



Forestry Commission

Right Tree, Right Place, Right Reason



Agenda

Introduction – Jon Burgess

Right Reason – Rebecca Naylor

Right Place – Leo Gubert

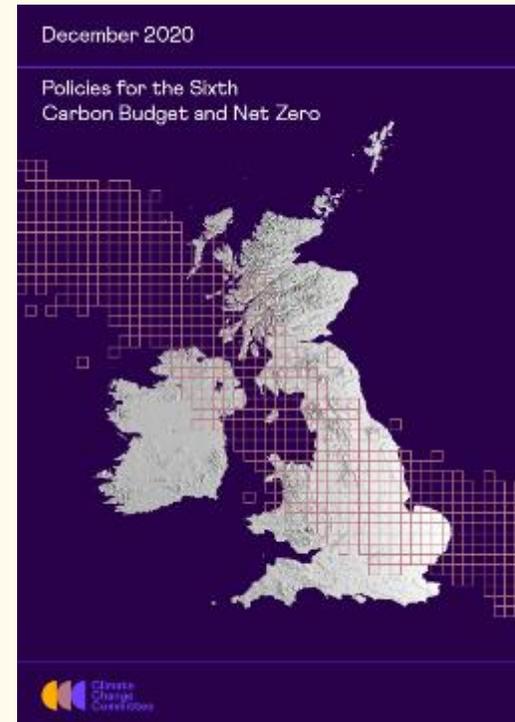
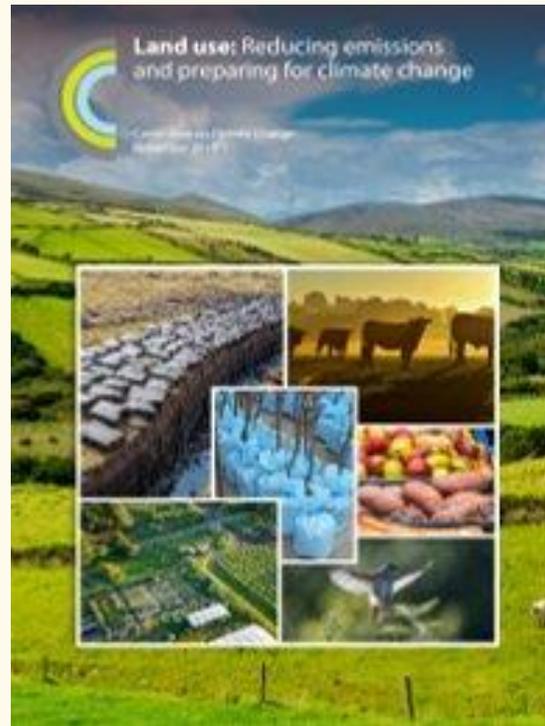
Right Tree – Neil Duffield

Carbon – Jon Burgess

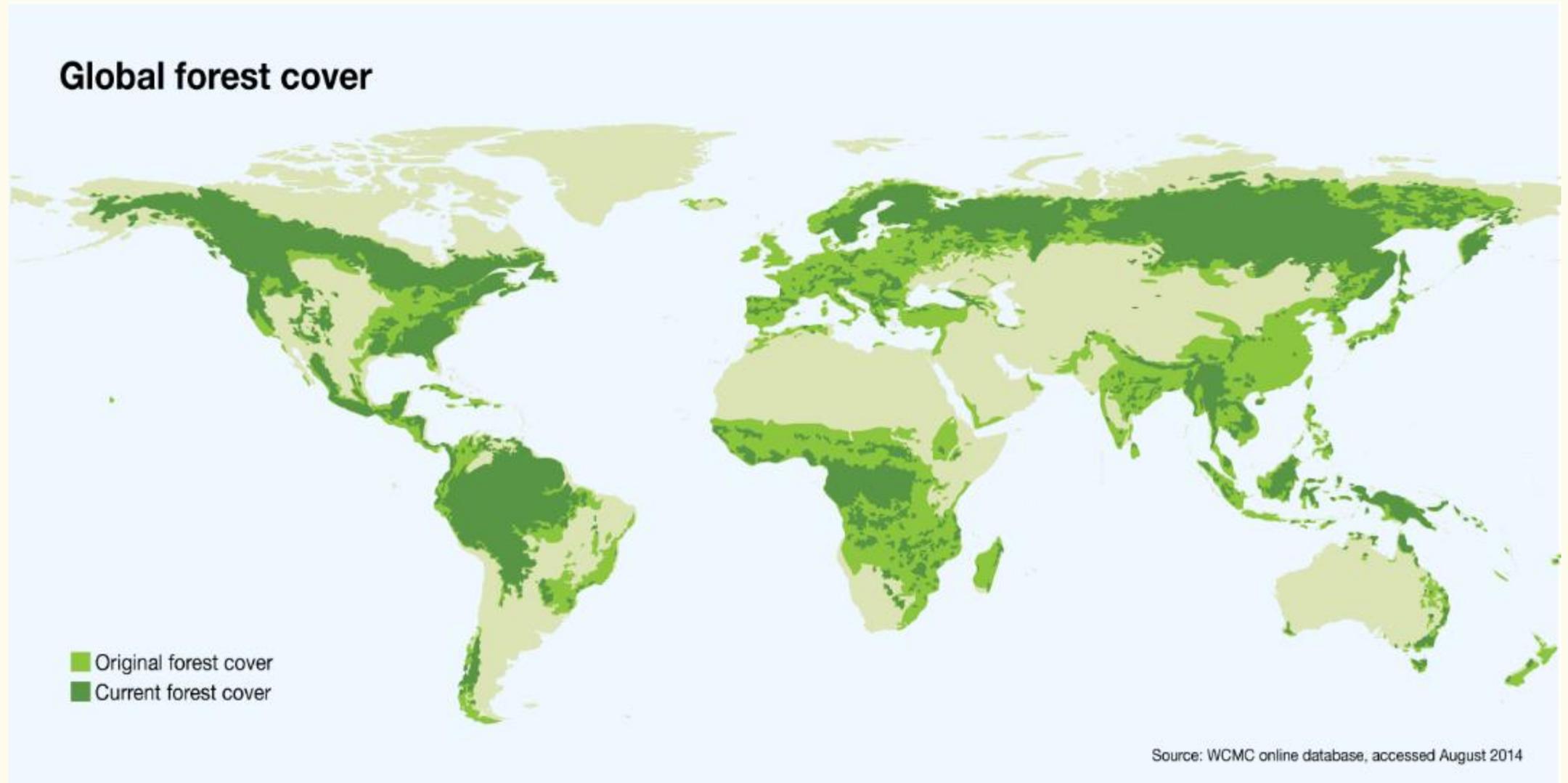
Q&A - panel

So many trees...why?

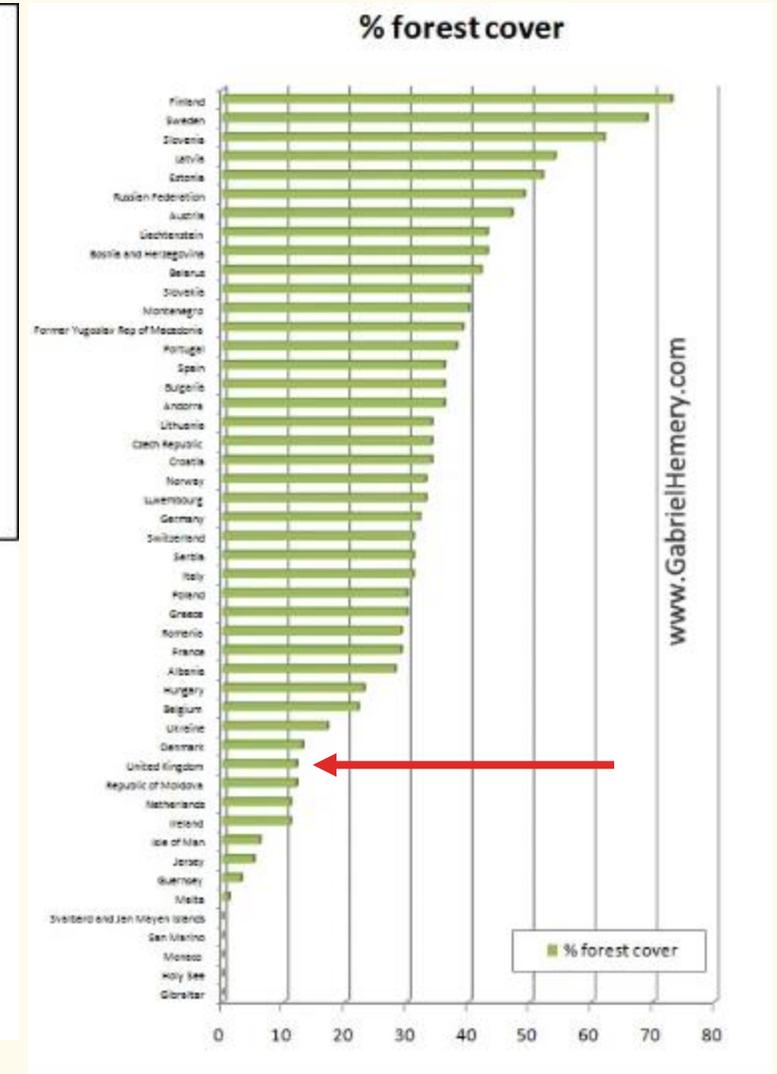
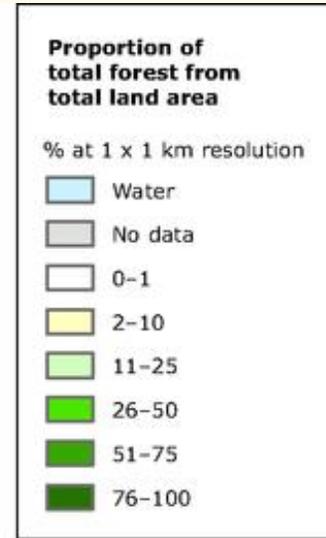
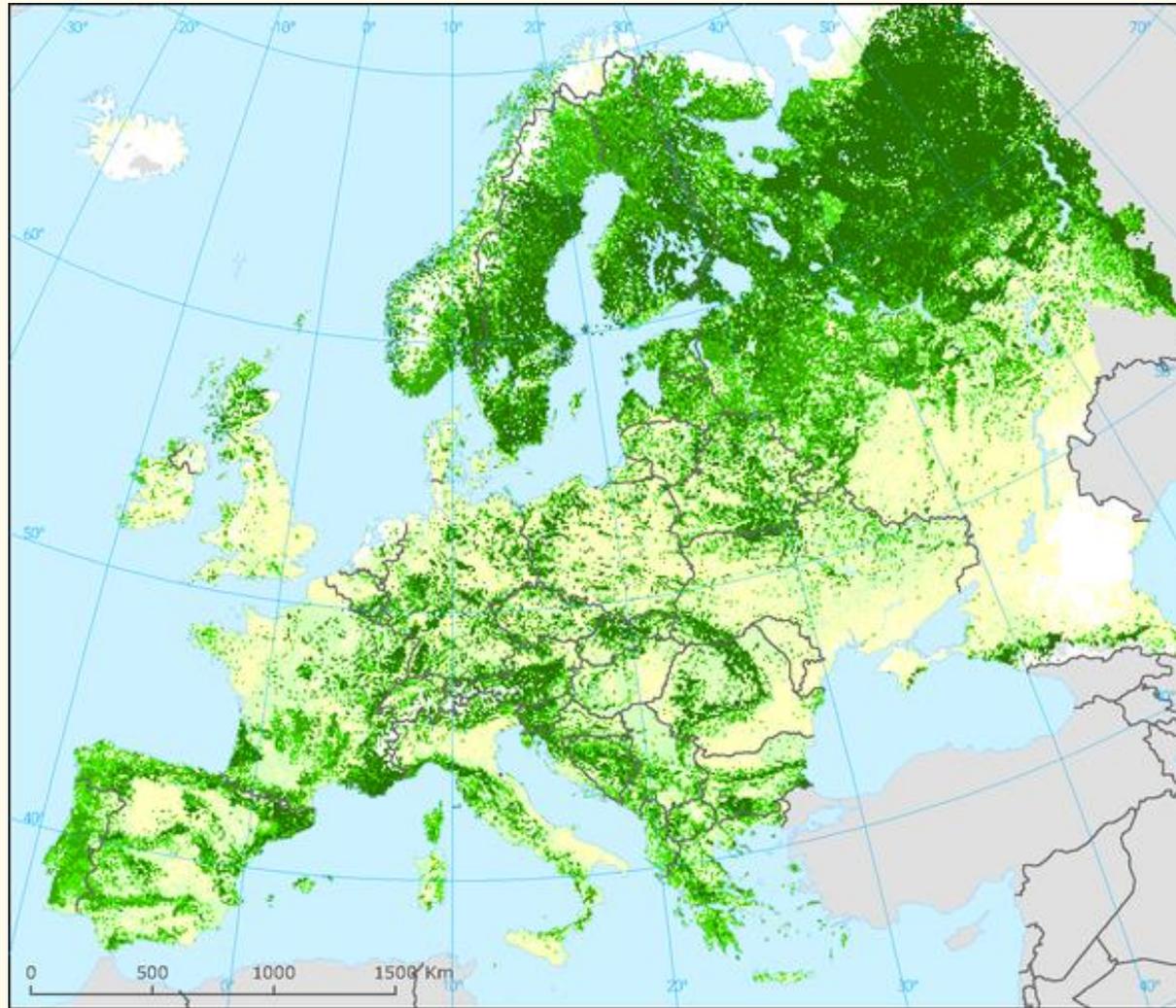
- Net Zero carbon
- Avoid worst impacts of change by keeping under 2°C
- 30,000 hectares per year



Tree cover – is it natural?

