

# Creating & managing forests to deliver nature-based solutions

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**An Roinn Talmhaíochta,  
Bia agus Mara**  
Department of Agriculture,  
Food and the Marine



## Introduction

DAFM regulates forestry in Ireland – afforestation, forest roading, tree felling (thinning, clearfelling, reforestation) (Forestry Act 2014, S.I.191 of 2019)

Competent authority (ref. Habitats Directive, EIA Directive, WFD, etc.)

Also supports appropriate forest activities *via* the Forestry Programme, with various schemes



Ecosystem services embedded in forest policy, e.g. a strategic objective of forest policy, as per ***Forests, Products & People*** (July14):

*To ensure that afforestation, management of existing forests and development of the forest sector are undertaken in a manner that ensures compliance with environmental requirements and objectives and enhances their contribution to the environment and their capacity for the provision of public goods and services [a.k.a. ‘ecosystem services’].*

Likely to emerge strongly from the current **Project Woodland** review. At its launch (25<sup>th</sup> Feb), Minister of State Senator Pippa Hackett:

*Forestry is central to of many of this Government’s and indeed the EU’s policies particularly on climate action, biodiversity and rural economic development. [...] If the right tree, is planted in the right place, everyone will gain. Jobs will be supported, communities will enjoy recreation and other benefits, and biodiversity will thrive.*



Presentation highlights schemes with a *particular* focus on delivering ecosystem services, esp. biodiversity...

- Native Woodland Conservation Scheme
- Native Woodland Establishment Scheme
- Woodland Environment Fund
- Woodland Creation on Public Lands Scheme
- Continuous Cover Forestry Scheme
- Agroforestry Scheme

(... adds to the various procedures, safeguards & measure to protect & enhance the environment during 'standard' forestry activities & operations)

**Experiences gained & lessons learnt by the forestry sector, shows way(s) forward...?**

**Sorely needed in context of the current environmental crises...**



## Native Woodland Scheme

Two elements:

- NWS Establishment (options 'GPC9 & 10' under Affor. Scheme): *new* native woodland on greenfield sites
- NWS Conservation: restore *existing* native woodlands / *convert* conifer stands to native woodland *via* CCF or at refor.

Based on partnership since late 1990s between DAFM, Woodlands of Ireland, NPWS, Heritage Council, Inland Fisheries Ireland, etc.

Supported by extensive training & technical publications (DAFM & Wofl)

Based on clear ecological principles – most appropriate native woodland type, native planting material, minimum site inputs, future management under CCF...

NWS Est.



## NWS Cons. – restoration





**NWS Cons. – conversion  
*via* transformation or (as  
shown) replacement**



Related...

## Woodland Environment Fund

Encourage businesses to engage in native woodland creation

Contribution to farmer at planting, in addition to NWS Est. grant

Long-term (15 year) engagement between business & farmer, demonstrates corporate social responsibility, commitment to Global Sustainability Goals

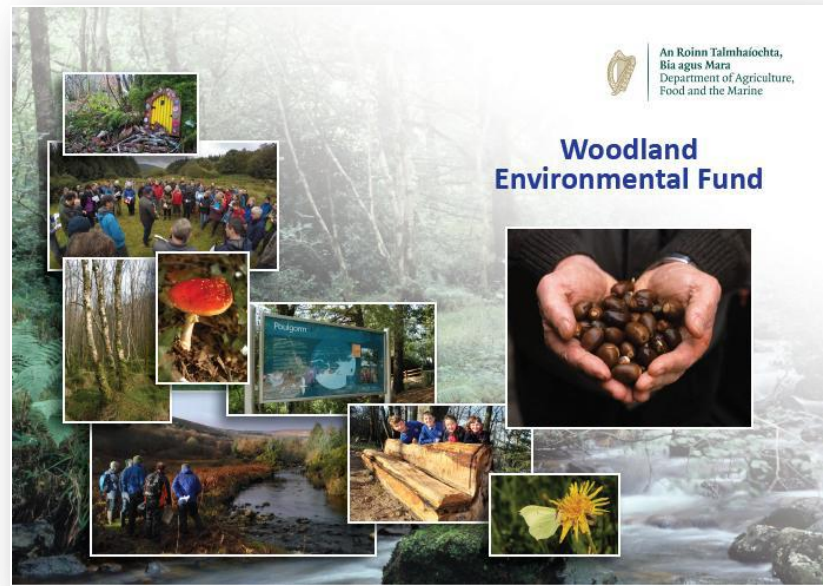
## Woodland Creation on Public Lands Scheme

