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Welsh Government

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# Woodlands for Wales indicators 2026

## Chapter 1: Welsh woodlands and trees

Mae'r ddogfen yma hefyd ar gael yn Gymraeg.

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# Woodlands for Wales indicators 2026

## Chapter 1: Welsh woodlands and trees

Statistical release number: 47/2026.

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Production of these indicators has been led by Forest Research, on behalf of Welsh Government. Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government.

For further information please contact:

Trees and Soils Branch  
Climate Change and Environmental Sustainability  
Welsh Government  
Cathays Park  
Cardiff  
CF10 3NQ

PolisiCoedwigaeth.ForestryPolicy@gov.wales

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## Introduction

This chapter includes indicators that monitor progress towards the strategy outcomes set out in the Welsh Woodlands and Trees chapter of the Woodlands for Wales (WfW) strategy. The outcomes listed in that chapter set out the foundation from which the other strategic themes are addressed. Some outcomes in the strategy are addressed by more than one indicator. The outcomes, associated indicators, and data sources providing additional context and detail are listed below.

### **Outcome 1: woodland cover in Wales increases**

Indicator 1a: woodland area

Indicator 1b: trees outside of woodland

Additional data and context:

- New planting
- Woodland loss
- National forest sites

### **Outcome 2: more woodlands and trees are managed sustainably**

Indicator 2: area of certified woodland

Additional data and context: National Forest for Wales

### **Outcome 3: woodland ecosystems are healthy and resilient**

Indicator 3a: resilience: woodland ecological condition

Additional data and context:

- Diversity
- Connectivity

Indicator 3b: tree health: area under Statutory Plant Health Notices (SPHN)

Additional data and context:

- Welsh Plant Health Surveillance Network results (WPHSN)
- Reports to the Tree Health Diagnostic and Advisory Service (THDAS)
- Abiotic risks

**Outcome 4: woodlands are better adapted to deliver a full range of benefits**

Indicator 4: value of woodland ecosystem services

Additional data and context: National Forest for Wales

**Outcome 5: The management of woodland and trees is more closely related to other land uses**

Indicator 5: farm woodland under management - under development

**Outcome 6: urban woodlands and trees deliver a full range of benefits**

Indicator 6a: urban tree canopy cover

Indicator 6b: perceived benefits of urban trees

## Trends

Trends have been calculated for the indicators using the criteria set out in table 1.

**Table 1: description of trend analysis for the Woodlands for Wales indicators**

Category	Symbol	Threshold
Improving	↑	>3% positive change since the last WfW indicators
Stable ( <i>i.e.</i> , little or no overall change)	=	≤3% change since the last WfW indicators
Deteriorating	↓	>3% negative change since the last WfW indicators
Not assessed due to insufficient comparable data	<b>N/A</b>	Not applicable

Where appropriate data are available, the most recent data point is compared with the value from the last WfW indicators report (or with data from that time period, if that indicator was not previously reported), smoothed using a 3-year average.

For example, a data point from 2025 would be compared to the 3-year average around 2018 (2017, 2018 and 2019). The purpose of this is to reduce the likely impact of individual annual anomalies.

The chapter 1 indicators and the associated trends since the last indicators report are shown in table 2.

**Table 2: trends for the Woodlands for Wales indicators**

Indicator	Trend since the last WfW indicators report
1a: Woodland area	=
1b: Trees outside of woodland (TOW)	Data provides a baseline.
2: Area of certified Woodland	=
3a: Resilience: woodland ecological condition	Data provides a baseline.
3b: Tree health: new area under Statutory Plant Health Notice	↑
4: Annual value of woodland ecosystem services	↓
5: Farm woodland under management	This indicator is under development.
6a: Urban tree canopy cover	There has not been a data update since the last indicators report.
6b: Perceived benefits of urban trees	↓

## Outcome 1: woodland area in Wales increases

This outcome is assessed by 2 indicators: woodland area and trees outside of woodland. Additional data about woodland planting, woodland loss and National Forest sites are also included for wider context.

### Indicator 1a: Woodland Area

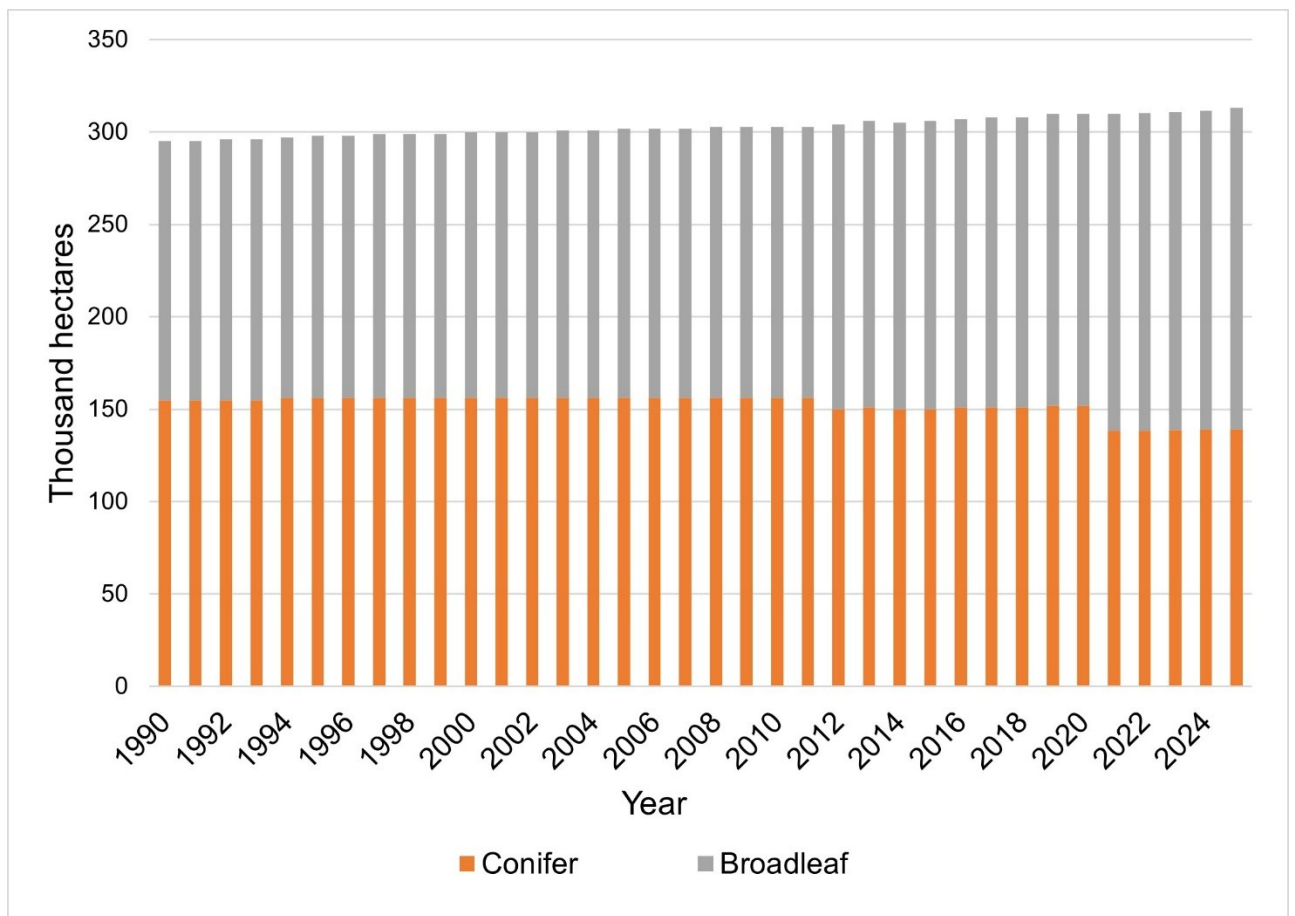
Indicator	Trend since the last WfW indicators report
1a: Woodland area	=

Figures 1 and 2 show the area of woodland in Wales, as defined by the National Forest Inventory (NFI), by woodland type and management. A stand of trees is defined as woodland if it has an area of at least 0.5 hectares (ha), a minimum width of 20 metres (m), and a canopy cover of at least 20%, or the potential to achieve this. This standard definition of woodland ensures that our woodland statistics are directly compatible with outputs from other European forest inventories, so that we can continue to share and report our data internationally.

The total area of woodland in Wales in 2025 was 313,173 ha. This is an increase of approximately 18,000 ha since 1990, and there has been a slight shift towards both broadleaved and privately-owned woodland over the same period. Since the last edition of the Woodlands for Wales indicators, woodland area in Wales has increased, however not by a considerable proportion. Therefore, the short-term trend is little to no overall change.

It should be noted that other measures of woodland area exist that are not restricted to the NFI definition, and these may consequently report different woodland areas.