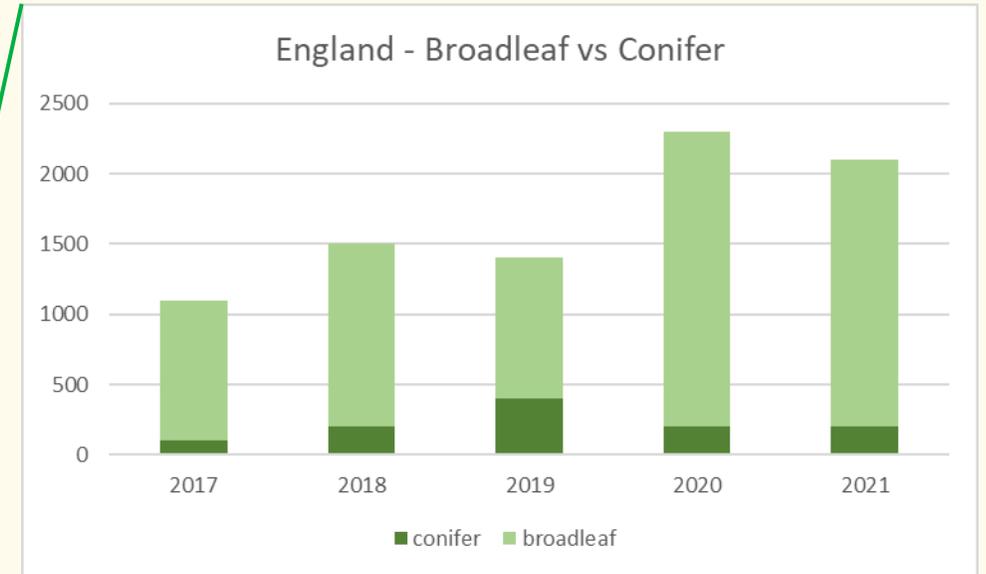
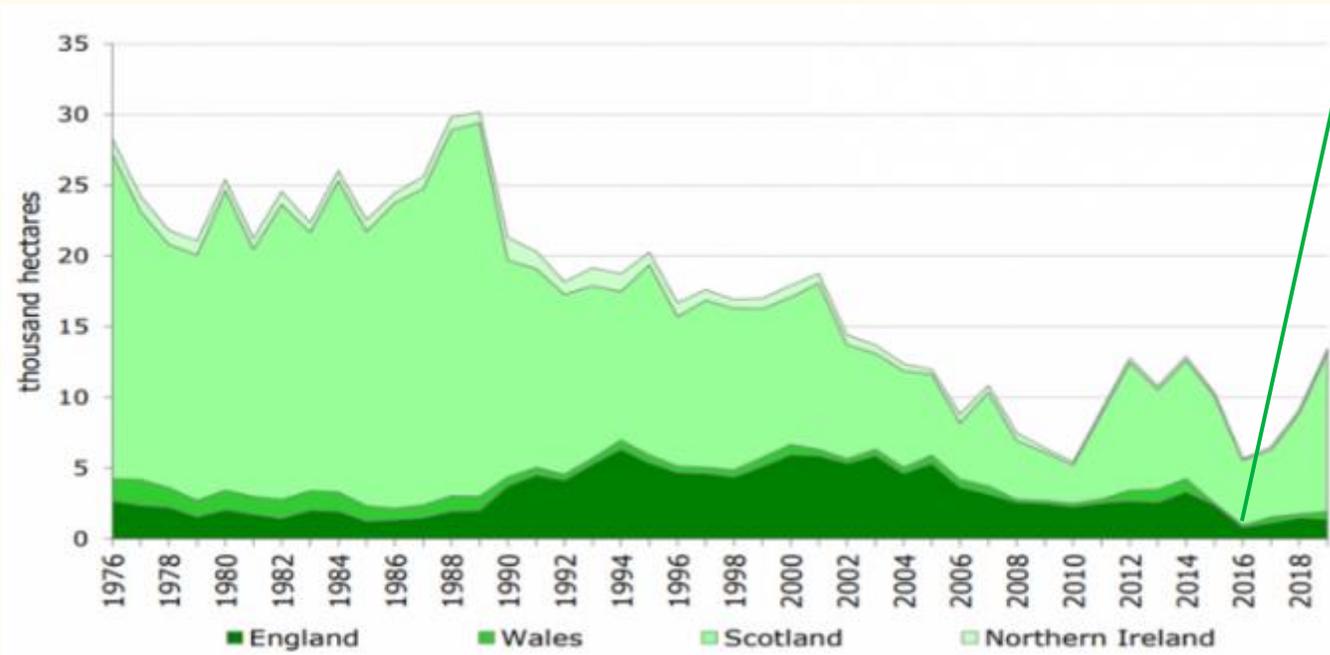


European forest cover



Woodland Creation history

Scotland does the 'heavy lifting'



England

87% of new woodland is broadleaf
74% of all woodland is broadleaf





Forestry Commission

Right Reason

Rebecca Naylor
Regional Promotion Manager



Why now?

- Net zero - As trees grow they take carbon dioxide out of the air which helps to tackle climate change
 - Biodiversity crisis – Woodland creation provides crucial habitat for wildlife and protected species
-
- Government has passed a law that requires the UK to bring all greenhouse gas emissions to net zero by 2050
 - Government has pledged to deliver 30,000 hectares of woodland per annum by 24/25 in the UK and financial support to landowners/farmers to achieve this

How woodlands can benefit landowners & communities

Animal shelter

Timber

Sound proofing

Improve water quality

Increase land value

Woodfuel

Keep rivers cool

Wildlife

Recreation & tourism

Non timber forest products

Restore landscape

Protect soils

Income from carbon

Improve air quality

Landscaping

Funding for capital improvements

Flood alleviation



Forestry Commission, woodland creation & the 25 Year Environment plan



Clean air



Clean water



Thriving plants and wildlife



Reduced risk of harm from environmental hazards



Using natural resources sustainably



Enhancing beauty, heritage and the natural environment



Mitigating and adapting to climate change



Minimising waste



Managing exposure to chemicals



Enhancing biosecurity

Climate change

Trees are THE best at carbon sequestration

We need climate resilient species

Other priority habitats need trees!

Sustainable resources

- Timber
- Wood fuel

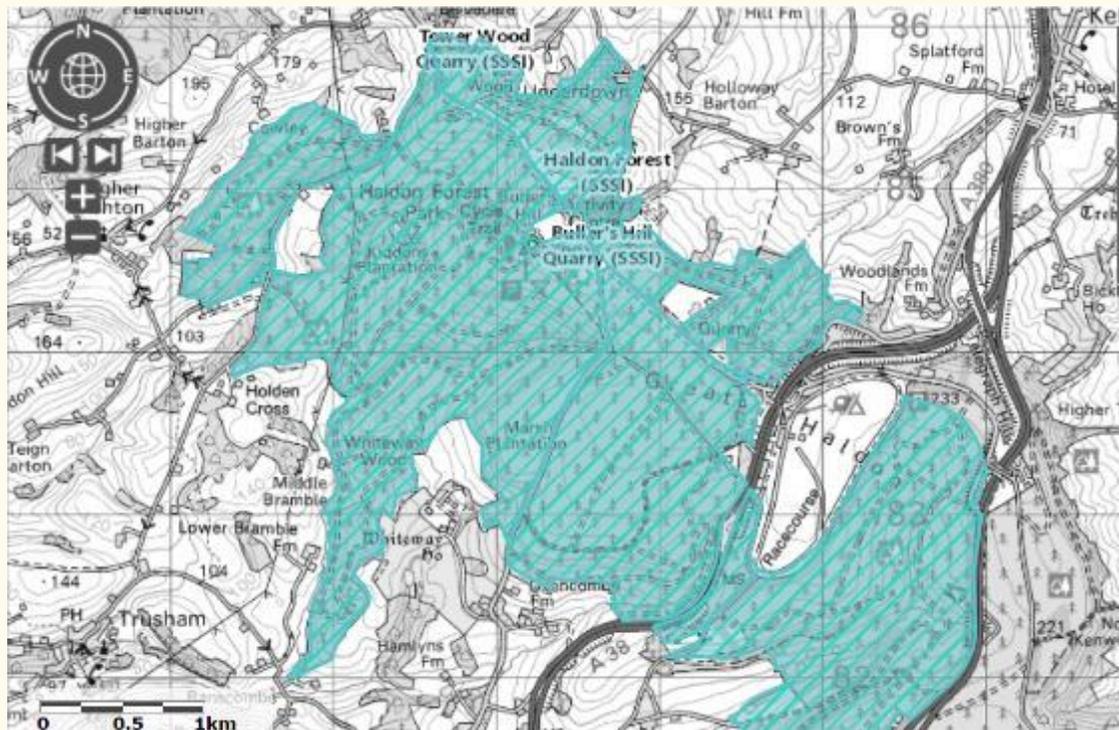


Recreation

*Accessible
Multi-purpose
Keeps people
(and their dogs!)
to paths and
away from SSSI*



Haldon Forest – a SSSI delivering multiple public goods



Incentives available

Woodland Creation
Planning Grant (WCPG)



Woodland
Carbon Code



England Woodland
Creation Offer (EWCO)



Woodland
Carbon Guarantee



Year 1

Year 2
onwards

[Further information on grants available](#)

Other grants also available from the Woodland Trust and Community Forests.



England Woodland Creation Offer (EWCO)

One off payments

Up to **£8,500 per hectare** for woodland creation

Up to **£8,000** for benefits to others public/community/ecological benefits

Infrastructure payments for woodland management/recreational access

Ongoing payments

Woodland maintenance payments – **£200 per hectare per year** for 10 years.

Also allows

Income from woodland - timber, wood fuel, carbon credits, recreation, tourism
Continued Basic Payment Scheme payments – subject to eligibility criteria

[Further information on EWCO](#)



EWCO - payments for delivering public goods

Schemes can attract all contributions if it meets all the criteria – up to a total of £8,000 (one off payment).

Biodiversity - increased wildlife supporting ecosystem

£2,800/ha (high)
£1,100/ha (med)

Protected river corridors (riparian buffers)

£1,600/ha

Improved water quality by reducing agricultural run-off

£400/ha

Close to villages and towns

£500/ha

Flood risk management

£500/ha

Recreational access – support health and wellbeing

£2,200/ha

EWCO eligibility

- Land must be in England and not already classified as woodland.
- Minimum size one hectare. Minimum block size 0.1 hectares.
- Minimum width 20 metres (10m for shelterbelts and riparian planting).
- No maximum application or block sizes.
- **Initially for work in 21/22 and 22/23**
- Joint applications allowed.
- Land must be free of existing grant schemes that has more than five months left to run at the time the EWCO application is submitted
- Woodland schemes will need to be assessed as to whether they will need an Environmental Impact Assessment.
- Proposals must be UKFS compliant.

