

South West Area Statement

Historic and natural environment

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Crynodeb

Yng Nghymru rydym yn etifeddu palimpsest cyfoethog o ymyriadau dynol yn y gorffennol a'r presennol. Mae amaethyddiaeth, coedwigaeth, aneddiadau, trafniadaeth, gwaith echdynnu mwynau, rheoli dŵr a diogelu arfordirol i gyd yn enghreifftiau o ymyriadau dyn ddoe a heddiw sy'n gallu newid cyflwr adnoddau naturiol y tu hwnt i bob adnabyddiaeth.

Mae'r amgylchedd hanesyddol wedi dylanwadu'n gryf ar ecoleg Cymru ac wedi cyfrannu at arferion defnyddio'r tir yn gynaliadwy sy'n dal i fod yn berthnasol heddiw. Gall safleoedd a nodweddion hanesyddol ddarparu ecosystemau cyfoethog a chwarae rhan bwysig yn y cysylltedd rhwng cynefinoedd.

Mae cyfuniad cydnaws o adnoddau naturiol a gweithgarwch dynol yn hanfodol ar gyfer cynaliadwyedd. Mae'r amgylchedd hanesyddol yn adnodd bregus, hawdd ei niweidio,

anadnewyddadwy a chyfyngedig. Gall camau i reoli adnoddau naturiol yn gynaliadwy effeithio ar, neu ategu a gwella'r amgylchedd hanesyddol, ac i'r gwrthwyneb, i ddarparu ystod eang o fanteision ecosystemol, lles, amgylchedd hanesyddol ac economaidd.

Mae'r naratif hwn yn crynhoi'r cyfuniad o ddiddordebau ac adnoddau amgylchedd hanesyddol a naturiol De Orllewin Cymru. Yn seiliedig ar dystiolaeth gadarn a gwybodaeth leol, mae'n amlygu nodweddion, manteision a materion allweddol sy'n cyd-fynd â Datganiad Ardal De Orllewin Cymru sy'n seiliedig ar le.

Y bwriad yw codi ymwybyddiaeth o'r gydberthynas fuddiol a phwysig rhwng yr amgylcheddau naturiol a hanesyddol gan arwain at ddulliau mwy cydgysylltiedig o ymdrin â heriau rheoli tir er budd cenedlaethau'r presennol a'r dyfodol.

Summary

In Wales we inherit a rich palimpsest of past and present human interventions. Agriculture, forestry, settlement, transport, mineral extraction, water management and coastal protection are all examples of past and present human interactions that can change the natural state of resources beyond recognition.

The historic environment has strongly influenced Wales' ecology and contributed to sustainable land-use practices which remain relevant today. Historic sites and features can provide rich ecosystems and play a significant role in the connectivity of habitats.

A harmonious combination of natural resources and human activity is essential for sustainability. The historic environment is a fragile, vulnerable, non-renewable, and finite resource. Actions to manage natural resources sustainably may impact upon or complement and enhance the historic environment, and vice-versa, to provide a wide range of ecosystem, well-being, historic environment, and economic benefits.

This narrative summarises the combined historic and natural environment interests and resources in south west Wales. Based upon robust evidence and local knowledge, it highlights key characteristics, benefits and issues that align with the place based South West Wales Area Statement.

The intention is to raise awareness of the beneficial and important interrelationships between the natural and historic environments leading to more joined-up approaches to land management challenges for the benefit of current and future generations.

Historic environment definition

The Conservation Principles for the Sustainable Management of the Historic Environment in Wales defines the historic environment as "All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and deliberately planted or managed."

An historic asset is defined as "An identifiable component of the historic environment. It may consist or be a combination of an archaeological site, a historic building or area,

historic park and garden or a parcel of historic landscape. Nationally important historic assets will normally be designated.”

You can [download the Cadw, Welsh Government Conservation Principles for the Sustainable Management of the Historic Environment in Wales, published in 2011, from the Cadw Welsh Government website](#)

The historic character of south west Wales

South west Wales covers the local authorities of Swansea, Neath Port Talbot, Carmarthenshire, Pembrokeshire, and Pembrokeshire Coast National Park.