NWS Est. for public bodies...

...encourage them to create new native woodland to meet their own goals ref. carbon, biodiversity, water (and amenity, if opted for)

Launched in Aug. 2000, DAFM working with CARO\* in outreach to Local Authorities

\* Climate Action Regional Offices



## Host-A-Hive

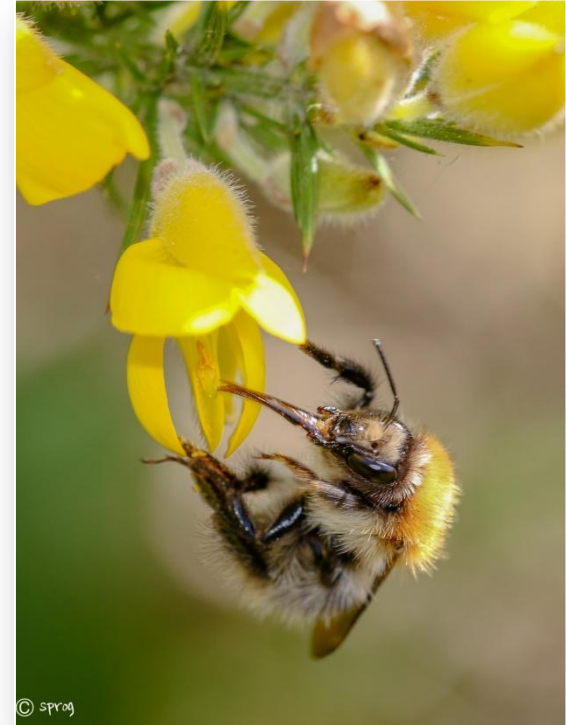
May 2019 (World Bee Day)

Encourage native woodland owners (under NWS Est.) to contact local beekeepers, to offer woodland as location for hive

In partnership with: Woodlands of Ireland, Federation of Irish Bee Keepers & the Irish Beekeepers Association

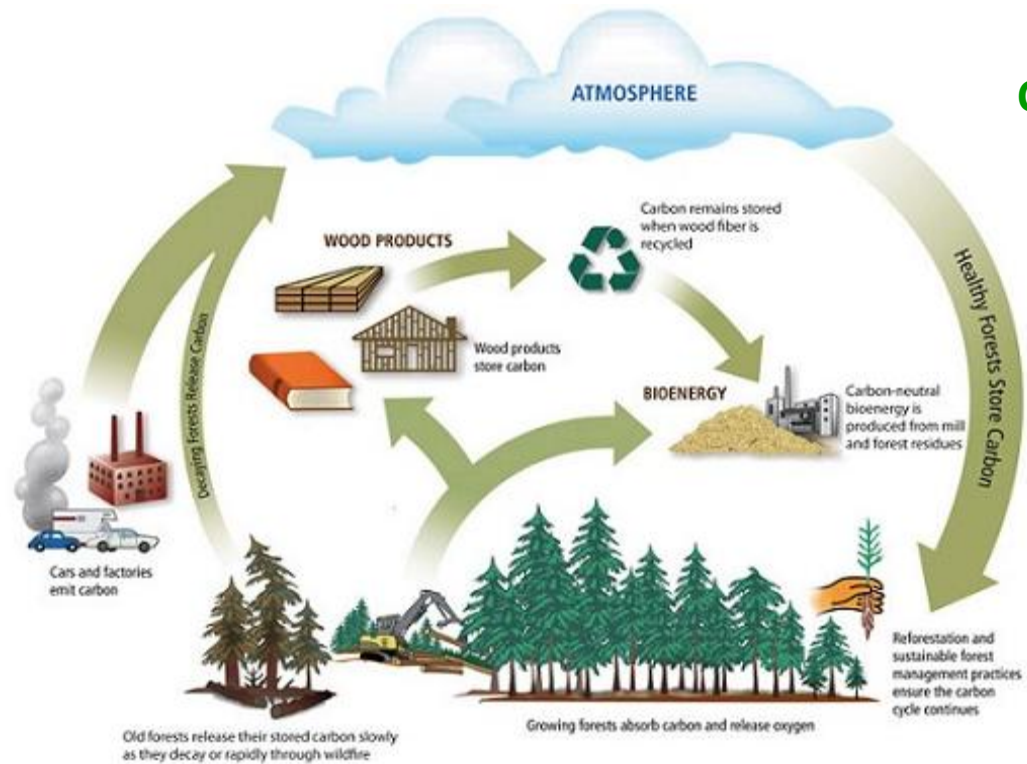
Supported by the Native Irish Honeybee Society