Support from the Forestry Commission

How we can help you



Guidance on planning, grants, planting and achieving UKFS standards

We also offer advice on:



Woodland management



Priority landscapes,
species and habitats



Tree health



Productive forests



Historic sites



Deer management



Forestry Commission

'... in the Right Place'

*Woodland creation, biodiversity and
potential ecological implications*

*Leonardo Gubert MCIEEM CEnv
Forestry Commission Ecologist*

Enabling nature recovery



- Establish new networks of wildlife rich native wooded habitat – expand, buffer and join up
- Integrate many more native trees and shrubs into farmland and connect to surrounding landscape
- Encourage use of natural colonisation in suitable locations to provide nature rich habitat on route to closed canopy woodland
- Create structurally complex native woodlands through planting

Current challenges

- Land being put forward for woodland creation is often agriculturally marginal (low value) but can be of high biodiversity interest.
- Delivery of tree target is running some way ahead of other 25 YEP ambitions.
- Lack of spatial framework to inform decisions now – Local Nature Recovery Strategies and Nature Recovery Network are on the horizon.
- Knowledge of the location of remaining priority habitats, priority species and of the extent, depth and condition of peat needs to be improved.



The UKFS



The UK Government's Approach to Sustainable Forestry, covers the key elements of sustainable forestry:

biodiversity

- climate change
- historic environment
- landscape
- people
- soil
- water

Priority habitats & woodland creation

For afforestation proposals on land identified as semi natural habitat on Natural England's Priority Habitat Inventory (See www.magic.gov.uk), reference should be made to the principles contained in Operations Note 043. 'Principles for afforestation on or near priority habitats (PH)'.

<p> Forestry Commission England Forest Services Update Note 26</p> <p>Principles for afforestation on or near priority habitats</p> <p>Purpose</p> <p>To clarify the role and approach of the Forestry Commission when considering afforestation on or near priority habitats (as defined by Section 41 of NERC Act 2006 see Annex 4) in order to meet all our regulatory requirements and the balancing duties of the Forestry Act 1967 (as amended). Please note that this is a restatement of existing policy to aid consistency of decision making across the Forestry Commission and does not present a change in policy. It is a framework for decision making so an element of judgement will still be required depending on the sites' specific characteristics and features.</p> <p>Background</p> <p>Following the launch of the woodland creation planning grant (WCPG) questions regarding afforestation on priority habitats have been raised through discussion of an application for a large productive, mixed (predominately conifer) woodland.</p> <p>The FC's role and responsibilities for biodiversity and the relevant current policy and guidance are set out below along with the key principles which are applied to afforestation.</p> <p>Our approach is framed by current regulation, standards, government policy, strategy and guidance that apply to forestry and the natural environment but is rooted in the 1988 Ministerial Direction. The current position supported by the Environmental Impact Assessment process gives us flexibility to consider afforestation of priority habitats with predominantly broadleaved trees and a small component of conifer species (maintaining the overall area of priority habitats).</p> <p>The principles detailed below underpin our core corporate objectives to protect and expand England's woodlands. The principles described are designed to promote confidence, from all sectors, in light touch regulation and ensure appropriate woodland expansion.</p> <p>Current policy and regulatory requirements</p> <p>The Forestry Act (1967) was amended in 1985 to broaden the responsibilities of the Forestry Commissioners to encompass conservation of fauna and flora alongside our longstanding roles in afforestation and forest management. The Wildlife and Countryside (Amendment) Act 1985 amended the Forestry Act 1967 by inserting a new Section in</p> <p>30 June 2017 Page 1 of 6</p>	<p> Forestry Commission England Grants & Regulations Operations Note</p> <p>Operations Note 043 15 February 2018</p> <p>Principles for afforestation on or near priority habitats</p> <p>Purpose</p> <p>This Operations Note is published to clarify the principles to be adopted when considering afforestation on or near priority habitats (as defined by Section 41 of NERC Act 2006).</p> <p>Please note that this is a restatement of existing principles and does not present a change in policy and is published to aid consistency of decision making when proposing afforestation in such locations.</p> <p>Background</p> <p>There are approximately 1.1 million ha of non-woodland priority habitats in England, but only a small proportion – approx. 440,000ha is capable of supporting woodland, (the rest is too wet or too salty). Non-woodland priority habitats are a scarce resource and a key component of our woodland networks and resilient landscapes, hence the policy priority in the England Biodiversity Strategy to maintain or restore them.</p> <p>The sensitivity mapping carried out to inform the Environmental Impact Assessment (EIA) threshold changes in 2017 showed that around two million hectares of land in England is 'low risk' i.e. it does not contain any priority habitats or other sensitive features, such as prime agricultural land.</p> <p>The Low Risk map exists for the whole country and afforestation proposed in these areas is likely to follow a simpler and faster regulatory path. Areas with priority habitats are listed as 'high sensitivity' on Opportunity Maps and maps of Low Risk areas. Woodland creation may still be possible in the high sensitivity areas, but applicants will need to consider fully the sensitivities of the site in the woodland design.</p> <p>The EIA process, from screening to statement, gives a transparent mechanism for demonstrating how proposals have considered the sensitivities of a site. The Environmental Statement process provides an opportunity to refine or amend any area incorrectly specified as priority habitat on the inventory.</p> <p>The Forestry Commission needs to balance economic and environmental priorities while meeting regulatory requirements. The principles below summarise and provide guidance as to how this can be achieved.</p> <p>Principles underpinning afforestation on or near priority habitats</p> <p>Version 1.0 Issued 15.02.2018 FC Grants & Regulations- Operations Note Page 1 of 3</p>
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The 8 Principles

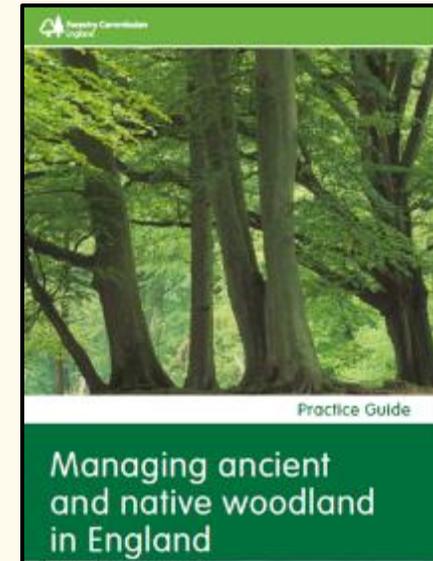
1. All proposals have to meet the requirements of the UKFS and also comply with the various regulatory requirements relating to forestry.
2. There is a general presumption against afforestation of non-wooded Section 41 priority habitats.
3. Can consider changes to existing PHs, which may include planting broadleaves and mixed woodlands on poor quality / lower value sites.
4. Applicants must engage with Natural England to consider any proposals which include potential changes to existing PH that would be regarded as a potential loss or damage.
5. Where afforestation is appropriate on a site, the planting design should address existing biodiversity interest of a site by using a hierarchy of:
 - (a) avoid (b) mitigate or (c) compensate for unavoidable loss.

The 8 Principles

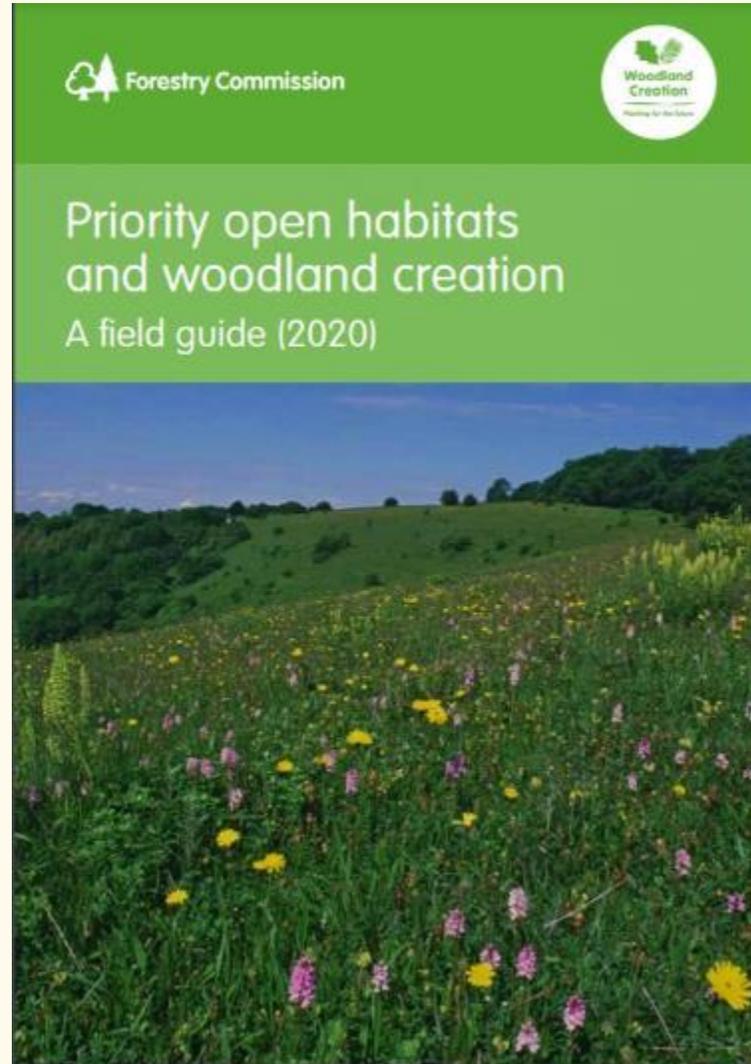
6. Any afforestation on priority habitat should adhere to the definition of native woodland given in the practice guide 'Managing ancient and native woodland in England'.

7. Afforestation should, as a minimum, result in no net loss of biodiversity. Where public funds have been provided, it is reasonable to require a net gain as a result of afforestation.

8. The standard metric for assessing net gain or loss of habitat is currently a simple area measurement (hectares).



Priority habitats and woodland creation



Forestry Commission Area Ecologists

- 5 Area Ecologists appointed from spring 2021 onwards
- Separate from Forestry England's District Ecologists

Our Ecologists

Managed by the PEMs in each area team, with Jay as the confirming officer.

Area level advice on woodland creation, woodland management and partnership working

Support to PAT Natural Environment team on national policy & guidance eg BNG, species recovery, reintroductions, biological recording, grazing ecology etc.

Phil Wilson

Lisa Kerlake

Adrienne Bennett

Leonardo Gubert

Molly Dailide

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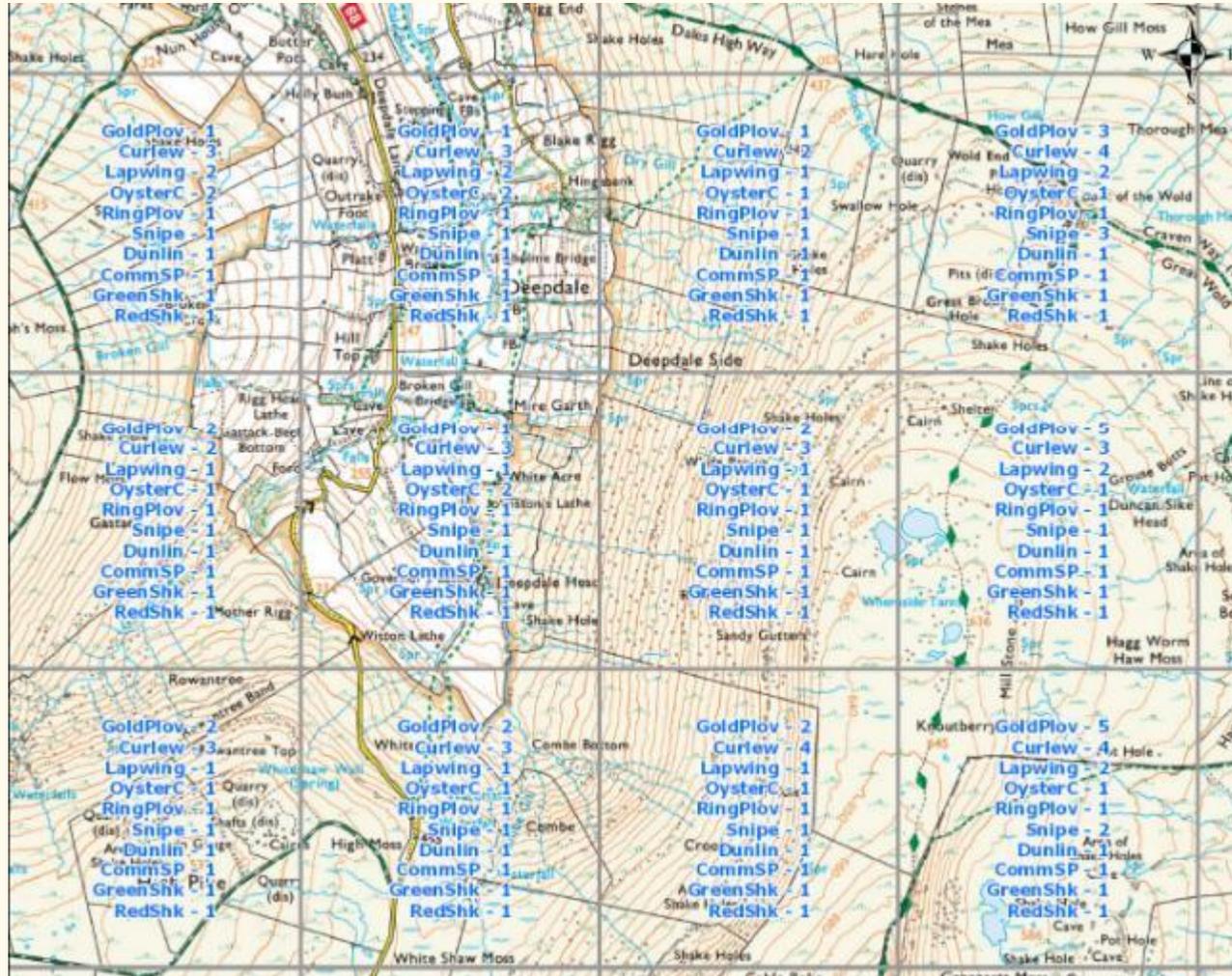
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PAT meeting 10 Feb