This area is predominantly rural; characterised by large swathes of irregular and regular fieldscapes. Diversity is largely attributable to the nucleated settlement of Swansea, Neath & Port Talbot, and their associated coastal industries. The coastal settlements of Milford Haven and Pembroke/Pembroke Dock and inland, Haverfordwest and Carmarthen, while in relative terms are spatially large do not have the transformative effect on their hinterlands in comparison to the large settlements in south eastern areas of Wales. These hinterlands remain mainly rural with some pockets of processing and manufacturing near Milford Haven and Pembroke/Pembroke Dock.

LANDMAP Historic Landscape

LANDMAP is a complete all-Wales GIS based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent data set. The LANDMAP historic landscape dataset maps and records the historic character of the landscape visible today including land use, patterns, and features.

Historic landscape characteristics and assets can be traced back in south west Wales to much earlier periods. LANDMAP historic landscape areas include characteristics and assets that can be traced to particular chronological periods. In south west Wales 719 LANDMAP historic landscape areas contain assets linked to post medieval and 474 to the medieval period. 492 areas are associated with the prehistoric period, 142 areas the roman period, 156 industrial and 485 recent.

The LANDMAP dominant historic pattern for south west Wales is shown in Figure 1. Irregular fieldscapes account for 38%, the remainder is primarily regular fieldscapes (29%), marginal land (11%) and woodland (6%).

LANDMAP historic landscape evaluations identify landscape importance. In south west Wales 31% are outstanding (nationally important), 56% high (of regional or county importance), 7% moderate (locally important) and 3% are low (of little importance in the context of the national historic landscape dataset). As a general landscape management principle, we should seek to conserve and enhance outstanding and high landscapes as these contain characteristics of national and county value. Figure 2 maps the historic landscape evaluations of south west Wales.