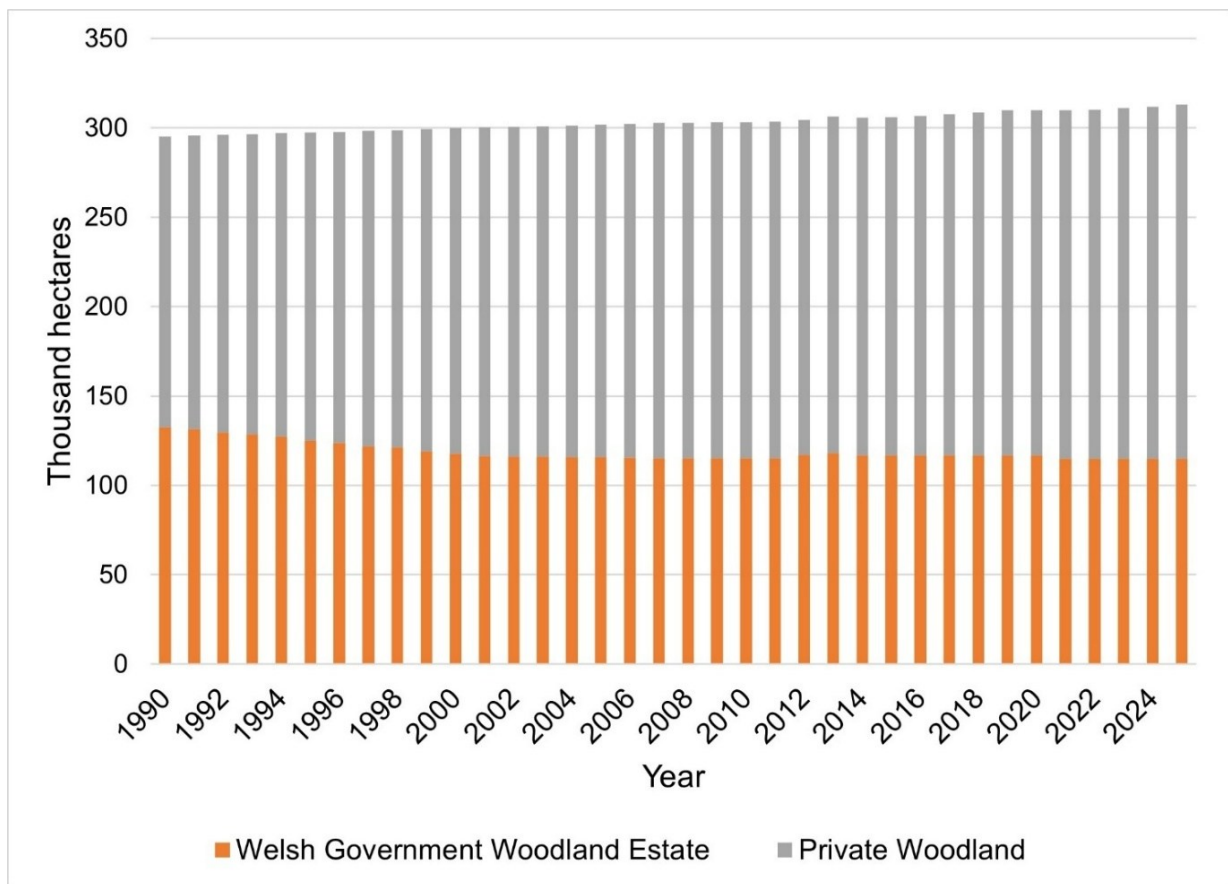
**Figure 1: area of woodland in Wales, by woodland type, 1990 to 2025**



Description of figure 1: Stacked bar chart showing an overall increase in area of woodland, with a shift to more broadleaf woodland than conifer woodland.

Source: [Forest Research - time series](#), 2025.

**Figure 2: area of woodland in Wales, by management, 1990 to 2025 [note 1]**

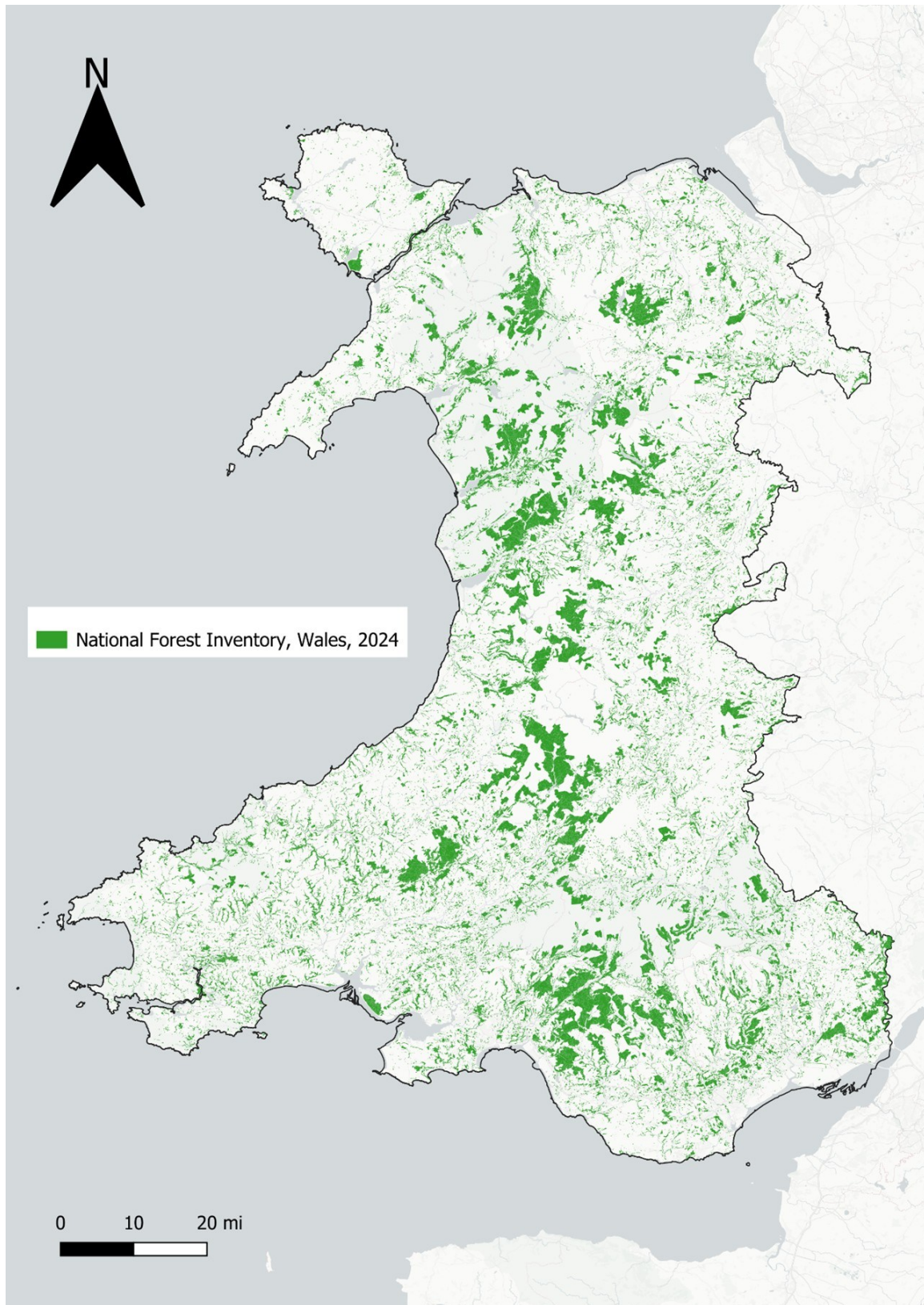


Description of figure 2: Stacked bar chart showing an overall increase in area of woodland since 1990, with a decrease in WGWE woodland, and an increase in private woodland over the entire period. The area of WGWE woodland has remained fairly constant since approximately 2000.

Source: [Forest Research - time series](#), 2025.

[note 1] private woodland includes all woodland outside the Welsh Government Woodland Estate (WGWE). This includes woodland managed by Natural Resources Wales (NRW) outside of the WGWE, other publicly owned woodland (e.g., owned by local authorities) and privately owned woodland.

**Figure 3: distribution of National Forest Inventory woodland across Wales, 2024**



Description of figure 3: map of Wales showing the distribution of National Forest Inventory woodland across the country.

Source: National Forest Inventory, 2024. Contains, or is based on, information supplied by the Forestry Commission. © Crown copyright and database right 2025 Ordnance Survey.

Figure 3 shows the distribution of National Forest Inventory woodland across Wales in 2024. This map was produced using the [Forestry Commission open data](#). Woodland areas, greater than 0.5 hectares, are classified as an interpreted forest type (IFT) from aerial photography and satellite imagery. Non-woodland areas, open areas greater than 0.5 hectares completely surrounded by woodland, are described according to interpreted open area types (IOAs). IFT categories are conifer, broadleaved, mixed mainly conifer, mixed mainly broadleaved, coppice, coppice with standards, shrub, young trees, felled, ground prep, cloud / shadow, uncertain, low density, assumed woodland, felled, and windblow. Figure 3 includes woodland that falls under all IFT and IOA categories. As can be seen from this map, woodland is distributed throughout Wales, however there are some areas with less woodland cover, such as coastal areas.

Table 3 presents woodland area as a percentage of total land area across the UK. In Wales in 2025, this figure was 15.1%. This is higher than the average across the UK, but lower than percentage land cover in Scotland. Woodland area as a percentage of total land cover has increased across all nations of the UK since 1980.

**Table 3: woodland area as a percentage of total land area, by nation, 1980-2025**

Year	Wales	England	Scotland	Northern Ireland	UK
1980	11.6	7.3	11.8	4.9	9.0
1998	14.4	9.5	16.7	6.0	12.0
2025	15.1	10.3	19.4	8.6	13.5

Source: [Forestry statistics: chapter 1, Forest Research, 2025](#).

## **Indicator 1b: trees outside of woodland**

Trend since the last WfW Indicators report: this is a new data source for this edition of the WfW Indicators so no trend can be reported.

The previous indicator only addresses woodland as defined by the NFI. There are many lone trees, small groups of trees, and trees in hedgerows that are not included in these statistics but that still provide many benefits. In 2026, Forest Research produced a spatial dataset of trees outside of woodland (TOW) for Wales. Tree canopy cover located outside of the NFI was derived from the Wales LiDAR Survey conducted between 2020 and 2023. Woodland type classifications are derived using a rule-based spatial algorithm that evaluates:

- the number of individual treetops detected within each canopy polygon;
- polygon area; and
- polygon geometry (e.g., roundness).

These parameters are used to assign each feature to 1 of 4 woodland type classes:

- Lone trees – single trees, shown as small, separate canopy areas with usually one treetop within them.
- Groups of trees – small clusters of trees growing close together within the same canopy patch.
- Small woodlands – larger, continuous tree areas that meet a minimum size or number of trees.
- Overhanging canopy – tree areas that hang over or are next to National Forest Inventory woodland.

Distinct trees and small woodlands separate from NFI woodland are reported on here. Therefore, NFI overhang has not been included. Table 4 shows a summary of the TOW dataset for Wales. The total area of TOW is 147, 617 ha.