Assessing a woodland creation proposal

Assessment item	Area Ecologist comments
Initial observations based on assessment of aerial photography and OS mapping	
Is the site above the moorland line?	
Soil	
Peat present	
Protected areas status (include link to online notifications)	
Consult Natural England (Y/N)	
Are priority habitats mapped on or in close proximity to the site	
Could an unmapped priority open habitat occur on the site footprint?	
Is the site or nearby landscape targeted under CS for certain species	
Wader sensitivity map	
Are farmland birds recorded as breeding on or in close proximity to the site footprint?	
Is the site mapped as/does it occur close to a mapped IBA – also check protected birds area	
Consult RSPB (Y/N)	
Is the site mapped as/does it occur close to a mapped IPA	
Consult Plantlife (Y/N)	
Are there other CS/FC targeting layers <u>i.e.</u> black grouse, willow tit, woodland bird assemblage and red squirrel (habitat creation)	
Required surveys	
Other comments	

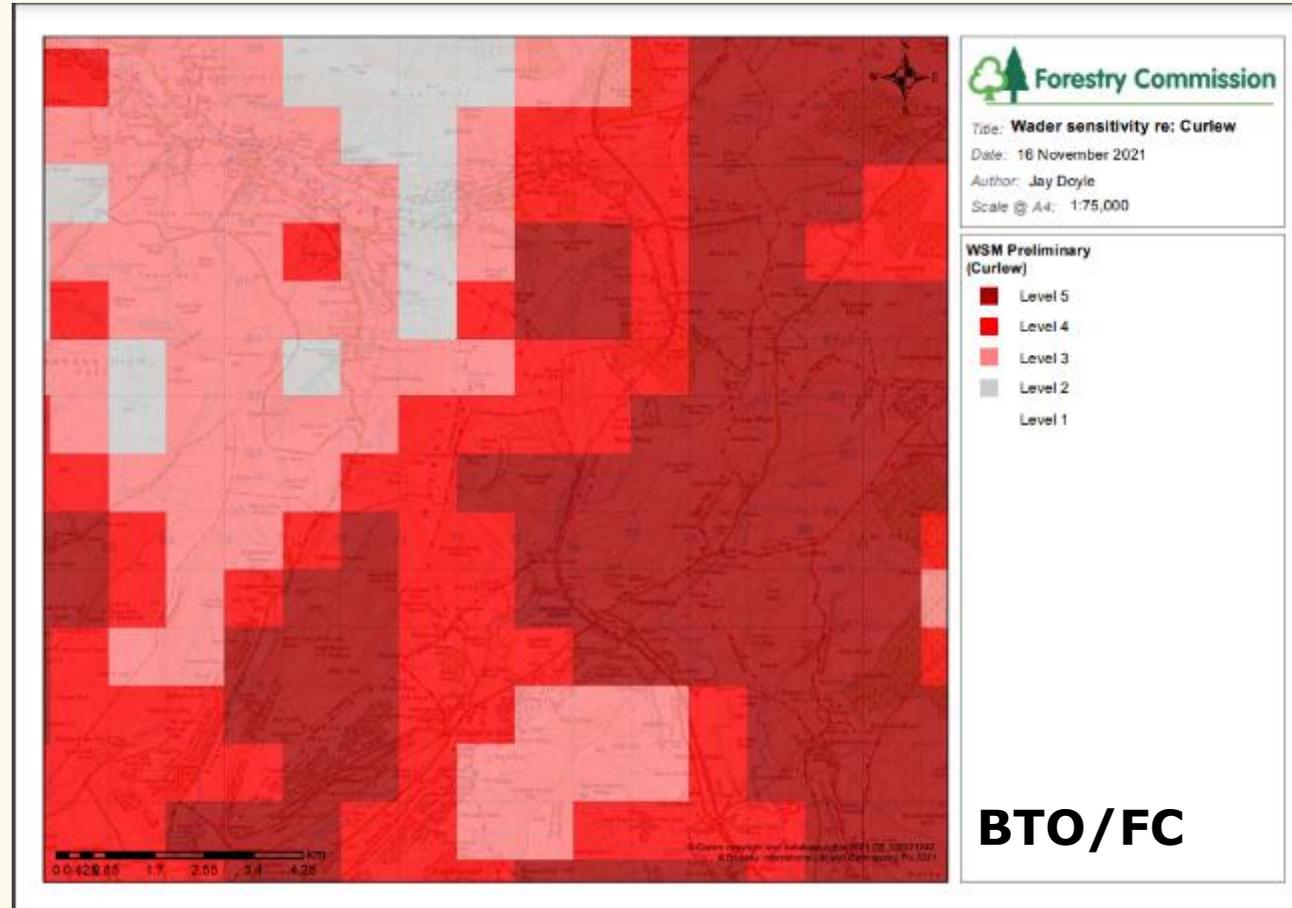
Wader hotspot mapping



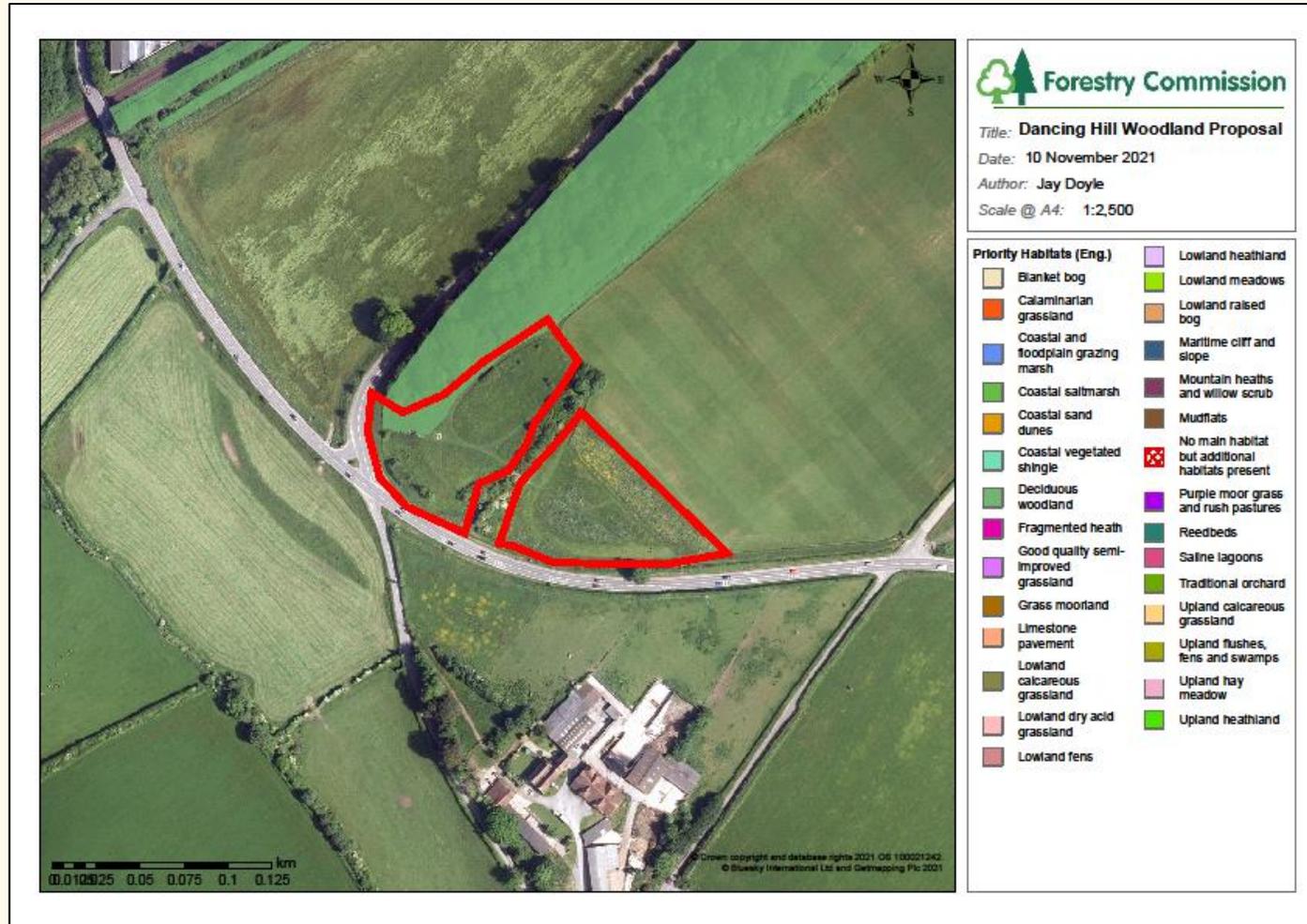
- Conservation and recovery of breeding wader populations key priority
- Woodland creation can adversely affect populations
- FC/BTO model maps predicted relative abundances of 10 species at 1km square resolution
- Provide key to unlocking spatial solution to wader recovery

Wader hotspot mapping

Allows development of zonal maps and decision support tools which can guide wader conservation, forest expansion and other land-use changes



Botanical hotspot mapping



Botanical hotspot mapping

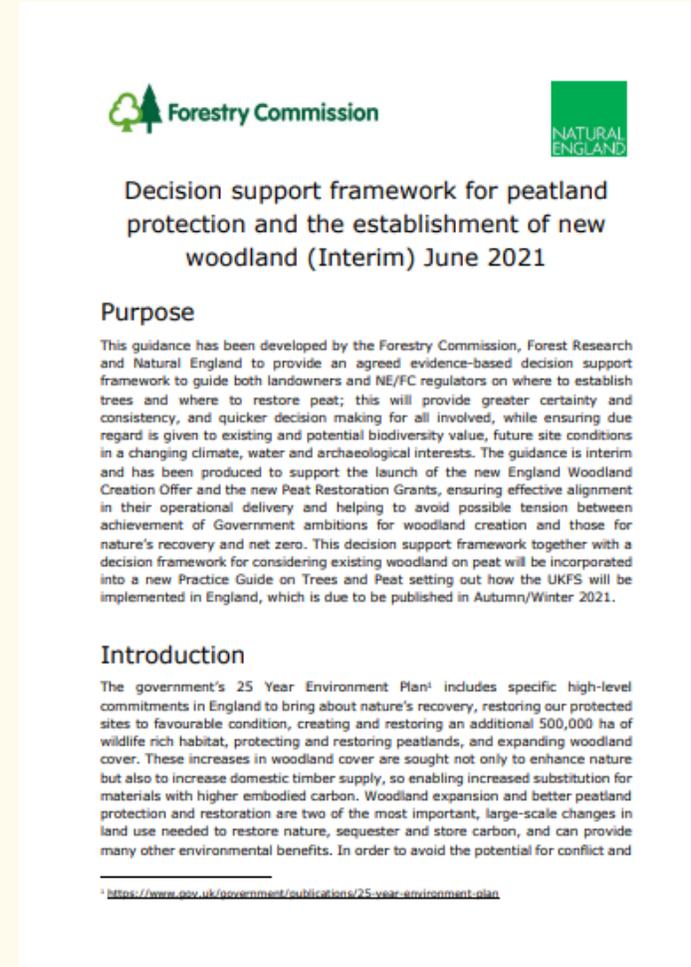


- Mapped at 1km square scale
- Priority species
- Indicators of good quality habitat
- Sensitivity mapping e.g. green, amber, red?