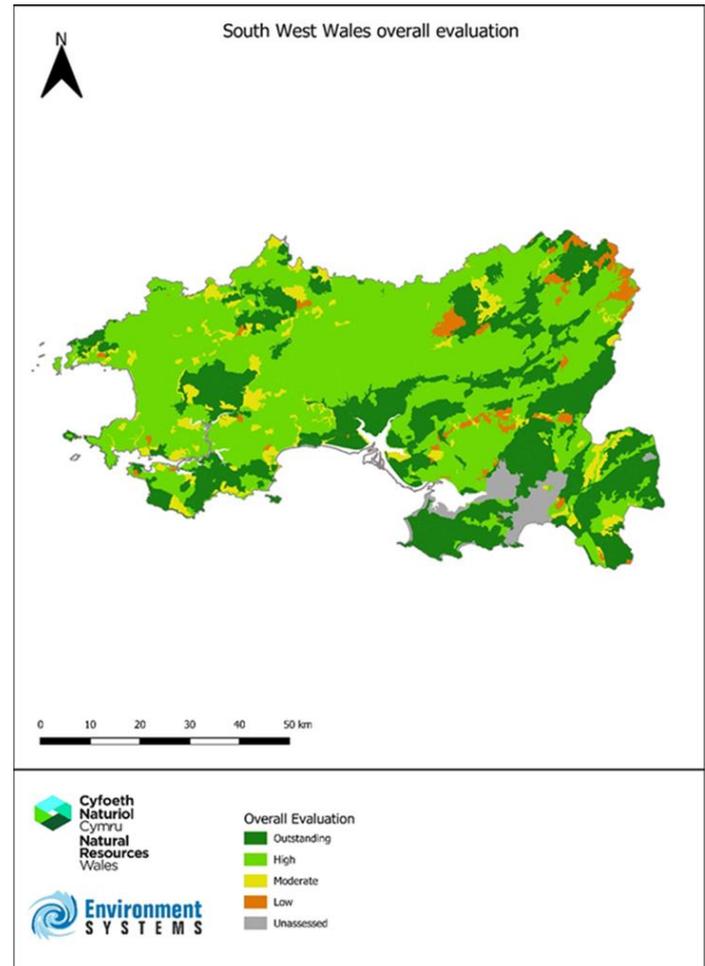
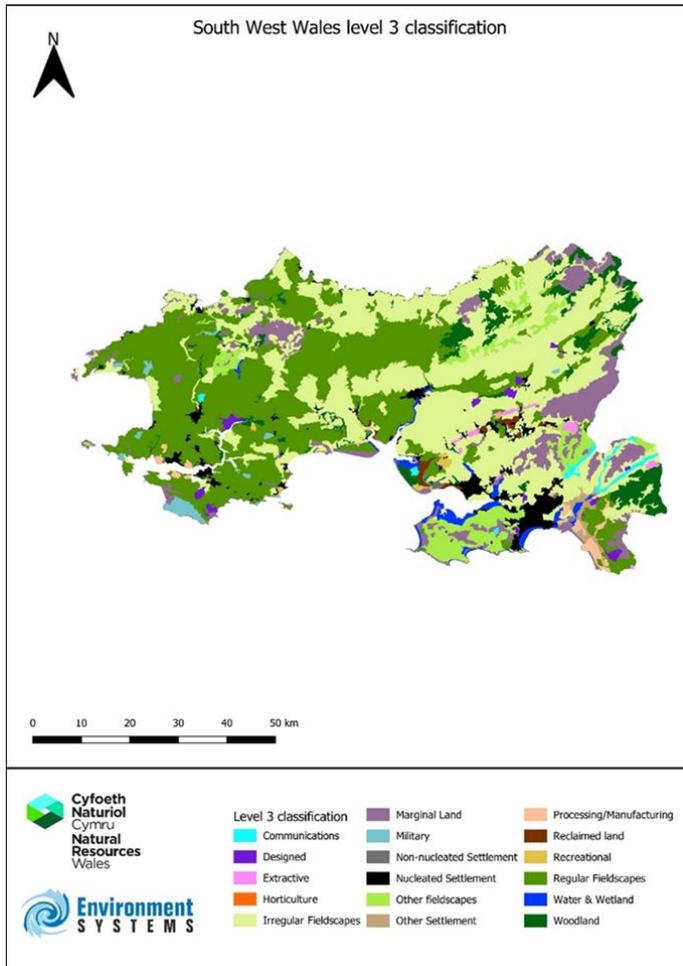


Figure 1 Historic landscape classification

Figure 2 Historic landscape evaluation

Register of Historic Landscapes

The Register of Historic Landscapes (RHL) identifies 58 landscapes of outstanding or special historic interest in Wales. The following are located in the south west Area Statement.

- Milford Haven Waterway
- Manorbier
- St Davids Peninsula & Ramsey Island
- Lower Teifi Valley (part)
- Tywi Valley
- Newport & Carningli
- Preseli
- Black Mountain & Mynydd Myddfai
- Dolaucothi
- Stackpole
- Taf & Teifi Estuary
- Skomer
- Drefach & Felindre
- Gower (West Gower & Cefn Bryn)

- Pen Caer; Garn Fawr & Strumble Head
- Margam Mountain
- Merthyr Mawr, Kenfig & Margam Burrows (part)

Historic Landscape Characterisation

Historic Landscape Characterisation (HLC) subdivides and characterises the registered historic landscape further. HLC narratives for each registered historic landscape explain the processes that have shaped the landscape over centuries of human activity, contributing to its present character. Figure 3 illustrates the Historic Landscape Character areas of the Preseli Registered Historic Landscape.

You can [view HLC information on the Dyfed Archaeological Trust website](#)



Figure 3 Preseli Historic Landscape Characterisation

Coastal margins & marine

The extensive coastal environment of south-west Wales ranges from sandy beaches, dune systems, estuaries, rias and saltmarsh to high cliffs and small rocky coves, each with its own particular ecosystem.

Past and present exploitation of these environments has resulted in distinctive historic environment features which contribute to biodiversity, such as the small ports and harbours of Gower and Pembrokeshire, historic land reclamation schemes of Laugharne marsh and Pembrey marsh in Carmarthenshire and the old fish traps/weirs on the foreshore of Swansea Bay and the Tywi estuary. Milford Haven waterway has a long

history of diverse and intense human activity yet hosts varied species and habitats and is the largest area of recorded oyster beds in Wales.