**Table 4: area of trees outside of woodland (TOW), Wales, based on Wales LiDAR survey 2020 to 2023 [note 1]**

<b>Woodland Type</b>	<b>Total Area (hectares)</b>
Group of Trees	89,425
Lone Tree	10,136
Small Woodland	48,055
Total area of TOW	147,617

Source: Forest Research, 2026.

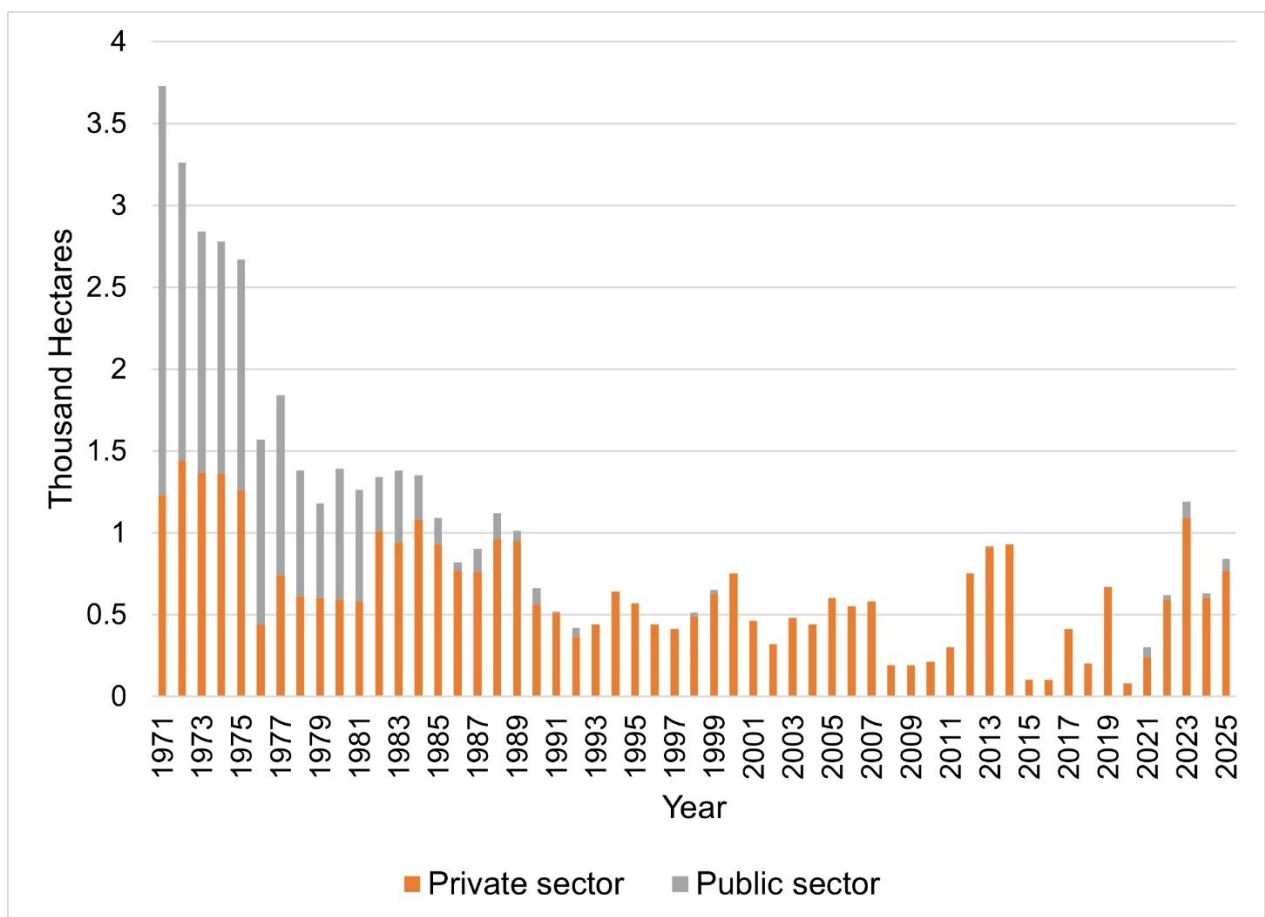
[note 1] Values may not sum to totals due to rounding.

## Additional data and context

### New woodland planting

Figure 4 illustrates new woodland planting in Wales between 1971 and 2025, by management, as [reported by Forest Research](#). In 2025, an estimated 842 ha of new woodland was created. It should be noted that this figure includes only woodland as defined by the National Forest Inventory, and the extent of tree planting in Wales is likely higher than reported.

**Figure 4: new woodland planting in Wales, by management, 1971 to 2025 [note 1]**



Description of figure 4: stacked bar chart showing woodland planting by private and public sector, between 1971 and 2025. Overall, the chart shows a decrease in planting since 1971. This decrease is mainly due to a reduction in public planting, private planting has remained more consistent over the time period.

Source: [Forest Research - time series, 2025](#).

[note 1] Public sector planting includes only planting on the WGWE. Private sector planting includes publicly funded planting on all other woodland. This could be NRW

managed woodland outside the WGWE, other publicly owned woodland (including local authorities) and privately owned woodland.

## **Woodland loss**

It is important that woodland loss is accounted for when assessing the current outcome. Forest Research [publish figures for woodland loss](#) annually, and these are derived from NFI maps. Estimates of woodland loss are primarily based on annual satellite imagery analysis to identify canopy change, which is then validated with aerial photography and other relevant data sources. The full [methodology](#) explains additional data sources used to validate the woodland loss.

Areas identified are classified under 3 categories:

- woodland loss: areas where definitive evidence for the permanent removal of woodland cover has been established,
- ground under development: areas where there has been significant earth movement of the type associated with development, and
- newly restored priority habitats: area where there has been a significant change in the habitat type through the complete establishment of non-tree vegetation.

Table 5 lists the extent of woodland loss in Wales between 2014 and 2024. The annual rate of woodland loss has fallen over this time period. Estimates do not reflect any planting that may have occurred to offset woodland loss in particular areas (*i.e.*, 'compensatory planting').

**Table 5: area (hectares) of woodland loss, Wales, 2014 to 2024**

Year	Area of woodland loss (ha)	Area of ground under development (ha)	Area of newly restored priority habitats (ha)	Total area of woodland loss (ha)
2014-15	38	12	2	53
2015-16	47	22	9	78
2016-17	24	12	3	39
2017-18	35	10	1	46
2018-19	28	15	1	45
2019-20	11	5	[low]	16
2020-21	18	12	0	30
2021-22	4	3	0	7
2022-23	3	2	[low]	4
2023-24	3	4	2	8

Source: [Forestry statistics: chapter 1, Forest Research, 2025](#).

Note: Values may not sum to totals due to rounding.

### **National Forest Sites**

The [National Forest for Wales](#) (NFfW) has been created since the publication of the last Woodland for Wales Indicators in 2018. The National Forest is a venture led by Welsh Government with the objective of establishing a connected nationwide network of woodlands and forests throughout Wales, all under high quality management. The outcomes of the National Forest are:

- Good quality, well designed and managed resilient woodlands.
- Woodlands accessible to people.
- Community involvement in woodlands.
- Connected woodlands.

- Dynamic, multi-purpose woodlands and trees.
- Woodlands that demonstrate learning, research and innovation.

To gain National Forest status, sites must demonstrate how they meet these outcomes and must also have an approved management plan in place. The National Forest scheme recognises exemplary woodlands that are both contributing to the wider environment of Wales and are helping Wales to reach the wider woodland strategy outcomes.

As of February 2026, the National Forest for Wales consists of 82 woodlands, covering 4,521 hectares outside of the Welsh Government Woodland Estate (WGWE), with a total area of 114,952 hectares including WGWE woodlands.

## Outcome 2: more woodlands and trees are managed sustainably

### Indicator 2: area of certified woodland

Indicator	Trend since the last WfW indicators report
2: Area of certified woodland	=

Forestry certification schemes exist to promote sustainability delivered by good forest practice. They offer product labels to certify that wood or wood products come from well-managed forests. Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) certifications are independently audited against the UK Woodland Assurance Standard (UKWAS). Woodland certification is often used as an indicator of sustainable forest management; however, it should be noted that woodland that is not certified may also be under sustainable management.

**Table 6** shows the area of certified woodland in Wales, by management. In 2025 the area of certified woodland in Wales was approximately 149,000 hectares. This represents approximately 48% of woodland in Wales. Since the last edition of the WfW indicators the area of certified woodland has increased, but not significantly. Therefore, in the short-term, the total area of certified woodland is stable. There has been a significant (17%) increase in the area of private sector woodland that is certified since the last edition of the indicators.

**Table 6: area of certified woodland by management (thousand hectares), Wales, 2003 to 2025**

<b>Year</b>	<b>Private sector</b>	<b>Public sector</b>	<b>Wales total</b>
2003-04	11	116	127
2004-05	15	116	131
2005-06	16	116	131
2006-07	17	115	133
2007-08	15	115	130
2008-09	19	115	134
2009-10	18	115	133
2010-11	19	115	134
2011-12	21	117	138
2012-13	22	118	140
2013-14	24	117	141
2014-15	24	117	141
2015-16	24	117	141
2016-17	28	117	145
2017-18	28	117	145
2018-19	29	117	146
2019-20	29	117	146
2020-21	30	115	145
2021-22	30	115	145
2022-23	33	115	148
2023-24	34	115	149
2024-25	34	115	149

Source: [Forest Research - time series, 2025.](#)

## **Additional data and context**

### **National Forest for Wales**

As previously mentioned, the National Forest for Wales now includes over 110,000 hectares of woodlands in Wales. To become part of the National Forest, woodlands require appropriate and up to date 10-year management plans. To gain National Forest status sites must provide evidence of woodland management plans that are guided by the [UK forestry standard](#) (UKFS) and make reference to [Sustainable management of natural resources](#) (SMNR).