(BSBI, NE, WT)

Peat and trees - development of decision support tools

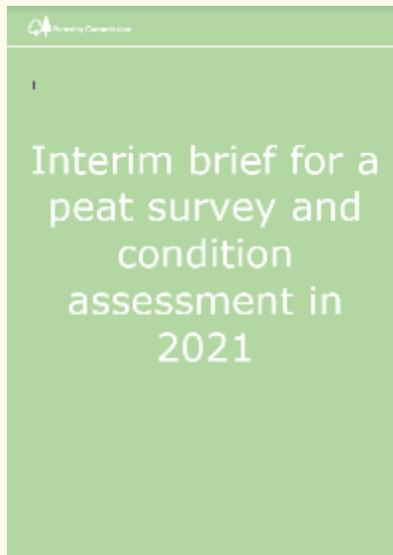
- Peatlands critical to achieving net zero and nature recovery ambitions.
- New decision support tool and guidance marks an important step change in peatland protection.
- Woodland creation will not be grant funded on peat of >30 cm or thicker OR on any shallow peat or peaty soils associated with this deep peat (>30cm).



Potential outcomes:

- No further ecological survey/assessment needed
- One or more of peat, vegetation (NVC) or breeding bird survey required (or other surveys in some cases)
- Preliminary Ecological Appraisal required – which may then highlight need for further surveys/assessments in due course

Peat



Vegetation



Breeding Birds





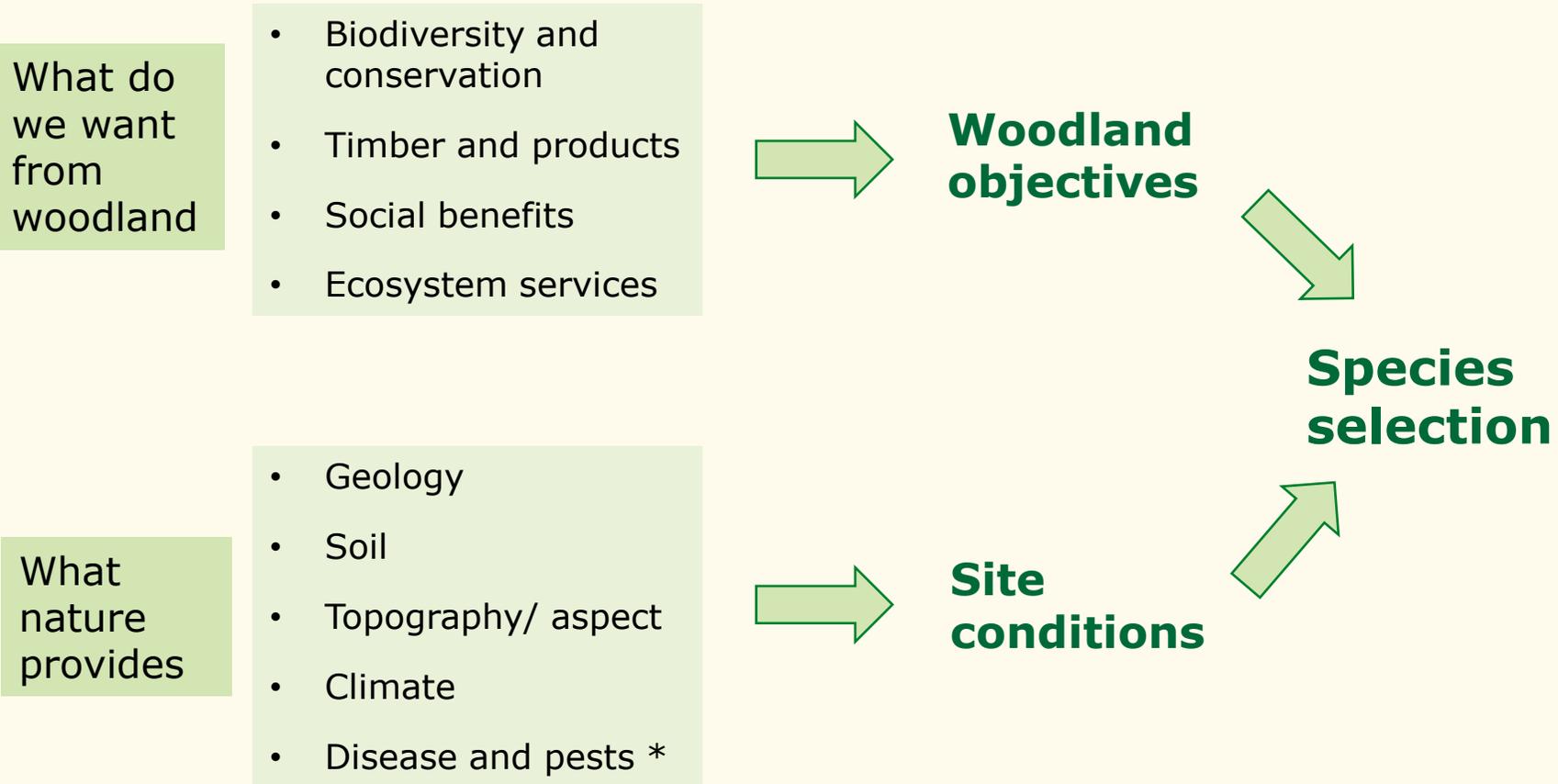
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The Right Tree...

...is a **species** that:

- is **adapted** to have the **best chance of survival** in a given place
- will **fulfil purposes** including for biodiversity, timber value and socio-economic benefits
- will not cause undue **negative impacts**
- thrives **now** and into the **future**.

Factors influencing the choice of tree species



* Not always natural

Tree choice: Where to start

Biodiversity and conservation

- **Habitat:**

- Local woodland type
- National Vegetation Classification (NVC)



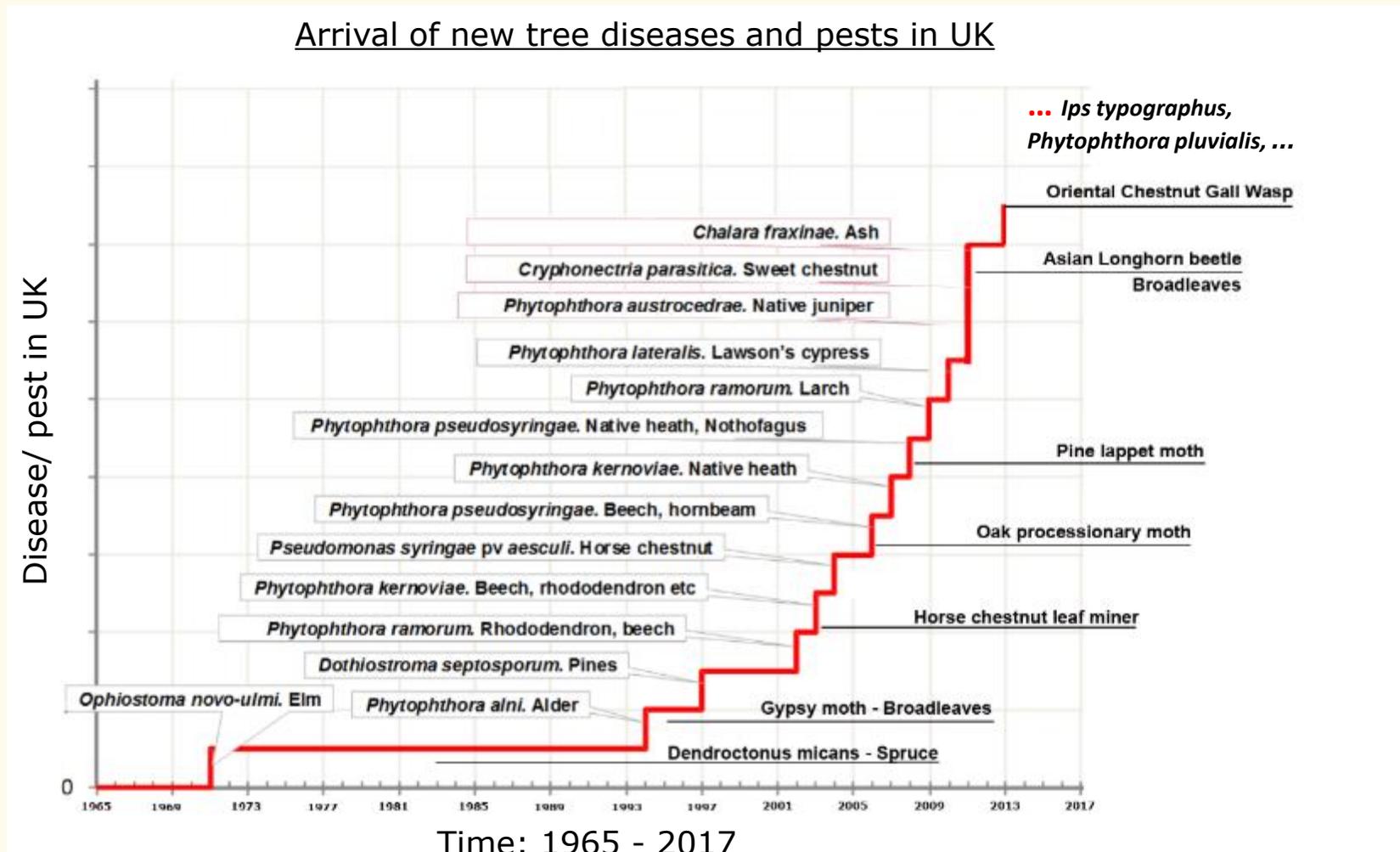
- **Priority woodland species:**

- Plants or wildlife in greatest need of woodland locally? What are their requirements?
- E.g. Willow tit, brown hairstreak, fungal and lichen communities

- **Woodland management aim** to deliver desired habitat type:

- High forest
- Coppice
- Linear woodland
- Wood pasture

Tree choice: Where to start – plant health



Selecting the Right Trees:

Informing your choices

Desk-based:

- Priority habitats (Right Place)
- Designated sites and established woodlands (e.g. SSSIs, ASNWs)
- Ecological Site Classification (ESC)
- Water and geology
- Local priority species: Plants and wildlife

Field-based:

- Soil survey/ pits
- Vegetation survey (on-site and adjacent)
- Landscape views

Expertise:

- Forestry Commission:
 - Woodland (Creation) Officer
 - Policy & Advice Team
 - Forest Research
- Partner organisations and specialists
- Forestry agents and advisers
- Local knowledge
- Timber industry and sawmills

Dorset species: Example species mixes

NB: Highly dependant on location.

Timber	Riparian	Broadleaf high forest	Wood pasture
Douglas fir	Willows	Oak (mainly ped.)	Oak
Western hemlock	Poplar (native if possible)	Beech	Field maple
Sitka spruce	Alder	Lime (sp.)	Willow and poplar (wetter sites)
	Birch	Grey/ goat willow (wetter sites)	Whitebeam
Oak (ped.)		Rowan	Sycamore
Sycamore		Hornbeam	Scots Pine
Black walnut		Wild cherry	
Birch (nurse crop)			
Sweet chestnut	Ash *	Ash *	Ash *

Native shrub species should be incorporated into all woodlands including commercial plantations.
Vital for wildlife and helping woodlands blend into the landscape.