Artificial reefs in the form of historic shipwrecks provide rich breeding grounds and cover for fish and other marine life.

Rising sea levels are exacerbated by increased storm events and surges. Whilst submergence of historic assets may not result in their complete destruction, erosion of historic assets from storm surges can have a far more detrimental impact. Although the vulnerability of coastal and marine historic assets may differ, all are vulnerable to some extent.

Farmland and semi-natural grassland

Many generations of farmers, labourers and others created the fields and farms that characterise much of the landscape of south-west Wales. 192,000 ha of Wales is semi-natural grassland and farmland, 18,695 ha of lowland grassland Priority Habitat is in south-west Wales. Lowland meadows and marshy grassland are particularly well represented in this area.

Semi natural grassland connectivity and lowland meadows remain good on the military ranges on the Castlemartin Peninsula where there has been limited historic agricultural improvement.

Survival of rich ecosystems found in semi-natural grassland is related to past and present management regimes and is often associated with small farms on less favourable land, such as the upland margins of north Carmarthenshire and north Swansea, St David's Peninsula, land to the south-west of the Preseli hills and the commons and south coast of Gower, well connected historic landscapes that are among the best remaining grassland and associated habitat networks remaining in Wales.

Hedges, usually on banks, are the dominant, traditional field-boundary type strongly associated with Pembrokeshire. In the east of the area hedges are not generally on banks. Hedges provide havens for flora and fauna, especially in areas where improved grassland and arable dominate and play an important role in connecting habitats. Stone walls are important in the upland areas and also provide habitats for lichens and invertebrates. On valley floors they can reduce the impact of flooding. There has not been a significant loss of these boundaries since the Second World War, unlike in some areas of the UK.

In south west Wales 422 LANDMAP historic landscape areas contain hedges, 178 walls, 117 fences and railings. 81 areas are associated with bank boundaries, 68 areas cut drainage and 34 areas a cloddiau variant/stone and earth bank.

Neglect, coupled with diseases such as ash dieback threatens the integrity some historic fieldscapes and their value to biodiversity, particularly so on the urban fringes in Swansea and Neath Port Talbot and on the less intensively farmed upland margins.

The ensuring sustainable land management theme and intention to give greater attention to hedges and edges resonates well with the conservation and enhancement of historic boundaries.

Stone-built traditional farm buildings are distinct features of the rural landscape – in Carmarthenshire alone it is estimated that there are over 15,000 such buildings - and provide homes for bats, owls, and other wildlife. As a result of modern farming methods an increasing number of these buildings are becoming redundant, neglected, dilapidated, and demolished. In some parts of the region, such as the popular tourist areas of south Pembrokeshire, traditional farm buildings are increasingly being converted to residential use with a concomitant loss of habitat.

Drainage ditches, hedgerow trees and orchards are just a few of the many landscape features created or planted for economic exploitation or for ornament. Some, such as those on the many properties in the area managed by the National Trust, survive and are well maintained. Other examples can be found scattered across the region, and although relict they all are important elements of the historic landscape and contribute to ecosystems.

Survival of some features, such as the traditional orchards of the Tywi valley and Gower is poor, and veteran hedgerow trees planted and managed by large estates in the eighteenth and nineteenth centuries for timber are approaching the ends of their lives and are not being replaced.

The risks from climate change include erosion and damage to farmland earthworks, archaeological deposits, and historic structures. An extended growing season may intensify farming practices including ploughing fields not recently cultivated which may adversely impact on buried archaeological assets and may favour the removal of traditional field boundaries and their value as linear habitats. Pests and diseases may have adverse impacts living field boundaries. Desiccated grassland and farmland may lead to the discovery of new historic assets visible as parch and crop marks.