## **Outcome 3: woodland ecosystems are healthy and resilient**

This outcome is assessed by 2 indicators: woodland resilience and tree health. Both indicators have additional data sources associated. Woodland resilience is assessed using the NFI woodland ecological condition indicators, with additional data covering connectivity and diversity. Tree health is assessed using Statutory Plant Health data, with additional data from the Welsh Plant Health Surveillance Network, and Tree Health Diagnostic Advisory Services.

### **Indicator 3a: woodland resilience: woodland ecological condition**

Trend since the last WfW indicators report: Baseline data, no trend can be described. An update to the NFI woodland ecological condition indicators is expected in 2026.

The [State of Natural Resources Report](#) (SoNaRR), published by NRW every 5 years, defines a resilient ecosystem as an environment that can respond to pressures by resisting, recovering or adapting to change; and is able to continue to provide natural resources and benefits to people. It is difficult to give one definitive indicator for ecosystem resilience, as resilience is made up of many different components. SoNaRR adopts the DECCA (Diversity, Extent, Condition, Connectivity, opportunities for Action) framework to assess resilience. This framework nests within the WfW indicators. Extent is addressed in the indicators under outcome 1. Condition is addressed here using the National Forest Inventory (NFI) woodland ecological condition (WEC) indicators. Diversity and connectivity are included here as additional data. Both diversity and connectivity are important aspects of woodland resilience, however data challenges mean they are not utilised as headline indicators. There are further data sources and indicators of relevance for environmental condition in Chapter 5: Environmental Quality of the WfW indicators.

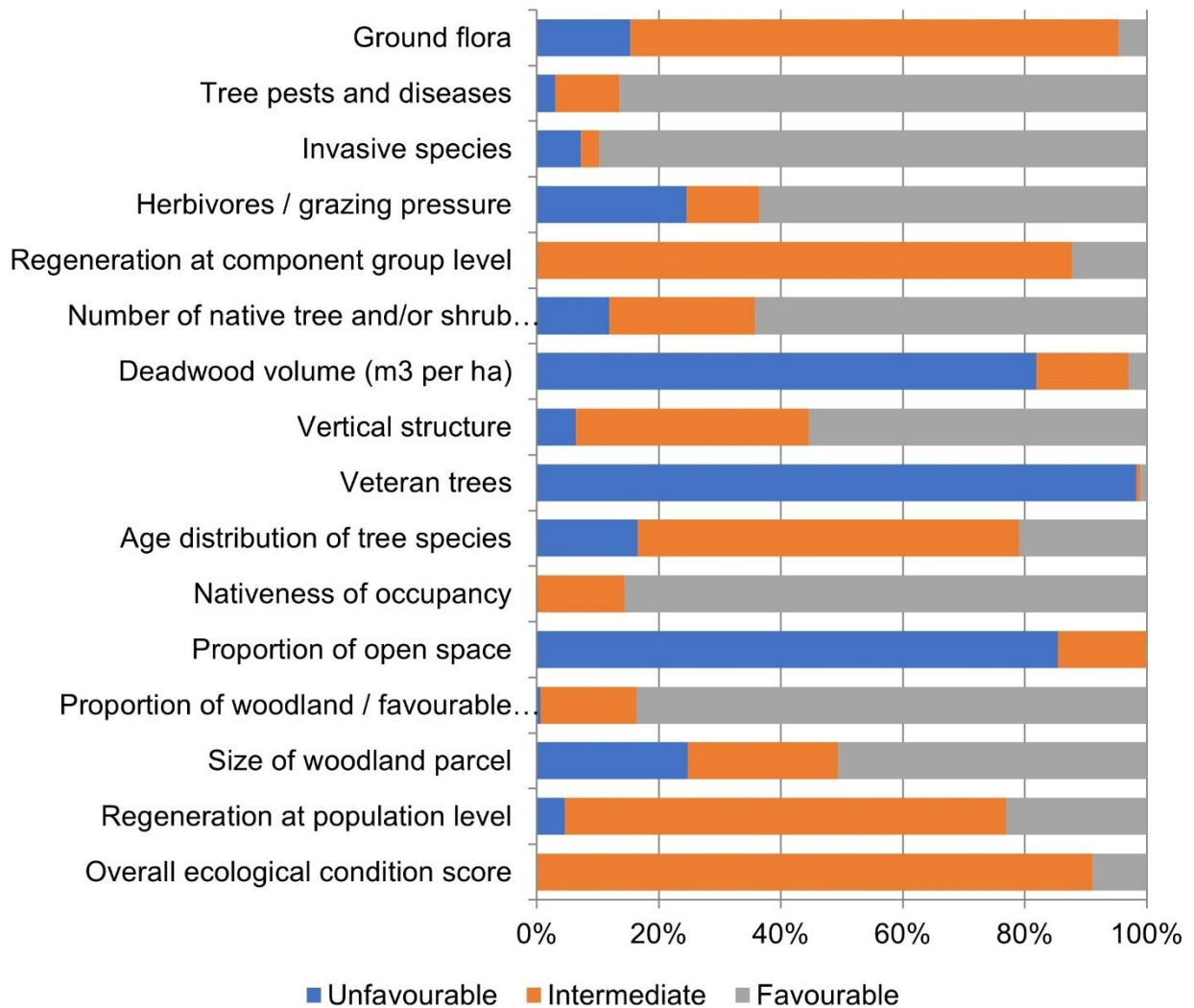
The NFI provides information concerning the size, distribution and composition of forests and woodlands including woodland ecological condition. Woodlands are assessed against 15 WEC indicators and classified as favourable, intermediate or unfavourable in terms of condition. Classification is based on comparison to a single benchmark, a 'semi natural woodland in favourable condition'. The [NFI Woodland Ecological Condition reports provide further details and methodology](#). The data

enabling the calculation of the WEC indicators were measured as part of the NFI survey cycle 2010 to 2015, with the reports published in 2020. An updated assessment is expected to be released in 2026. The data presented here will be utilised as a baseline.

Figures 5, 6 and 7 show the results of the NFI analysis of Welsh woodlands against each of the 15 WEC indicators, by woodland type (native, near native and fragments, and non-native). In this context native woodland is defined as woodland stands with 50% or more of native tree species occupancy in the upper canopy, that either form a discrete woodland parcel with a minimum area of 0.5 ha or form a woodland stand with a minimum area of 0.1 ha that is part of a woodland that is 0.5 ha or larger. Non-native woodland is defined as woodland stands with less than 40% native species occupancy sitting within a woodland of any size. Near native and fragments are all woodland that do not lie in the other 2 categories. This could have native canopy cover between 40 and 49% or have more than 50% native canopy cover but fall under the size thresholds set out above. Defining this category allows all woodland area to be assessed and reported on for its ecological condition status.

Table 7 summarises the percentages of each woodland type that are in favourable, unfavourable and intermediate condition for 'overall ecological condition score'. Native woodland has the highest percentage area that is in favourable condition, compared to non-native and near native and fragments. Overall, the majority of woodlands of all types are in intermediate condition.

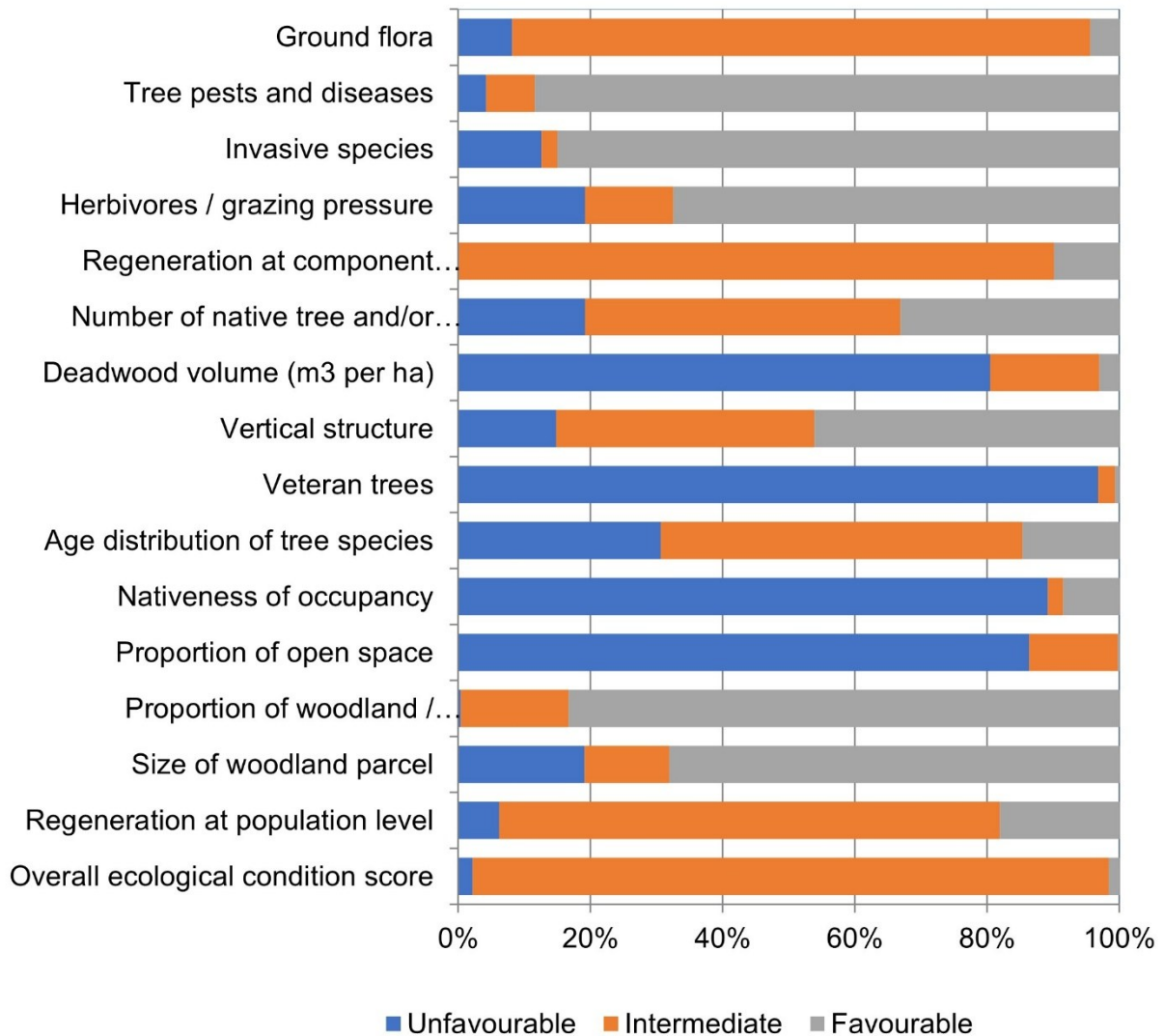
**Figure 5: the percentages of each woodland ecological condition class, for each WEC indicator type in native woodland stands in Wales**



Description of figure 5: horizontal bar chart showing percentage of woodland that is unfavourable, intermediate or favourable for each indicator.