All-Ireland Pollinator Plan, agri-food / tourism initiatives





## Carbon



### Forest carbon cycle → triple carbon effect

1. Sequester CO<sub>2</sub> in growing forests
2. Store carbon in products
3. Substitute fossil fuel & energy intensive materials

## Native woodlands & water...

- intercept sediment & nutrient runoff
- bank stabilisation
- input food ('leaf drop') into the aquatic ecosystem
- provide shading / cooling of water
- restore riparian ecosystem



# Woodland for Water:

Creating new native woodlands to protect and enhance Ireland's waters



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## Strategic application:

- Integrated catchment management
- Drinking-water source protection
- Natural flood retention measure (DAFM on OPW WG)
- Landscape-scale restoration of riparian bio-corridors
- PIP-P driven deployment...

## Pollutant Impact Potential for Phosphorus (PIP-P)...

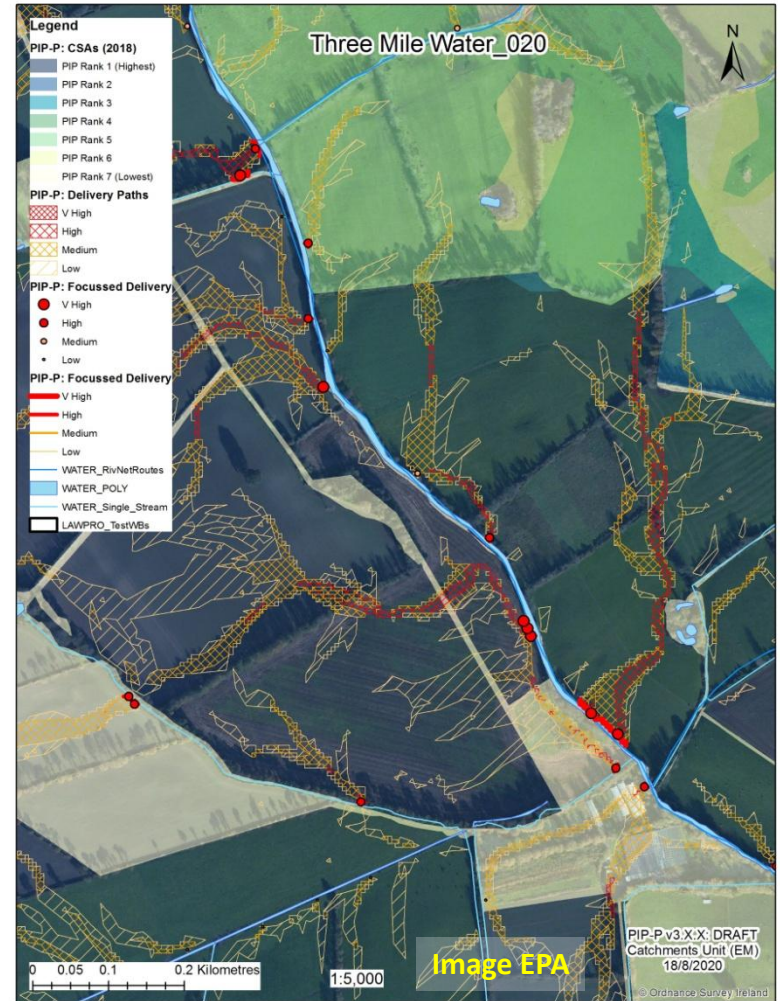
...as derived by EPA\* from hydrogeological susceptibility, agri-loading / leaching and topography