Fresh water

From the mid twentieth century artificial bodies of water in south-west Wales were created to supply clean drinking water to urban areas, such as the Usk Reservoir in Carmarthenshire that was designed to supply Swansea. Llyn Brianne in Carmarthenshire supplies water to a large population in South Wales with a secondary function to provide hydroelectricity since the 1980s. The source of the River Tywi is above Llyn Brianne reservoir, it is the longest river in Wales. Reservoirs were frequently accompanied by woodland planting to protect the clean water supply; they continue to be managed for their habitat and recreational interest in addition to this function.

Natural lakes are relatively rare in the area, but where they do occur some form of human intervention is sometimes evident. For instance, Llyn y Fan Fach, one of the most iconic sites in Wales due to its dramatic location at the foot of a sandstone escarpment and its association with the Lady of the Lake legend, was extended and deepened during the First World War in order to supply water to Llanelli, the work being carried out by conscientious objectors. As well as providing habitats for fish and other aquatic species, these water bodies contain important wetland margin habitats.

In the past greater use of water was made for power and transport. The many thousands of water mills in the area have bequeathed a legacy of small ponds, leats and weirs. Some ponds are maintained and provide water to power mills as at St Dogmael's in

Pembrokeshire, but most are now small bodies of water or boggy areas providing pockets of wetland habitat.

Ponds and lakes constructed in parks and gardens during the late eighteenth/early nineteenth century picturesque movement survive surprising well and provide rich habitats, particularly so as they were often accompanied by tree planting, which has now matured into rich woodland habitats. Good examples can be found at Stackpole in Pembrokeshire, Penllergaer in Swansea, and the Gnoll in Neath.

Irrigation seems unnecessary in the wet climate of south-west Wales, but in western Pembrokeshire most farms that cultivated early potatoes-built irrigation ponds, resulting in discrete aquatic ecosystems in an agricultural landscape.

Canals, constructed in the late eighteenth century/early nineteenth century to serve the expanding industries of Swansea, Neath and Llanelli provide important, rich, linear ecosystems, as well as unusual habitats around locks, bridges, tunnels, and other structures. Canals are important for recreation and as green infrastructure corridors. Many canals survive, such as the Swansea Canal, but rarely without some element of infilling.

The effects of a changing climate change are evident through increased flooding and high-water tables from warmer, wetter winters and extreme events and perhaps drying out too under hotter, drier scenarios.

All historic assets which lie within a potential flood zone are at risk, but particularly those within fast-flowing water. Historic canals, bridges, weirs, fish traps, quays and jetties are typical examples of high-risk assets. Flooding and damage to the Neath Canal has occurred.

Industrial landscapes (see also urban & built environment)

Past industrial practices have been landscape-shapers across the region, sometimes contributing dramatically modified landforms, such as the former coastal slate quarry at Aberiddi, and the lead-mining landscapes of upper Carmarthenshire, although much of the coal-mining landscapes of the Carmarthenshire and South Wales coalfield have been reshaped through reclamation.

The post-industrial legacy of nutrient-poor soils, rock exposures, wetlands, scrub, and woodland forms a mosaic of species-rich habitats across the region, and several former industrial sites are now important nature reserves or protected sites. The Clyne Valley Nature Reserve, for example provides a range of habitats on land formerly mined for coal, copper, and arsenic, and worked for iron and chemicals. West of Llanelli, the settling ponds of the former Carmarthen Bay Power Station (Ashpits Pond) are now a breeding site for wetland birds.

Water supply systems and transport routes (canals, tramways, trackways and railways) associated with industrial sites may also be important as wildlife corridors, these include the former Swansea canal, which is home to protected species including the brook lamprey and the European eel, and the Tennant Canal. They are also important green infrastructure routes for recreation, linking to the health theme.

The effects of climate change on the urban, built, and industrial landscapes are likely to be numerous. They are particularly at risk from sea level rise, flooding, increased ground moisture and precipitation, and more frequent storm events. The frequency and extent of maintenance and repair tasks is likely to increase. Additional risks to historic assets in industrial landscapes include the flooding and collapse of mine workings and shafts and the destabilisation of tips with the potential resulting risks of contamination and pollution in the natural environment.