Source: [NFI provisional estimates of woodland ecological condition scores for Wales, 2020](#).

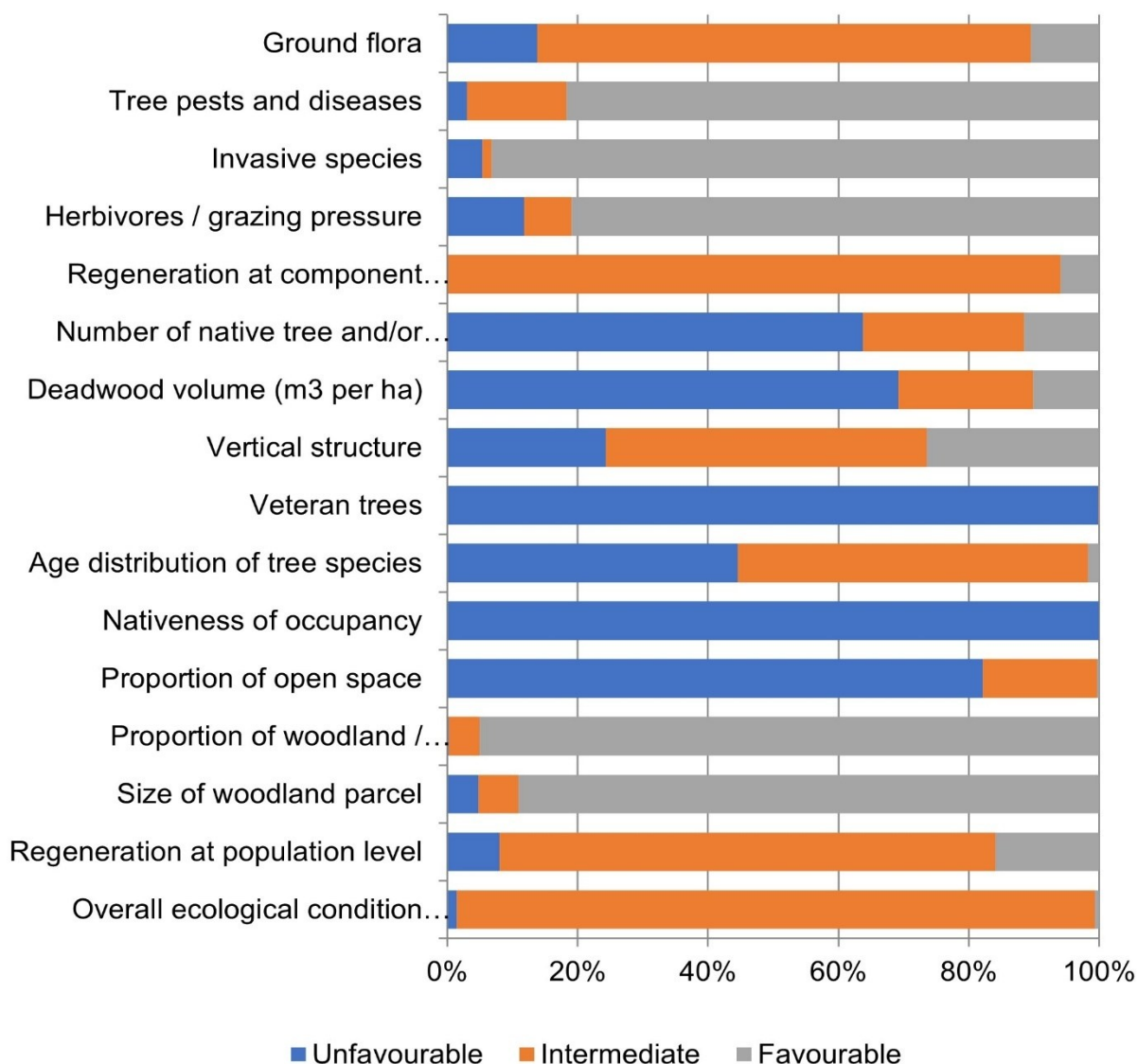
**Figure 6: the percentages of each woodland ecological condition class, for each WEC indicator type in near native and fragments in Wales**



Description of figure 6: horizontal bar chart showing percentage of woodland that is unfavourable, intermediate or favourable for each indicator.

Source: [NFI provisional estimates of woodland ecological condition scores for Wales, 2020](#).

**Figure 7: the percentages of each woodland ecological condition class, for each WEC indicator type in non-native stands in Wales**



Description of figure 7: horizontal bar chart showing percentage of woodland that is unfavourable, intermediate or favourable for each indicator.

Source: [NFI provisional estimates of woodland ecological condition scores for Wales, 2020](#).

Description of figure 7: horizontal bar chart showing percentage of woodland that is unfavourable, intermediate or favourable for each indicator.

**Table 7: area and percentage of woodland in unfavourable, intermediate and favourable condition for overall ecological condition score, by woodland type, Wales**

Woodland type	Unfavourable area (000 ha)	Unfavourable percentage area	Intermediate area (000 ha)	Intermediate percentage area	Favourable area (000 ha)	Favourable percentage area
Native	0.2	0.1%	135.1	91.0%	13.2	8.9%
Near native and fragments	0.1	1.4%	6.7	97.1%	0.1	1.4%
Non-native	2.3	1.5%	153.4	97.9%	1.0	0.6%

Source: [NFI provisional estimates of woodland ecological condition scores for Wales, 2020](#).

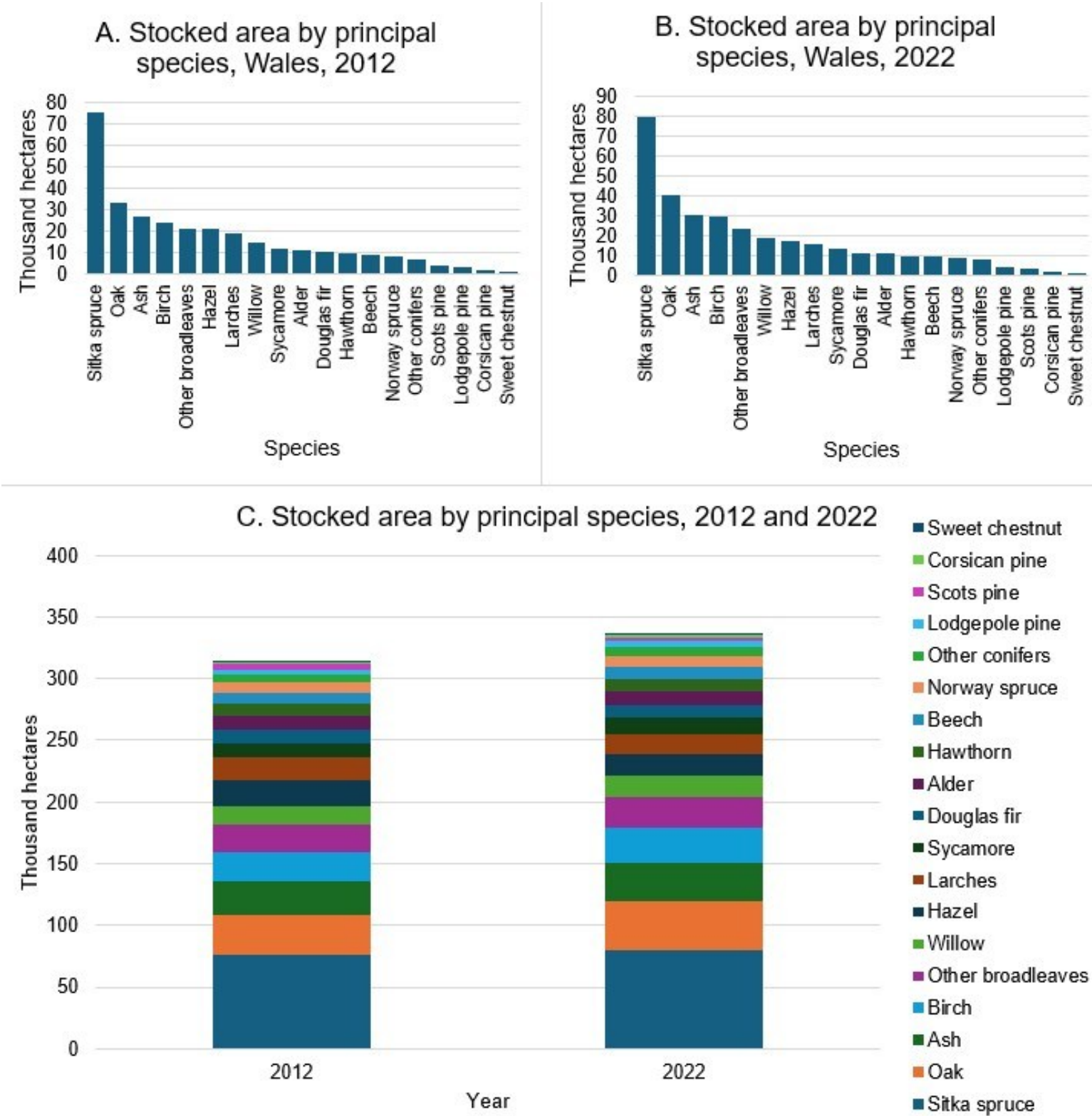
## **Additional data and context**

### **Diversity**

With changing climates, the importance of diverse woodlands in terms of species and genetic diversity has become apparent. Species diversity of stocked woodland has been assessed by river catchment area in Wales by the National Forest Inventory in 2012 and 2022. The total stocked areas by principal species in both 2012 and 2022 are shown in figure 8, panels A and B. A comparison of species make up is shown in figure 8, panel C. [The uncertainty of the results is explained in the results section of the Forest Research report.](#)

The percentage of stocked area made up of the 4 most abundant species (Sitka spruce, oak, ash, birch) fell from 2012 to 2022. The species with the single largest stocked area dominance in Sitka spruce, in both 2012 and 2022.