PIP-P (v.3) shows:

- Critical Source Area Map, high PIPs (Rank 1, 2 or 3)
- Focussed Delivery Flow Paths
- Focussed Delivery Flow Points

Use to inform field-level pathway interception measures, **such as new native woodland...**

\* <https://gis.epa.ie/EPAMaps/Water>  
<https://gis.epa.ie/EDENMaps/WFD>



# Wood products



# Landscape





## Agroforestry Scheme (GPC 11 under Affor. Scheme)

Trees planted at wide spacing, enabling tree growing & with agricultural crops or animal grazing on the same piece of land



## Woodland Improvement Scheme incl. Continuous Cover Forestry (CCF)

- Support to forest owners to help meet the cost of thinning broadleaf forests & broadleaf mixtures
- Three thinning interventions for all broadleaf & broadleaf mixed forests, and...
- ... supports the CCF approach to forest management



## Selection



Image: Teagasc

## Shelterwood

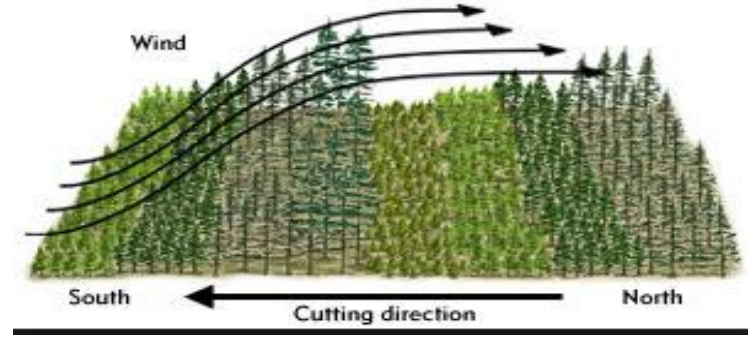


Image: Canadian Forest Service

## Group Selection (*coupes usually <0.25ha*)



## Coppice



# NeighbourWood Scheme

July 2017



## NeighbourWoodland Scheme

‘Close-to-home’ woodlands for local people to visit & use on a daily basis (‘runners, not hiking boots’)

Partnership between local authority & local community

Typically in & around centres of population, villages, towns, city neighbourhoods

Multiple benefits: health & well-being, social engagement, community activism, sense of place, economic spin-offs for locality, and also...

... interpretation regarding local heritage, historical, cultural & natural

- ‘Passive’ engagement *via* information boards, leaflets, nature trails, etc.
- Focus for walks by local experts (wildlife & others)
- Outdoor classroom for local schools

**Engaging people with easily accessible ecosystems**









## Ecosystem services

Well-sited & managed forests are delivering

Needs Foresters & Ecologists working together (alongside other professionals, e.g. Catchment Scientists)

Native woodland 'community' is pointing the way...







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Native woodland 'community' is pointing the way...

This expanded role for forestry has never been more relevant, in light of the climate & biodiversity crises, threats to our water quality & the widening(?) gulf between people & nature...

**...however, regarding the potential for forests to deliver nature-based solutions, still massive scope for growth, so bear us in mind!**



# Thank you!

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