Mountains, Moor, Heath

It is over 6000 years ago that people started to clear the mixed oak woodland that cloaked the hills and all but the highest peaks of the mountains of Wales. At first farming was limited to small clearings in the woodland, but as the population increased and with it the demand for more farmland all woodland was eventually removed.

By 3000 years ago, soil depletion as a result of over-farming coupled with a cooler, wetter climate meant that agriculture was no longer viable in many upland areas leading to abandonment and the development of peaty soils and the moorland we are familiar with today.

The south west Area Statement is the second largest covering 23% of Wales, of which 8% is upland with large expanses found on the Preseli Mountains, Pembrokeshire, The Black Mountain (the western part of the Brecon Beacons), Gower, and the uplands of north Swansea, Neath Port Talbot and north Carmarthenshire.

There are upland Special Areas of Conservation (SAC) e.g. Mynydd Preseli, a National Nature Reserve at Allt Rhyd y Groes and a Sites of Special Scientific Interest e.g. Mynydd Du, protected sites that link to historic land management that contributes to their conservation status today.

During the eighteenth and nineteenth century encroachment considerably reduced the areas of these moors and heaths and post Second World War coniferous forestry plantations and new techniques of improved grassland creation caused further large-scale reduction. The ensuring sustainable land management theme encouraging uplands and commons to be actively managed would be beneficial to these historic landscapes and potentially the historic assets they contain.

Moors and heaths are important carbon sequestrators and ecosystems, as well as distinctive historic landscape features, upland heathland in south west Wales comprises 11% of the total for Wales. Traditional grazing, usually sheep, but also cattle as on Mynydd y Betws, Carmarthenshire and Mynydd y Gwair, Swansea, maintain moorland habitats. Burning as a management tool was widely used until recently, but now much more rarely.

Exploitation of peat in bogs no longer takes place, but the remains of this once locally important industry are evident in the form of peat cuttings on almost all bogs, even those at high altitude. Drainage works to improve the land have also damaged the fragile ecosystems of bogs. Conservation works aim to reverse this damage and promote re-wetting of bogs.

It is rare to encounter an example of where recent human intervention has created a large extent of marginal land, but this has happened at Castlemartin in Pembrokeshire where land appropriated by the Ministry of Defence for a tank firing range just before the Second World War has largely reverted to heath, ironically on some of the best quality farmland in Wales. There is the potential for more loss of upland moorland and heath habitat through increases in woodland and encroaching bracken and abandonment due to a reducing number of active commoners and combined with this, loss of knowledge of traditional management techniques

The effects of climate change may result in the drying out and desiccation of peats and peaty soils, which threatens significant archaeological remains, historic environment assets will become increasingly vulnerable to degradation. Changing vegetation may impact on historic landscape character.

Urban & the built environment

From market towns established in the medieval period, to towns that owe their existence to industrial growth in the nineteenth century, the urban landscape of south west Wales is an important part of the distinctive character of the region.

Until the end of the nineteenth century, the dominant building materials were sourced locally, and many towns, villages and farms have quarries in their immediate vicinity which provide good geological exposures and distinctive habitats, for example in the vicinity of Llandeilo, Birdshill and Crug Farm quarries are Sites of Special Scientific Interest, and a further quarry forms part of the National Nature Reserve at Carmel.

Traditional buildings contribute to the character and distinctiveness of our towns, and may themselves be important habitats, for example supporting the growth of particular lichens, or providing roosts for bats and other wildlife. The lesser horseshoe bat, for example, chooses old stone walled buildings for its summer roosts (e.g., Carew castle), whilst its winter roosts include disused mines and unheated cellars.

Retaining existing buildings in use, improving their energy performance where appropriate, contributes to the way in which energy consumption and carbon emissions are managed.

Urban areas may also be associated with distinctive types of historic green space, from private gardens and allotments, to urban squares, parks, cemeteries and burial grounds, these are historic spaces that can contribute to the reducing health inequality's theme by including these assets in in the network of high quality, well connected green infrastructure and easily accessible recreational green space. Swansea for example has several important Victorian public parks, including Parc Llewellyn, Victoria Park and Cwmdonkin Park, as well as Singleton Park and Cwmgelli Cemetery. Tree cover in historic green spaces can contribute to well-being, air quality, moderating temperatures and reducing flooding.