Figure 8: stocked area by principal species, Wales, 2012 vs. 2022



Description of figure 8: panel A shows a bar chart with each bar representing the stocked area of each tree species in 2012. Sitka spruce has the largest bar. Panel B shows a similar bar chart with each bar representing the stocked area of each tree species in 2022. Sitka spruce still has the largest bar. Panel C shows 2 stacked bars, split into area dominated by each species. It shows that there is a larger area overall in 2022 with a similar species split.

Source: [NFI estimates for woodland in catchment areas in Wales](#)

With threat from pests and diseases likely to increase in coming years with warming climate and increased global trade, the importance of genetic diversity to withstand potential threats is also of increased importance. To conserve the genetic diversity of the forest genetic resource (FGR) the European Forest Genetic Resources Programme (EUFORGEN) and EUFGIS information system coordinate a pan-European network of Genetic Conservation Units (GCUs). Forest Research is responsible for designating GCUs in Britain. There are currently 3 designated GCUs in Wales, across 2 sites. The site and species of these GCUs is shown in Table 8. This represents a baseline value for the number of GCUs in Wales. Work is ongoing to increase the number of GCUs in Wales.

**Table 8: GCUs in Wales, 2025**

Site Name	Population Target Species
Coed Cymerau Isaf	Betula pendula (silver birch)
Coed Cymerau Isaf	Quercus petraea (sessile oak)
Coedydd Aber NNR	Malus sylvestris (European crab apple)

Source: Forest Research, 2025.

## Connectivity

Woodland connectivity is thought to improve the movement and dispersal of species across the landscape and improve overall condition for woodland plants and mobile taxa. An increase in woodland connectivity is therefore a positive outcome. As part of the [ERAMMP National Trends and Glastir Evaluation](#), broadleaf mixed and yew woodland was assessed for connectivity. There was found to be no significant short-term change in connectivity, both including and excluding linear features.

As part of the [woodland natural capital accounts](#), connectivity is explored through functional connectivity of woodland bird species. There is evidence that functional connectivity has improved in recent years. These data are not included here as these are held at the UK level, and not for Wales specifically. Overall, there is currently no clear indicator for woodland connectivity in Wales, although individual assessments have been conducted.

With production of the TOW map for Wales, it should be possible to map woodland connectivity more precisely.

### Indicator 3b: tree health: Statutory Plant Health Notices

Indicator	Trend since the last WfW indicators report [note 1]
3b: New area under Statutory Plant Health Notice	↑

[note 1] this trend may not be indicative of an improvement in tree health or a reduction in the presence of *Phytophthora ramorum*, but may be because action taken since 2010 means there is now considerably less larch available for infection. In addition, the criteria under which SPHNs are issued for *P. ramorum* infection have recently changed.

In recent years pests and diseases have had a large impact on trees and woodlands in Wales. Monitoring the spread of existing pests and diseases and considering potential threats to Welsh woodlands is an important aspect of ensuring healthy, resilient woodlands. Previously discussed in the last edition of the Woodlands for Wales indicators were *Phytophthora ramorum*, ash dieback and oak processionary moth, due to the actual or potential impact of these key pests. The headline indicator here utilises data relating to Statutory Plant Health Notices (SPHN). To build a more complete picture of tree pests and diseases in Wales, additional data are utilised here from the Welsh Plant Health Surveillance Network (WPHSN), and the FR Tree Health Diagnostic Advisory Services (THDAS).

To control the spread of certain tree pests and diseases, Statutory Plant Health Notices (SPHNs) may be issued. These are notices that require the destruction (usually felling) of infected trees. In Wales, SPHNs are issued to control the spread of *Phytophthora ramorum* in larch trees. The area under SPHN in Wales, by annual SPHN issued and cumulative area under SPHN is shown in table 9. As of 2025, a total of 9,109 ha of larch has been felled under SPHNs. Since the last edition of the indicators there has been a significant decrease in the new area under SPHN.

**Table 9: area under Statutory Plant Health Notice, Wales, 2010 to 2025**

<b>Year</b>	<b>New area under SPHN (ha)</b>	<b>Cumulative area under SPHN (ha)</b>
2010	836	836
2011	635	1,471
2012	1,346	2,817
2013	4,689	7,506
2014	568	8,075
2015	405	8,480
2016	194	8,674
2017	1,179	9,853
2018	1,619	11,472
2019	486	11,958
2020	1,426	13,384
2021	1,201	14,586
2022	750	15,335
2023	179	15,515
2024	81	15,596
2025	4	15,600

Source: Natural Resources Wales. Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights reserved.

## Additional data and context

### Results from the Welsh Plant Health Surveillance Network

The Welsh Plant Health Surveillance Network (WPHSN) is a Welsh Government funded project to monitor native and invasive pests and pathogens that can pose a threat to the health of plants and trees across Wales. This is a ground-breaking initiative that aims to act as an early detection and monitoring programme for tree pests and diseases not yet established in Wales that may become a problem in the future, as well as monitoring selected pests and diseases that are already present. Presence, absence and abundance of key pests and pathogens are recorded through a network of insect and spore traps deployed throughout Wales. More information about the WPHSN, and a full list of target species, can be found on the [Welsh Plant Health Surveillance Network webpage](#), along with links to the WPHSN annual reports. Table 10 shows the presence and absence of *Ips typographus*, and Table 11 shows the total number of *Ips cembrae* detected by the WPHSN between 2022 and 2025.

**Table 10: results for *Ips typographus* monitoring by the WPHSN, 2022 to 2025**

Year	Number of traps	Presence/ absence	Total number of insects found
2022	9	Absent	
2023	16	Absent	
2024	23	Present (intercepted) [note 1]	3 individuals
2025	35	Absent	

Source: [Welsh Plant Health Surveillance Network, Forest Research](#), 2026.

[note 1] the 2024 interceptions were wind-mediated introductions. There is no evidence of any established populations of *Ips typographus* in Wales.

**Table 11: results for *Ips cembrae* monitoring by the WPHSN, 2022 to 2025**

Year	Number of traps	Number of traps with <i>Ips cembrae</i> detected	% of traps with <i>Ips cembrae</i> present	Total number of <i>Ips cembrae</i> detected
2022	10	9	90%	908
2023	17	14	82%	550

Year	Number of traps	Number of traps with <i>Ips cembrae</i> detected	% of traps with <i>Ips cembrae</i> present	Total number of <i>Ips cembrae</i> detected
2024	5	5	100%	231
2025	13	11	85%	358

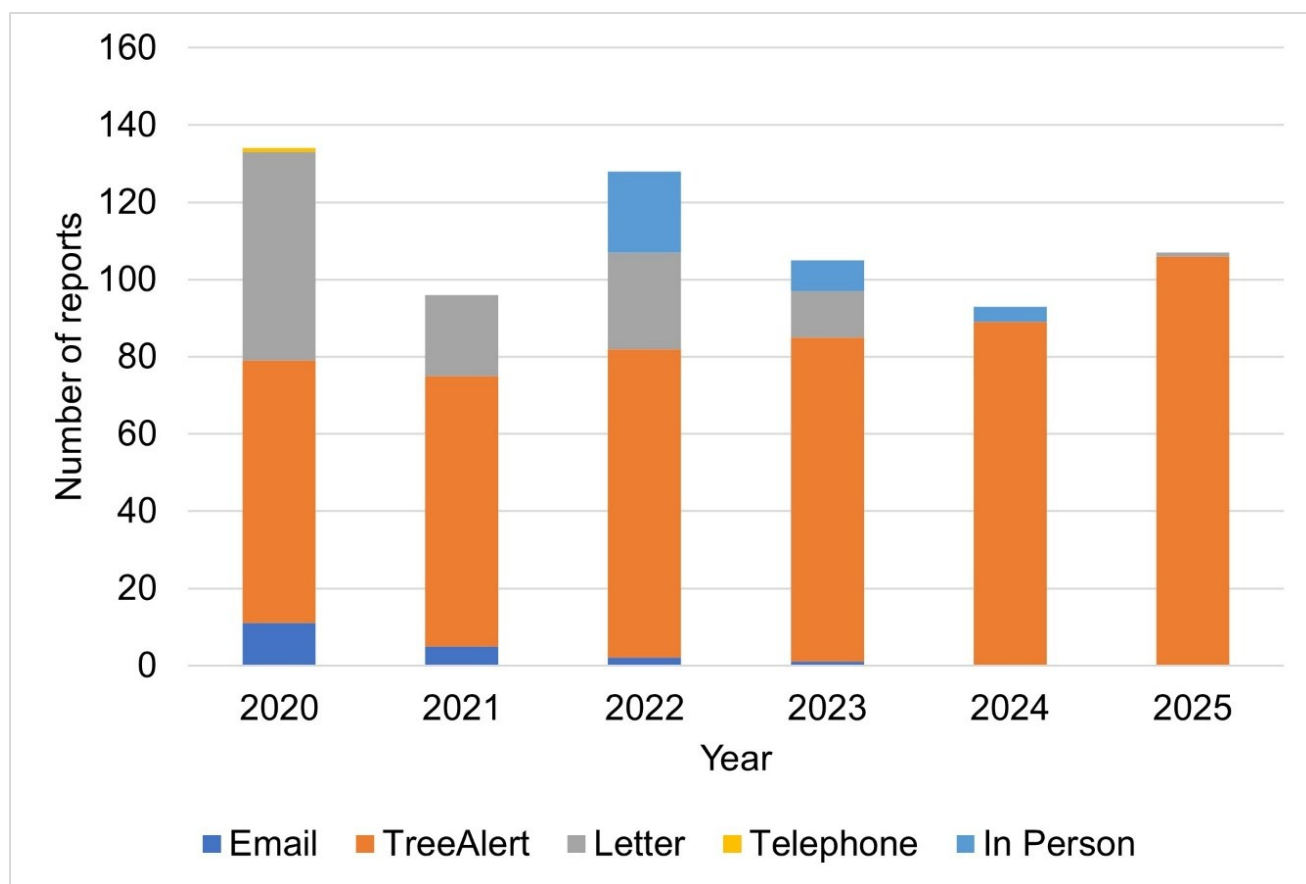
Source: [Welsh Plant Health Surveillance Network, Forest Research](#), 2026.

