to necessary forestry activity linked to an approved management plan.
- Policy for proportionate approvals which are assessed on habitat requirements and not ownership boundaries.
- Cumulative impacts of multiple buildings should be assessed.

9. Climate resilience and pest and disease

- Policy includes climate adaptation for new planting and woodland management.
- Requirements for site assessment include consideration of the most appropriate species and planting design linked to industry standard reference tools and projected climate models.

10. Wildfire

- Policy requiring local assessment of wildfire risk especially in relation to fuel loading and potential landscape spread.

11. Solar developments

- Policy requiring careful consideration of buffer zones for solar developments when woodlands, especially ancient woodlands are present.
- Policy requiring specialist bat surveys where woodlands are within or adjacent to a proposed solar development site.
- Requirements for appropriate buffers and/or use of land beneath panels to mitigate potential negative impacts.
- Requirement that fire risk and fuel load is appropriately considered in relation to the siting of battery storage facilities.

12. Timber in construction

- Recommendation that home grown timber is considered as a building material to reduce embodied carbon of new builds.