Defensive buildings and structures built by and to guard against invaders are very visible across the region. Medieval castles remain dominant presences in both coastal and upland locations, deliberately positioned to control transport routes and to overlook and be seen across wide landscapes. These include many key tourist attractions contributing to a

viable and prosperous rural economy which resonates with the ensuring sustainable land management theme.

Examples include Pembroke, Carew, Laugharne, Kidwelly, Dinefwr, Dryslwyn and Carreg Cennen. Pembroke Dock and Milford Haven are notable for the density of nineteenth century “Palmerstonian” and twentieth century fortifications; many forts such as Scoveston, Hubberston and South Hook have become important bat habitats.

Woodland

The earliest surviving trees in the area are associated with the parks and gardens of large estates, such as Dinefwr in Carmarthenshire and Margam Park in Neath Port Talbot and probably date to the sixteenth and seventeenth centuries. Most of the woodland and trees in the numerous parks and gardens were planted in the late eighteenth and nineteenth centuries. Good examples are Clyne Castle Gardens, Swansea and Colby Woodland Garden, Pembrokeshire.

Up to the beginning of the 20th century, good quality woodland was a valuable asset and thus it was the large estates that owned and managed much of it in order to produce timber for building, charcoal for the iron producing blast furnaces as at Melincourt in Neath and Canaston Woods in Pembrokeshire, pit props for coal mines, oak bark to produce tannins for the leather industry and of course domestic fuel. Sport was not neglected, and copses were planted for game cover. With changing technologies and industrial decline deciduous woodland lost much of its economic value, but the legacy of its former importance can be seen in today’s landscape. For example, Briton Ferry woodlands, seen from the A48 and M4, has a significant mine next to it and a large industrial spoil in the woodland.

28% of all woodland has been present for at least 150 years, and probably up to 400 years, and are recorded as Ancient Woodland sites. 63 LANDMAP historic landscape aspect areas are associated with woodland, 6.3% of this area statement.

Many forest plants and animals survive in relict historic woodlands, dingles, plantations, hedgerows, orchards, parks and gardens. The diversity in fragments of native woodlands reflect local conditions and management history. The old oak woodlands in Cwm Phillip in Y Bryn hosts nationally and internationally significant mosses, liverworts and ferns and Ty Canol in Pembrokeshire (adjacent to Pentre Ifan Cromlech) with its ancient woodland twisted trees hosts nationally important lichens and mosses. Upland mixed ashwoods are locally important components of native woodland. Carmel National Nature Reserve near Llandeilo conserves ancient woodland alongside a disused quarry, where limestone was extracted since the Middle Ages.

All woodland in the UK has been modified by human behaviour in some way. In south west Wales we have a mixture of modified native and non-native woodlands. Very little woodland has completely regenerated naturally, that is without some form of human intervention. Whatever their origins, woodlands are important elements of the historic landscape and are important for carbon sequestration, supporting ecosystem resilience, recreation, timber reserves and as green infrastructure assets. All woodland types slow water run-off thus reducing the impact of flooding. Sustainable land management still draws on traditional, historic management methods such as coppicing and grazing wood

pasture, but also on modern mechanised techniques within the framework of selecting appropriate silvicultural systems.

Large-scale coniferous plantations began to appear in the landscape following the founding of the Forestry Commission in 1919 with planting on a large scale in the decades after the Second World War to replace and create new woodlands following depletion during the war. For example, afforestation at Brechfa in Carmarthenshire and Rheola and Aberpergwm in Neath Port Talbot. Within many of our large-scale plantations historic environment assets such as veteran trees, earthworks, historic structures, and buried archaeology are often found and preserved.

In relation to the cross-cutting theme of mitigating and adapting to a changing climate, the risks to woodlands relate to the vulnerability of veteran trees, historic woodlands and plantations from pests, pathogens (e.g., Ash dieback and Larch disease), and invasive species as well as stress from changing conditions.