### Tree Health Diagnostic and Advisory Service

The Tree Health Diagnostic and Advisory Service (THDAS) is part of Forest Research and provides advice and where possible diagnosis and identification of tree pests and pathogens throughout the GB. [TreeAlert](#) is the online reporting tool for tree pests and diseases, managed by Forest Research with funding from Welsh Government, as well as Defra, Forestry Commission, and Scottish Forestry. TreeAlert allows reporting of suspect findings of tree pests and diseases which are then triaged and assessed by THDAS.

Overall reports to THDAS across Wales for the period 2020 to 2025 are shown in figure 9. An increasing proportion of reports to THDAS are made via TreeAlert.

**Figure 9: reports to THDAS by reporting method, Wales, 2020 to 2025**



Description of figure 9: Bar chart showing that the largest number of reports in each year to THDAS are from TreeAlert.

Source: Tree Health Diagnostic Advisory Service, Forest Research, 2026.

### Abiotic risks

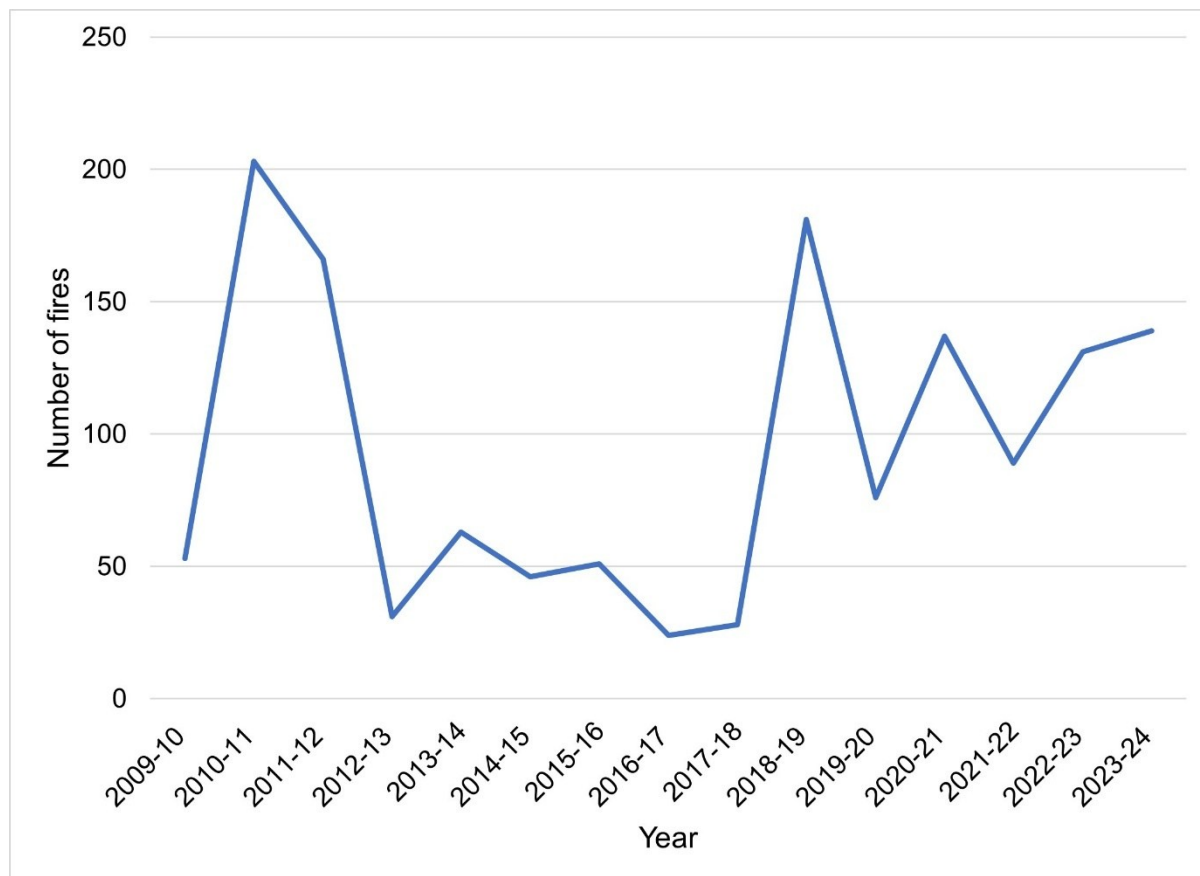
To ensure woodlands are healthy and resilient, abiotic risk factors must also be considered. A major source of woodland loss is storm damage. Projections point to a future increase in the frequency and intensity of extreme wind speeds and the number of storms. Wind damage can lead to significant timber loss and severely limit the longevity of carbon stocks. In late 2024, Wales was hit with storm Darragh that resulted in an estimated 900 hectares of windblow on the Welsh Government Woodland Estate (WGWE)<sup>1</sup>.

Another major threat to woodland ecosystems is wildfire. Figure 10 shows the annual incidences of fires in woodland / forests in Wales from 2009 to 2024. This is the total number of fires annually for both categories ‘Woodland/forest – conifers/softwood’ and

<sup>1</sup> [Carmarthenshire Forests - Storm Darragh Recovery - Natural Resources Wales Citizen Space - Citizen Space](#)

‘Woodland/forest – broadleaf/hardwood’, including both secondary and primary fires (this distinction was only defined in 2021-22). There is no clear trend in the number of woodland and forest fires through time. For future reporting, it would be more informative to understand the area and extent of damage to woodland from fires, rather than just the number of incidences.

**Figure 10: annual incidence of woodland/ forest fires, Wales, 2009 to 2024**



Description of figure 10: Line graph showing the number of incidences of woodland/forest fires between 2009 and 2024. No clear trend is displayed.

Source: [Primary and secondary grassland, woodland and crop fires by month and financial year | StatsWales](#)

## Outcome 4: woodlands are better adapted to deliver a full range of benefits

### Indicator 4: woodland ecosystem services

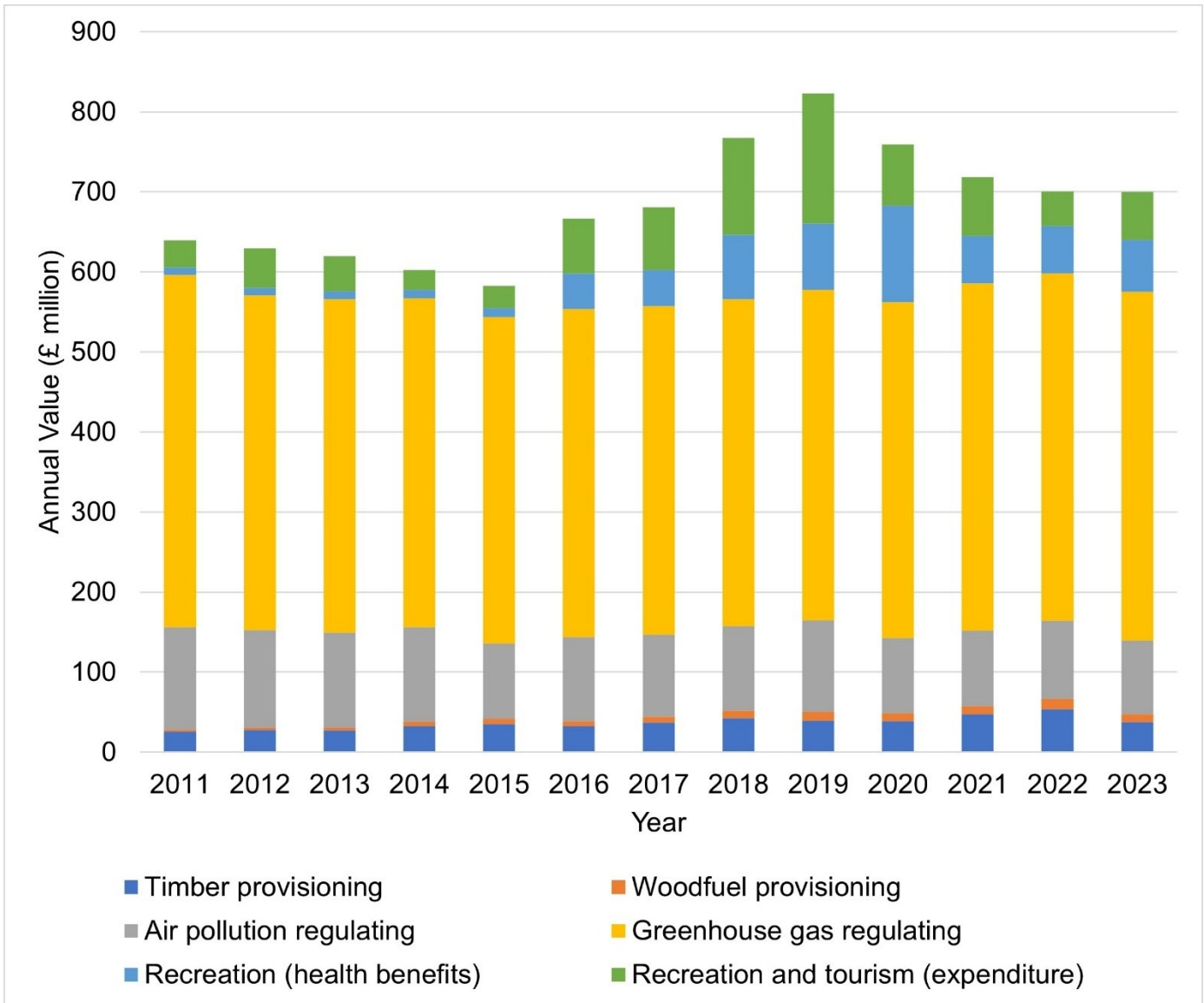
Indicator	Trend since the last WfW indicators report
4: Annual value of woodland ecosystem services	↓

Woodlands and trees deliver a wide range of benefits including provisioning services from the use of timber as a resource (covered further in chapter 4 of the indicators report), regulatory services including greenhouse gas and air pollution regulation (covered further in chapters 2 and 5 of the indicators report), and cultural services such as health and recreation benefits (covered in chapter 3 of the indicators report).