Tree species: Practical tips

- The Right Trees need the right design
 - Consider where each species will thrive
 - Tolerance to shade/ exposure, drought/ water, salt, browsing
 - Intimate mixes vs cluster planting vs well-spaced
- Avoid monocultures
- Avoid too many species
- Seed provenance
- Site conditions and preparation

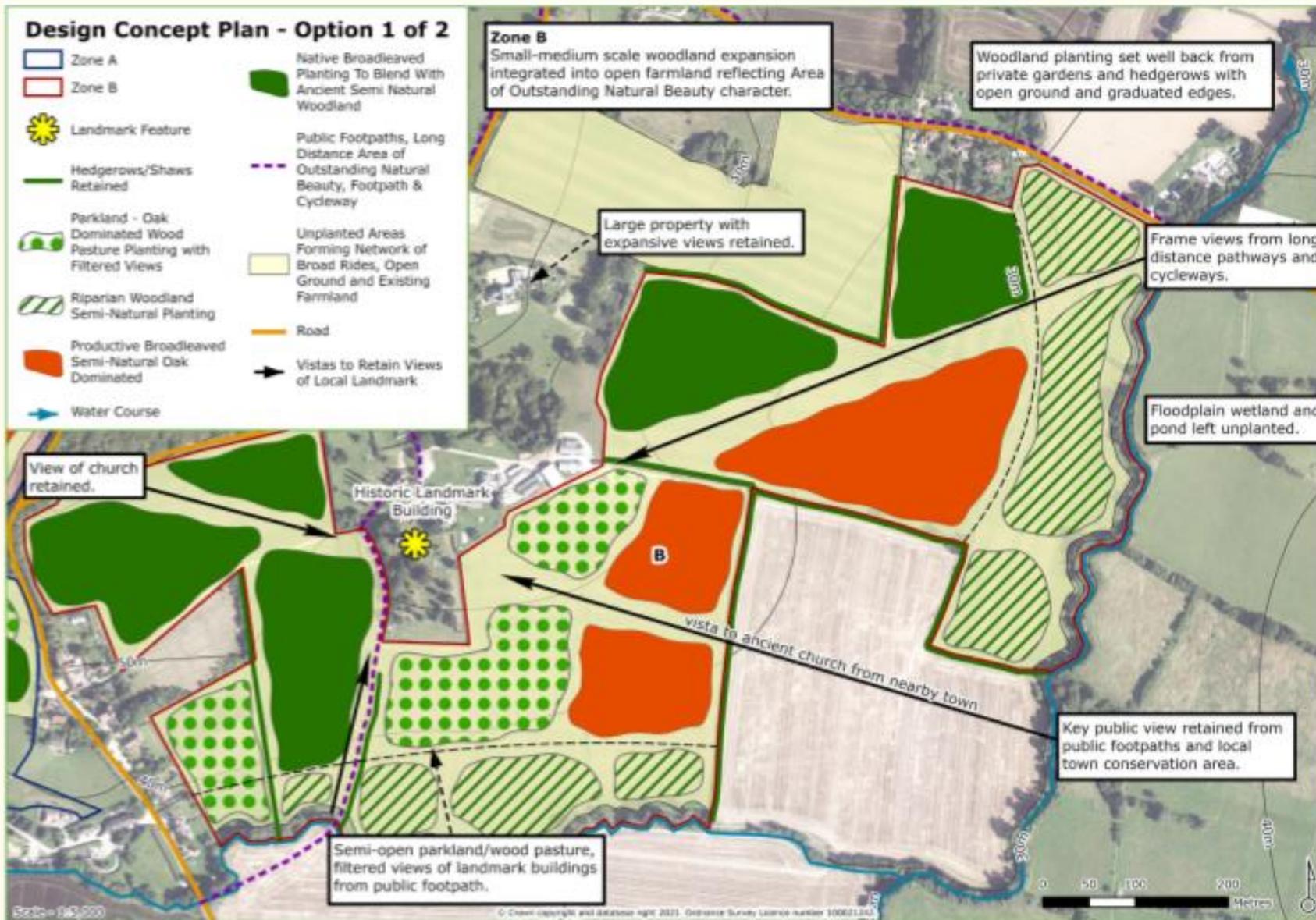


A healthy tree today has a better chance of survival tomorrow

Woodland Creation Planning Grant (WCPG)

Purpose: To produce a Woodland Creation Design Plan to UK Forestry Standard

- Stage 1: Information gathering
 - Management objectives (“what we want”)
 - Site conditions (“what nature provides”)
 - Identifies further information required and who to consult
- Stage 2: Producing a Woodland Creation Design Plan (WCDP)
 - Uses information gathered during Stage 1
 - Considers site constraints features to inform woodland design: Historic – habitats – species – landscapes – water – deer
 - Teases out unsuitable tree species or designs
 - Final product: WCDP
- >5ha proposals only



Example Woodland Creation Design Plan

English Woodland Creation Offer (EWCO)

Purpose: Funding the planting of woodland

- Aims to 100% offset the costs of woodland establishment
- Requires UKFS compliant woodland design (which can be produced via WCPG)
- Minimum proposal size of 1ha

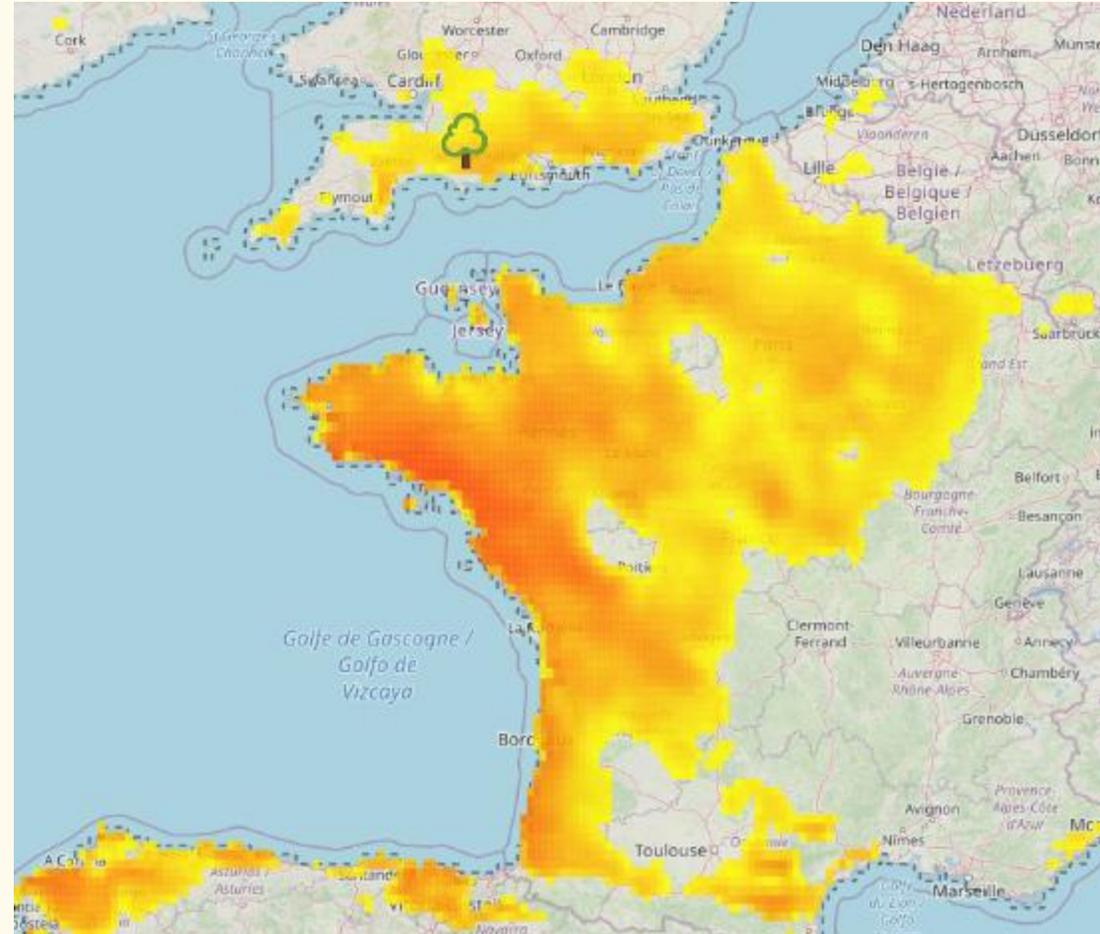
- Tree species selection:
 - Information: Desk-based, Site-based, Expertise
 - EWCO application form will identify where each woodland type will be planted, and which tree species

- Natural colonisation:
 - Allows for tree establishment through 100% natural dispersal or facilitated with planting
 - Particularly suited to sites adjacent e.g. ASNW

Planting for the future

Considerations

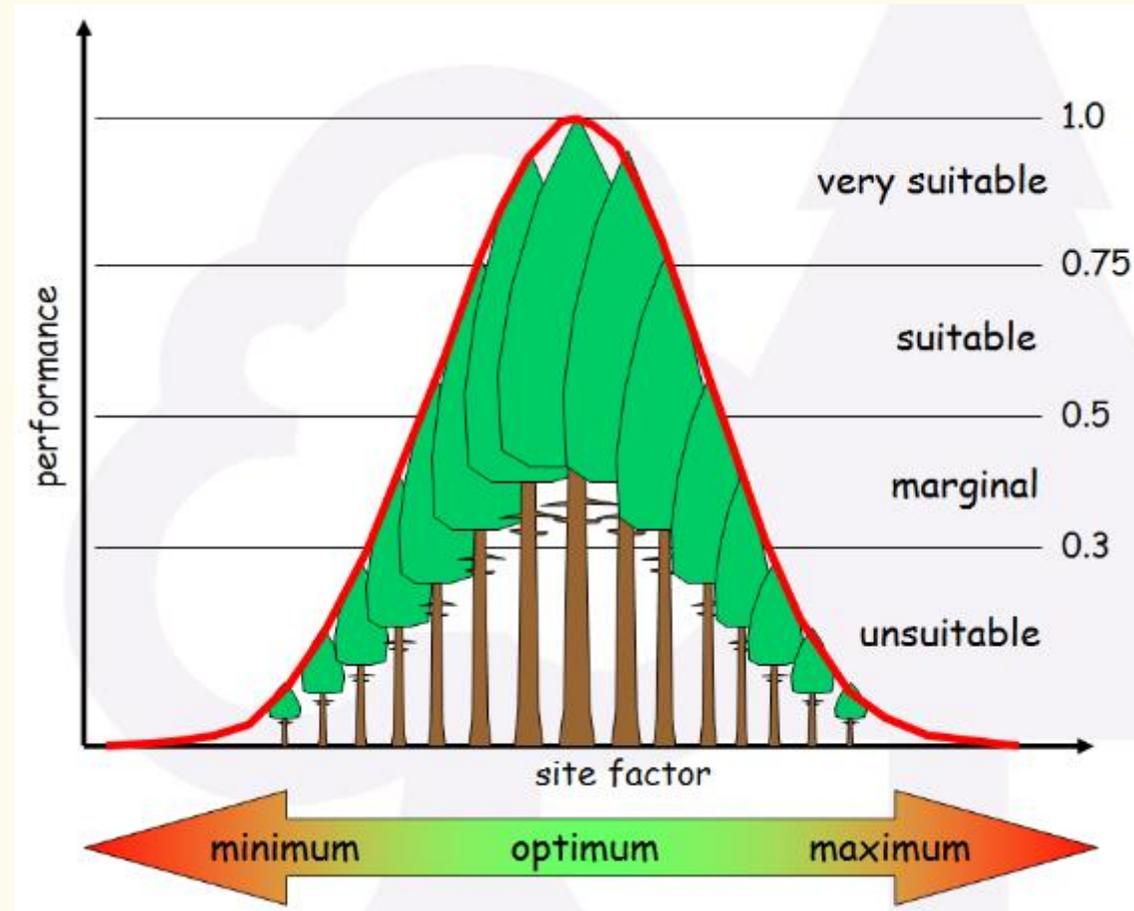
- *Remember*, a healthy tree today has a better chance of survival tomorrow
- *However*, tree species are typically limited to narrow latitude bands across the globe
- *And*, Dorset's climate in 2075 is projected to be similar to that seen in coastal mid-France today
- *Therefore*, some currently native trees will struggle



Planting for the future

Ecological Site Classification (ESC)

- Required for Woodland Creation applications
- Tree suitability based on current and future climate variables
- Score for each species
- Can be applied to commercial (yield) and general woodlands
- Forest Development Types