The predicted effects of soil erosion, land-use change, and slope instability could all damage individual historic features within woodlands, changes in the frequency and magnitude of high winds may cause more damage from wind blow affecting built and buried archaeology.

Large areas may become unsuitable for sessile oak by 2080. Oak is also at risk from Sudden Oak Death and ash from dieback. Oak and ash are distinctive components of our wooded landscape and fieldscape and ancient oaks are strongly associated with historic parks and gardens. Changes to species geographical ranges could mean that historic species with strong cultural connections could be lost.

Pressures and risks for the historic environment

- Changes to agriculture practices, including intensification of dairy/beef/sheep, a particular issue in parts of Pembrokeshire such as the Preseli area.
- The loss of knowledge of traditional land management practices can erode local distinctiveness, sense of place and sustainable land management
- More arable/horticulture, pasture/marginal land replaced by woodland, reduction in grazing in upland areas.
- New housing, light industry, and other developments on the edges of settlements, Swansea, Neath Port Talbot, south Carmarthenshire, and south Pembrokeshire.
- Expansion of industry around Milford Haven Waterway, Swansea, Neath Port Talbot.
- New renewable energy infrastructure. Solar panel farms across the area, and wind farms on the higher ground of Swansea, Neath Port Talbot, and Carmarthenshire.
- New development to serve an increase in tourism, particularly on Gower and south Pembrokeshire and visitor footfall pressure particularly on coastal, upland, and marginal historic sites.
- Loss or conversion of traditional farm buildings increase in large steel-framed farm buildings.
- Loss of mature hedgerow trees.
- Natural deterioration of historic assets including collapse and loss of masonry structures, erosion of earthwork monuments and coastal erosion.

Climate change related risks

- Coastal historic settlements and landscapes will experience change from erosion, storm surges and flooding.
- Upland environments will be vulnerable to the drying out of wetlands and peatland with subsequent degradation or erosion of historic assets and increased fire risk.
- The potential upward migration of moorland habitat, western gorse and bracken to higher altitudes coupled with changing growing conditions may affect land use and character in the uplands.
- Increasing water inundation and flooding, soil erosion and landslips in lowland historic landscapes.
- The historic character of wooded landscapes and individual trees in parkland landscapes, fieldscapes and hedgerows are at risk from storm damage pests and diseases inducing stress, dieback, and loss.
- The deterioration of traditional rural buildings may be accelerated by climate change.

Further Information

You can [view the South West Wales Area Statement on the NRW Area Statement page](#)

You can [view the Historic Environment Records of Wales on the Archwilio page](#)

You can [view the National Historic Assets of Wales on the Cadw Cof Cymru page](#)

You can [view the Coflein catalogue of archaeology, buildings, industrial and maritime heritage in Wales on the Royal Commission on Ancient and Historical Monuments of Wales page](#)

You can [view quality assured LANDMAP data on the Wales environmental information \(beta\) portal webmap](#)

You can [download LANDMAP datasets from Lle: A Geo-Portal for Wales](#)

You can [download the Historic Environment and Climate Change in Wales Sector Adaptation Plan from the Cadw website](#)

Visit the [Dyfed Archaeological Trust website for further information](#)

Nolan T*, Duckers G+, Martin C+, Medcalf K*, Breyer J*, Bullen, Jx. 2020. LANDMAP Historic Landscape Statistics. NRW. Report No: 393, 313 pp, Natural Resources Wales, Cardiff. * Environment Systems Ltd + Clwyd Powys Archaeological Trust x Natural Resources Wales is available upon request.

W.M Condry. 1981. The Natural History of Wales

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Last updated 10 January 2022



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Tennant Canal, Neath Abbey © Crown copyright (2018) Visit Wales



Llandeilo © Dyfed Archaeological Trust



Dryslwyn castle in its landscape setting © Crown copyright (2019) Cadw, Welsh Government



Marloes Sands, Pembrokeshire © Crown copyright (2021) Cymru Wales



Hay meadows of Foel Eryr © John Briggs