Figure 11 shows a summary of the estimated annual value of ecosystem services provided by woodlands in Wales between 2011 and 2023. These were produced by the Office for National Statistics (ONS) for the [Woodland natural capital accounts](#) (NCA). The last woodland NCA was published in 2026, however the most up-to-date estimations for many of the ecosystem services included here are 2023.

Since the last edition of the indicators the total annual value of the ecosystem services provided by woodlands has decreased.

**Figure 11: annual value (£ millions, 2024 prices) of ecosystem services provided by woodlands in Wales, 2011 to 2023**



Description of figure 11: stacked bar chart where each bar represents annual value in £ million, split into the different ecosystem services provided by woodlands in Wales. The overall trend in annual value is that it was steady between 2011 and 2016, rose between 2016 and 2019 before falling again between 2019 and 2022. 2022 and 2023 values are steady, remaining higher than 2016 values. Greenhouse gas regulation represents the largest proportion of annual value of ecosystem services.

Source: [Woodland natural capital accounts, UK: 2026 - Office for National Statistics](#)

## **Additional data and context**

### **National Forest for Wales**

To ensure more woodlands and trees are delivering a full range of benefits, the National Forest for Wales requires sites to provide evidence of how they meet the 6 high-level National Forest outcomes. As previously stated, these are:

- Good quality, well designed and managed resilient woodlands.
- Woodlands accessible to people.
- Community involvement in woodlands.
- Connected woodlands.
- Dynamic, multi-purpose woodlands and trees.
- Woodlands that demonstrate learning, research and innovation.

Over 90% of National Forest for Wales sites are currently meeting all 6 of these outcomes. This highlights the range of benefits woodlands are currently providing within Wales.

## **Outcome 5: the management of woodland and trees is more closely related to other land uses**

### **Indicator 5: management of farm woodland – under development**

A significant proportion of Wales' woodlands are on agricultural land, and the Woodland for Wales strategy sets out the aspiration for farm woodlands and trees and hedges on farms to be valued and to contribute to the sustainable land management of agricultural land.

While there is considerable recent activity to enhance both woodland management and woodland creation on farms, there is not currently a consistent source of data on the extent to which farm woodlands are managed. The methodology for collating area of farm woodland, published by Forest Research, is under review so not included in this edition of the indicators. With the launch of the Sustainable Farming Scheme, we will consider how new data can be used to indicate changes in the extent to which farm woodlands are managed over time.

## **Outcome 6: urban woodlands and trees deliver a full range of benefits**

This outcome is assessed by 2 indicators: Urban Tree Canopy Cover and Perceived Benefits of Urban Trees.

### **Indicator 6a: urban tree canopy cover**

Trend since the last WfW indicators report: There has not been an update to this data since the last edition of the indicators. It is expected that remote sensing data, such as was utilised to produce the TOW map for Wales, can be used to determine urban canopy cover in the future.

Urban tree canopy cover is a land-cover class and a 2-dimensional metric indicating the area of leaves, branches, and stems of trees viewed from above across a given area, regardless of what other land-cover classes may lie underneath. Tree canopy cover is a useful indicator of extent of urban trees and woodlands, as it is mainly through their canopies that urban trees deliver their environmental and social benefits.

Wales is the first country in the world to undertake a complete canopy cover study of all its urban areas, in Natural Resources Wales (NRW) [Tree cover in Wales' towns and cities](#). Using aerial photography from 2006, 2009 and 2013 leafy crown spread of trees in urban areas was identified and mapped. A further data update was produced in 2018/19. Comparison of results between 2006 and 2009 indicated an urban canopy cover gain of 14.1%. However, this is not comparing like for like as the resolution of aerial photography is significantly different between the two study periods. In 2006, only trees with crown diameter greater than 3m could be detected, whereas from the 2009 aerial imagery trees with crown diameter of greater than 2m could be detected. It has therefore been decided that, for these indicators, only values from 2009 onwards will be utilised to ensure comparisons between study periods are fair. Table 12 shows the urban tree canopy cover in Wales from the 3 NRW surveys. There was a fall in urban tree canopy cover between 2009 and 2013, and canopy cover remained stable between 2013 and 2018 (0.07% increase, or 61 ha).

The area of urban trees reported here will likely be captured under the trees outside of woodland area reported earlier in this document, however only urban areas are considered here. Moreover, differences in methodology may mean there is not a direct overlap in these

datasets. In future, urban canopy cover and farm canopy cover may be derived from the TOW map for Wales.

**Table 12: urban tree canopy cover in Wales, 2009 to 2018**

<b>Year</b>	<b>2009</b>	<b>2013</b>	<b>2018</b>
Mean urban canopy cover	17.00%	16.34%	16.41%
Area of trees (ha)	14,636	14,171	14,231

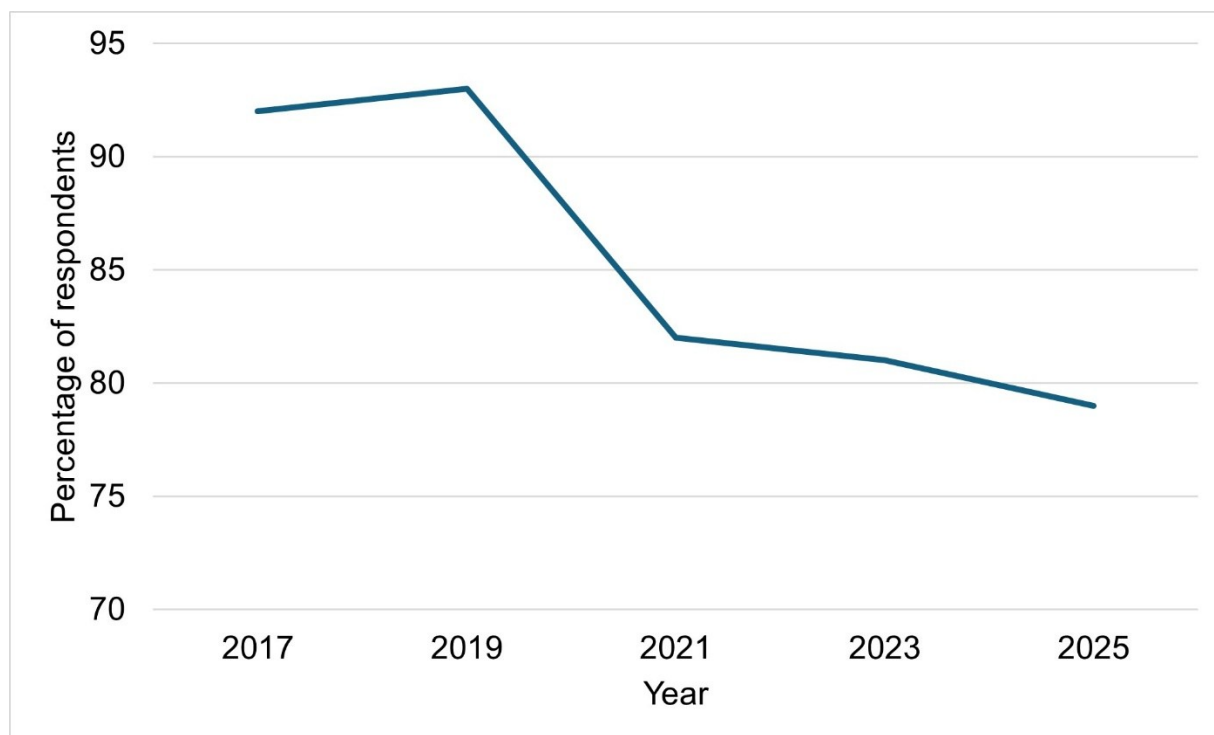
Source: Natural Resources Wales, [Tree cover in Wales' towns and cities](#).

## Indicator 6b: perceived benefits of urban trees

Indicator	Trend since the last WfW indicators report
6b: Perceived benefits of urban trees	↓

One aspect of this outcome is that urban trees deliver a full range of benefits. The [Public Opinion of Forestry survey](#), conducted biennially by Forest Research, addresses the perceived benefits of urban trees. Figure 12 shows the percentage of respondents that identified at least one benefit of urban trees. This has fallen between 2017 and 2025, and therefore since the last WfW indicators report the trend is declining. However, this is not an indication of actual benefits of urban trees, but instead the public perception of the benefits from urban trees. Further work is needed to understand what may be driving this decline in perceived benefits. Further results from the Public Opinion of Forestry survey, relating to wider woodlands, are included in Chapter 3: Woodlands for People.

**Figure 12: percentage of respondents who identified benefits of street trees for the local urban area, Wales, 2017 to 2025**



Description of figure 12: a line chart showing a general decrease in percentage of respondents reporting a benefit of street trees.

Source: [Public Opinion of Forestry survey](#), Forest Research, 2025.