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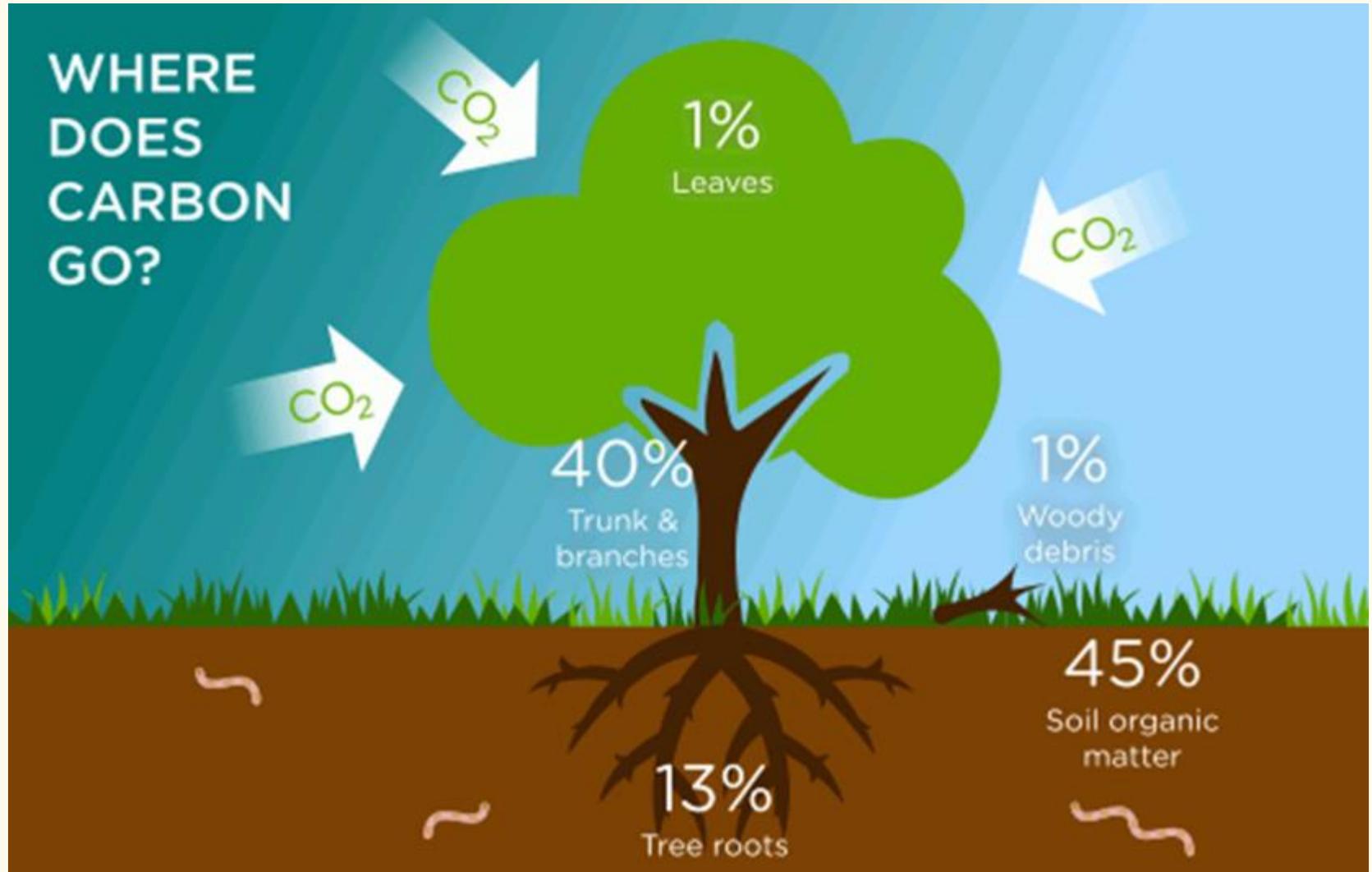
Carbon

Jon Burgess

Local Partnership Advisor



Carbon sequestration



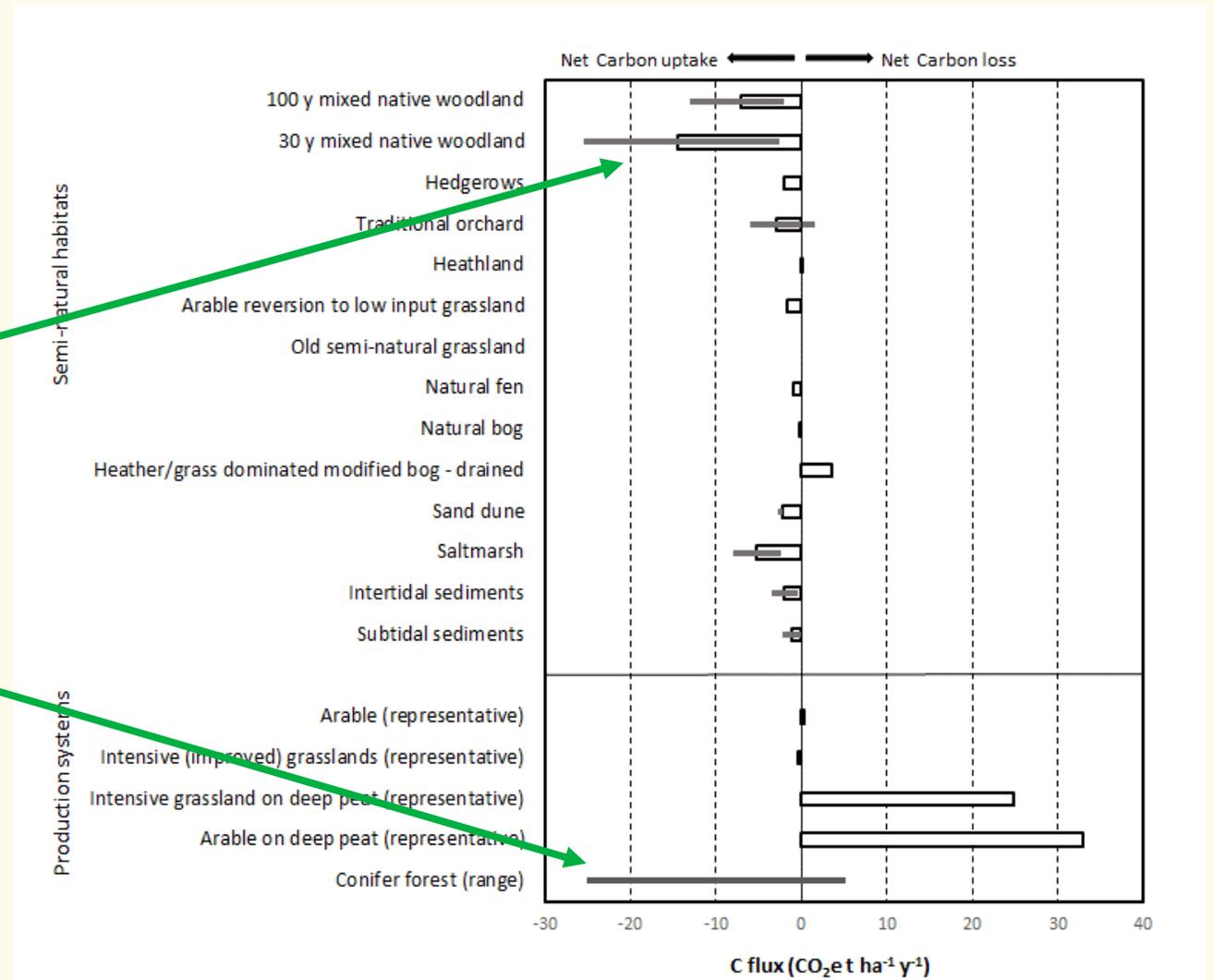
NE Report

Carbon sequestration by habitat

Broadleaf Woodland

Conifer Woodland

Up to 25 $\text{CO}_2\text{e t ha}^{-1} \text{y}^{-1}$



Carbon capture

Role of trees in the UK

182 Mt cumulative by 2050

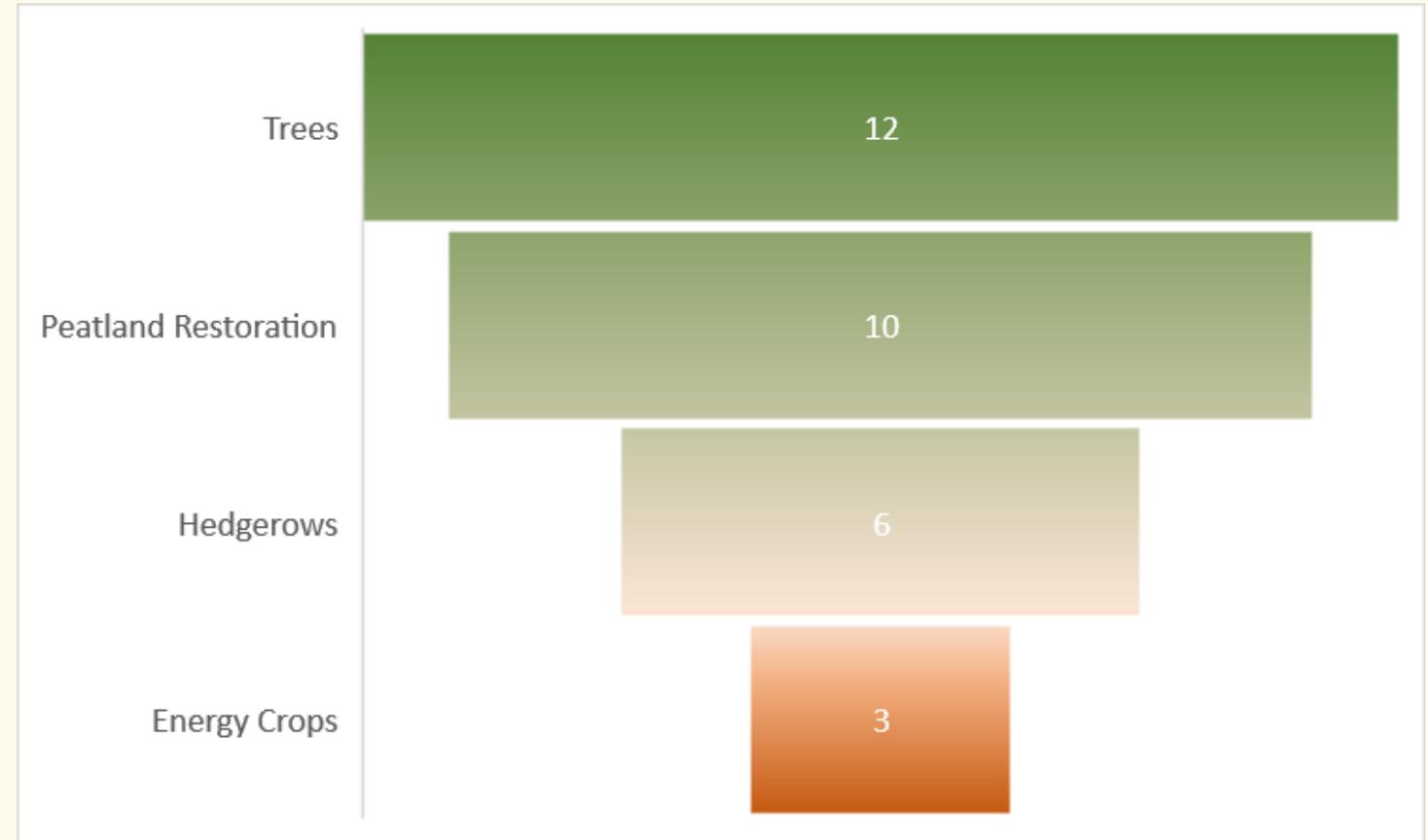
"More productive forestry, higher planting density and higher yielding conifers used to substitute other building materials"

155 Mt cumulative by 2050

"More biodiverse planting woodlands, lower planting density and a higher mixture of broadleaves"

UK Sixth Carbon budget

Megatonnes per year of sequestered Carbon



Species

Dorset

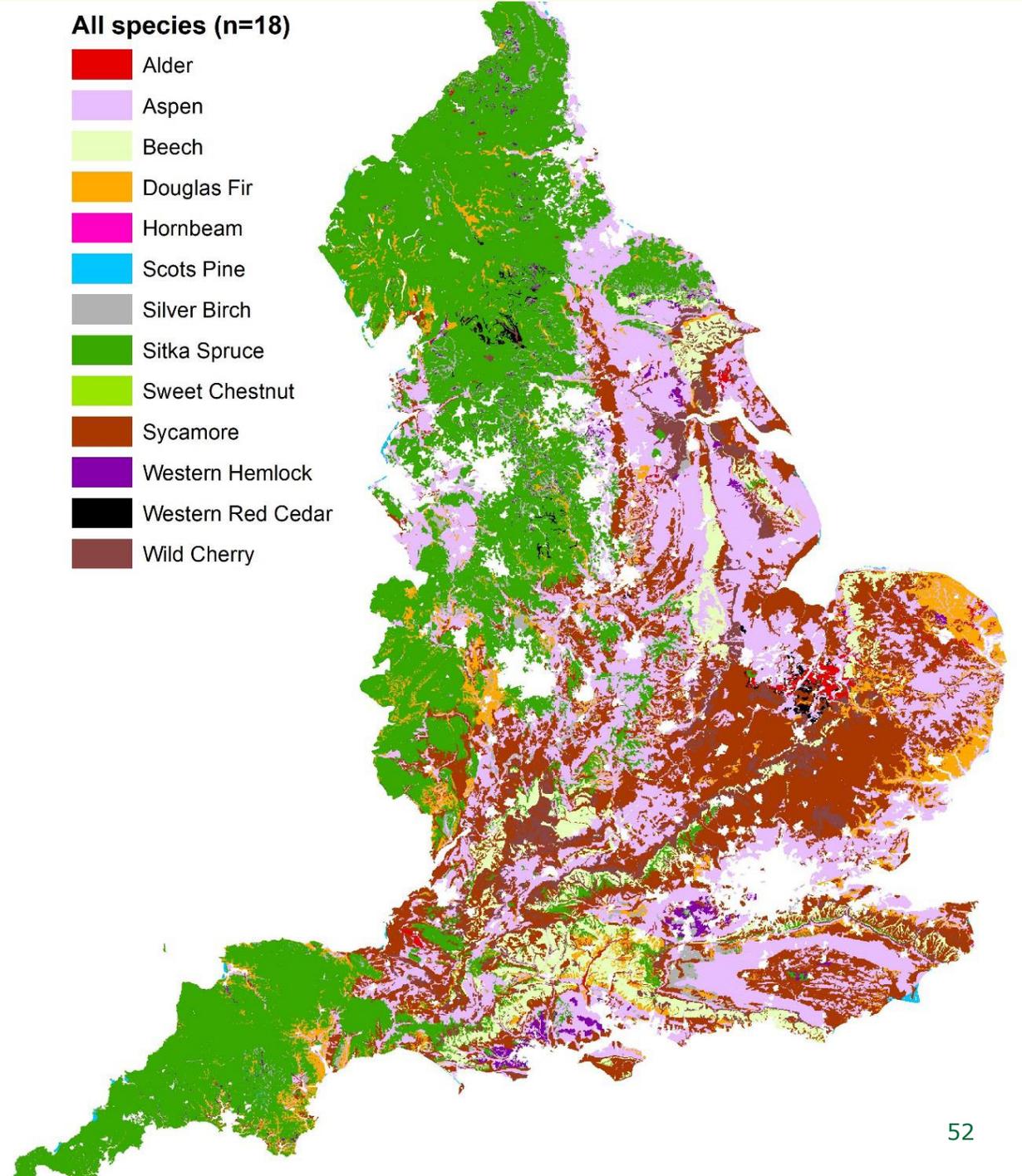
- Sycamore
- Western Hemlock
- Beech
- Douglas Fir
- Sitka Spruce

List of 18 species considered

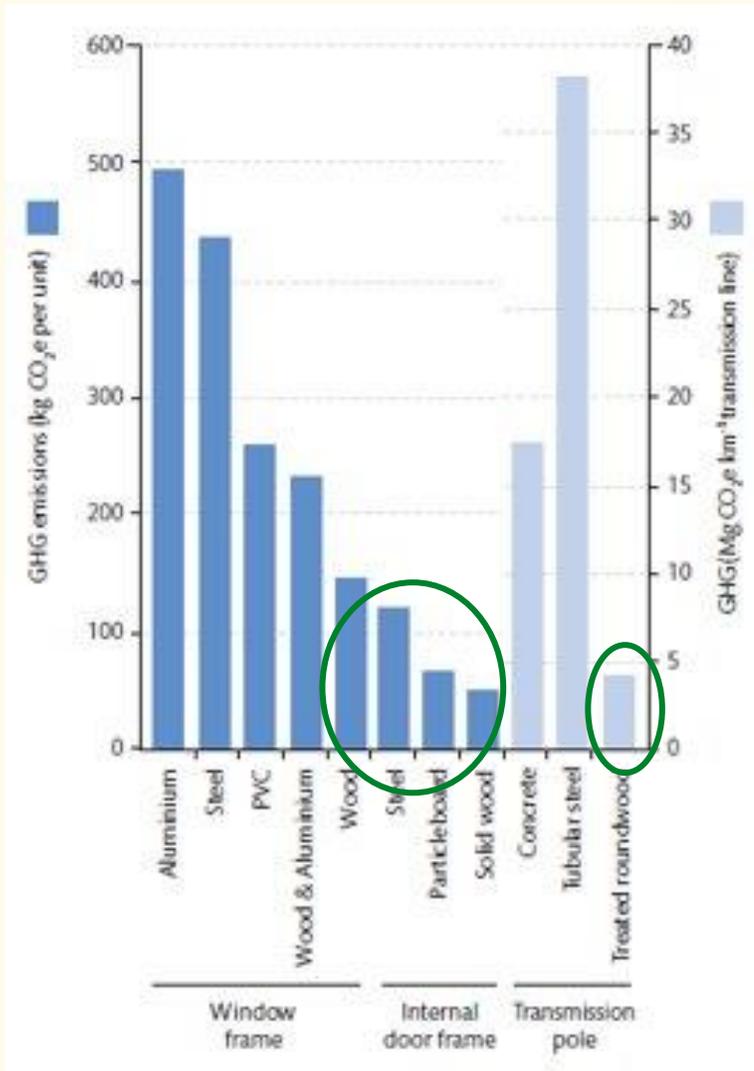
Eucalyptus grows twice speed of Sitka!

All species (n=18)

- Alder
- Aspen
- Beech
- Douglas Fir
- Hornbeam
- Scots Pine
- Silver Birch
- Sitka Spruce
- Sweet Chestnut
- Sycamore
- Western Hemlock
- Western Red Cedar
- Wild Cherry



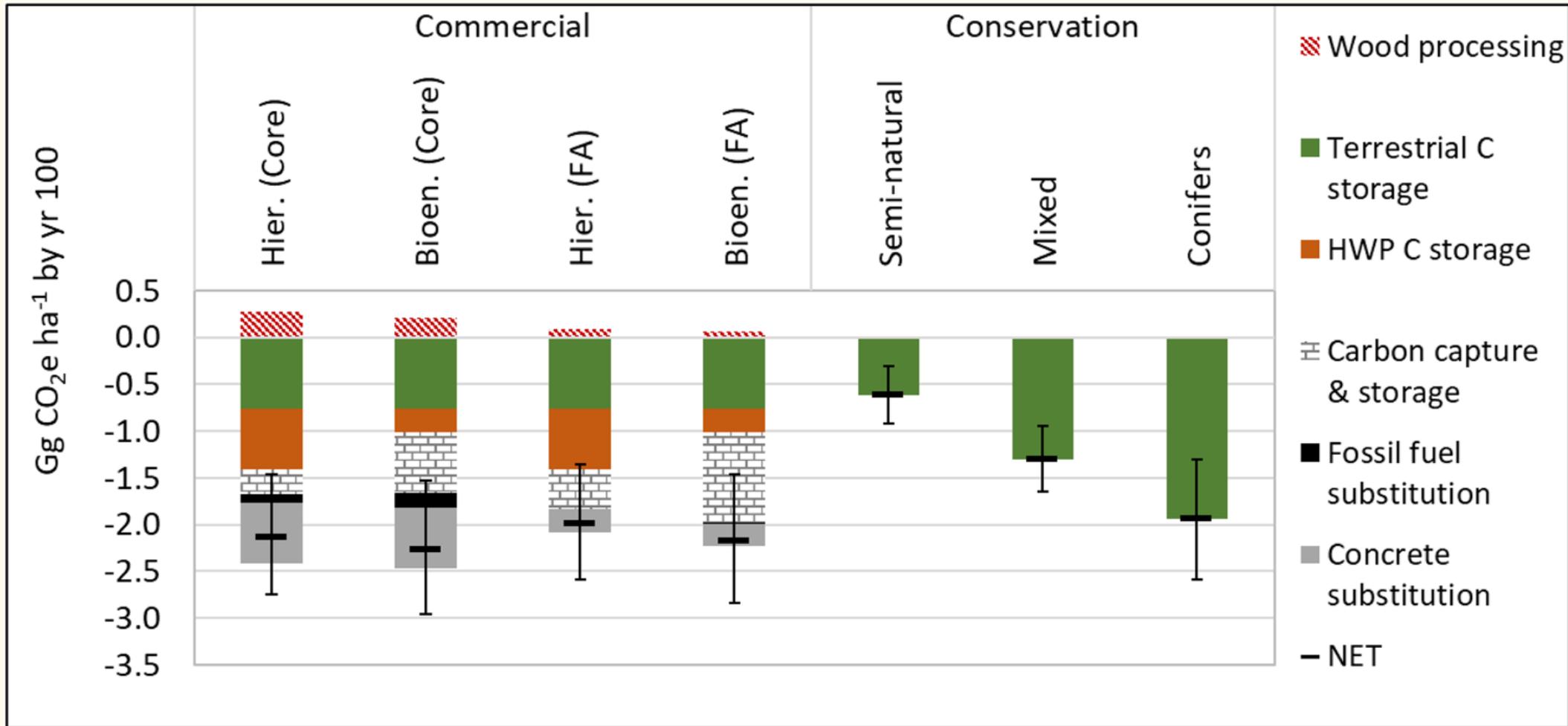
Carbon: Sequester and Store



- Substitute for carbon emitting materials
- 'Whole-life' costs
- An additional 14 Mt CO₂e yr⁻¹
- Can be reclaimed and reused at end of life

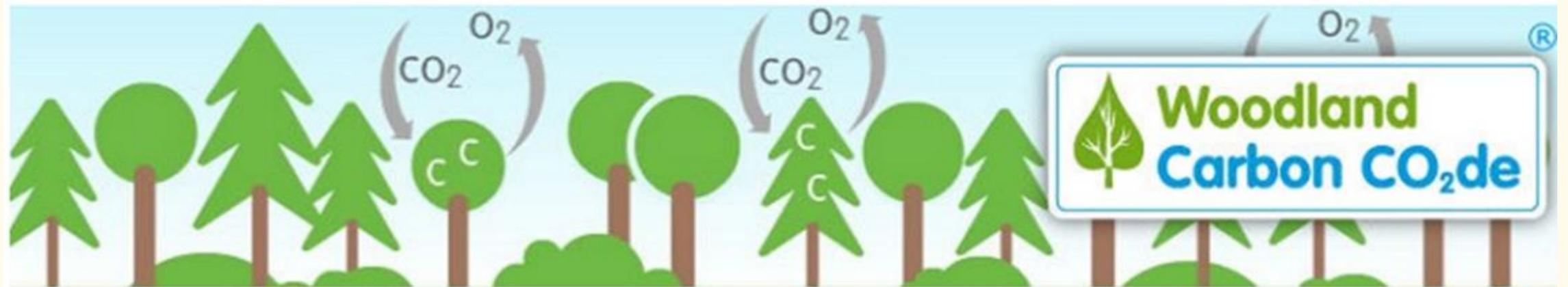


Including substitution



Woodland Carbon Code

- Consistent - International standard
- Trustworthy - Independently audited
- Transparent – published register



OUR OWN WOODLAND AND PEATLAND

BREWDOG FOREST



**BY 2022, WE WILL HAVE PLANTED
ONE MILLION TREES.**

Our carbon emissions are our problem. So, we are going to own the solution and fix it ourselves.

We have purchased 2,050 acres of land in the Scottish Highlands just north of Loch Lomond, which is currently used as grazing land.

We are going to create 1,500 acres of broadleaf native woodlands and an ecosystem with the Woodland Carbon Code accreditation program. As well as sequestering carbon, woodland creation also promotes Biodiversity, natural flood attenuation and drives rural economic development.

Over the next few years we will plant over one million trees.

Restored peatlands are highly effective for CO₂ sequestration, which is why we are dedicating 550 acres to peatland restoration, working with the Peatland Code directly.

All of the carbon removal work at the BrewDog forest will be third party verified with regular share updates and reports on our progress.

In addition to woodland creation and peatland restoration, we are also going to create a sustainable BrewDog campsite at the location and run sustainability retreats and workshops at the BrewDog Forest.

"The BrewDog Forest will be one of the largest native woodlands created in the UK for many years."

DAVID ROBERTSON, Director
SCOTTISH WOODLANDS

Offsetting in action

Auditable 'Carbon Neutral' claims

- Payment for ecosystem service
- £20 carbon credit average
- Blended finance
- Over 3m carbon units sold





Thank you for listening

Any Questions?