

Machynlleth Forest Resource Plan

Summary of Objectives

Location and Setting

The Machynlleth Forest resource plan area totals 1809 hectares comprising the five different forest areas of Pennal, Dyfi Bridge, Cilgwyn, Forge and Commins Coch.

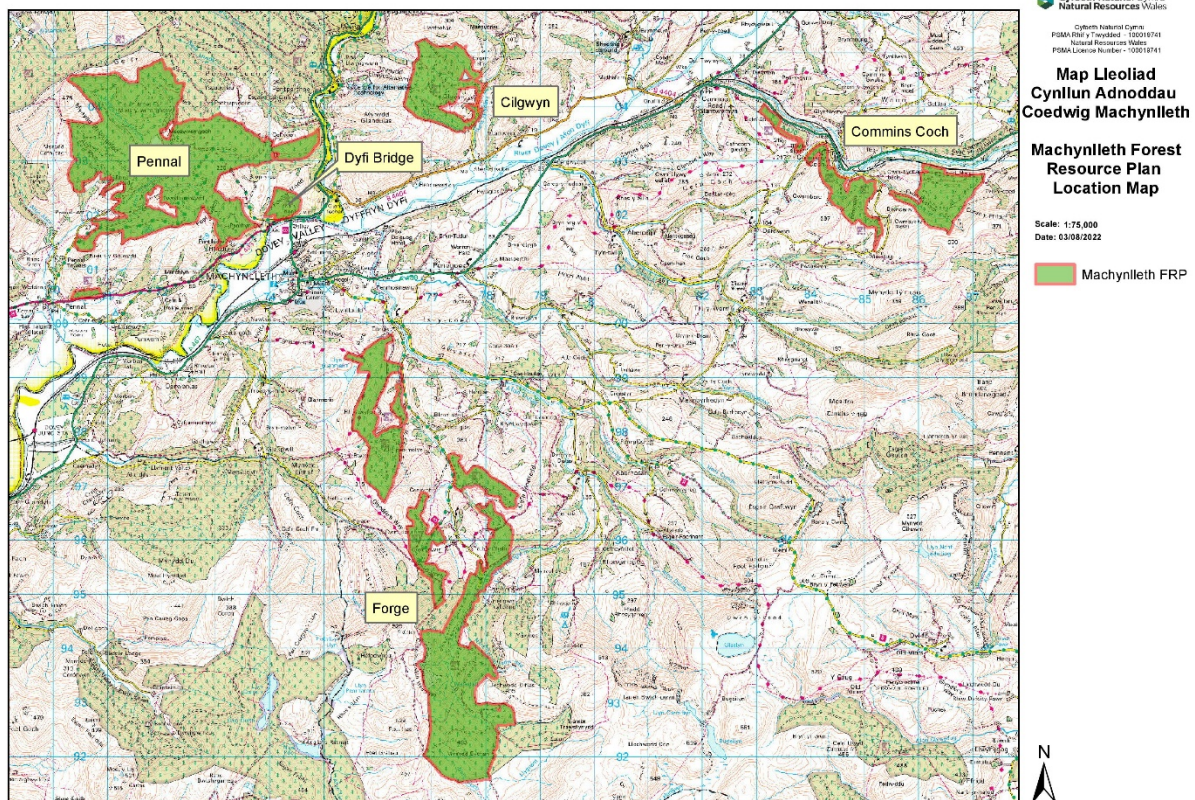
The plan covers fully operational and productive forest blocks that, not only deliver multiple ecosystem service benefits but, contribute to the mid Wales timber industry and the local economy.

The forests sit in a landscape that straddles the Dyfi (Dovey) Valley, an important river catchment that feeds into the Dyfi Estuary SAC, SPA & SSSI and flows out into Cardigan Bay.

The Pennal and Dyfi Bridge portions of the forest sit within Snowdonia National Park.

Other important designations close to these forest blocks include the Cadair Idris SAC & SSSI to the north and the Pumlumon mountain range SSSI, Cwm Llyfnant SSSI, Mwyngloddfeydd Esgair Hir Ac Esgair Fraith SSSI and Pencreigiau'r Llan SSSI to the south, close to Forge.

The closest large population resides in the market town community of Machynlleth (population 2,235). Access to the forests: for Pennal and Dyfi Bridge is via the A487, for Cilgwyn via the B4404, for Forge via the Forge Road south of Machynlleth and for Commins Coch via the A470 trunk road.



Summary of Objectives

Within the forest resource plan and coupe planning:

- **Sustainable Forestry Management to support climate change resilience through species diversification, carbon sequestration and good silvicultural practice** - The potential to diversify species on these sites is supported by good soils and beneficial elevations, as such this plan suggests broadleaf diversification as per below objective with PAWS restorations in addition to growing a wider diversity of productive conifer species on the upland brown earths across a majority of the plan. Opportunities to establish zones of continuous cover forestry should form an additional part of this objective.
- **Ancient Woodland Restoration and Broadleaf connectivity** – Opportunities to enhance ancient semi-natural woodland and restore PAWS are available across the plan and therefore should be taken in order of restoration potential. Areas of Phytophthora infected larch stand removals could be utilised for accelerated broadleaf connectivity and habitat creation.
- **Natural Flood Management and flood monitoring** – Opportunities to enhance water quality, mitigate against flooding for populations downstream of forest units and the monitoring of such activity are available across the Machynlleth plan. Pennal 50 project has been funded to implement and monitor some natural flood management structures recently installed around the Pennal block – similar projects could be facilitated within the lifetime of this plan.
- **Water management** – The Llyn Peninsula and the Sarnau SAC, and both the SPA and SSSI designations of the Dyfi Estuary mean that water management is paramount. In addition, regions of acid sensitive catchments failing due to acidification overlap at the east of Pennal, the western edge of Cilgwyn and the southern part of Forge.
- **Riparian management** – The numerous watercourses across the plan generally flow to the Dyfi estuary and therefore in-combination impacts of forestry operations need to be minimised. Riparian management and maintenance will enhance the forest's biodiversity and habitat connectivity along the riverine areas, whilst contributing to mitigation of siltation and surface run off and support water protection.
- **EPS & Section 7 species** – The forest benefits from a diversity of habitats, elevations and species composition which has resulted in numerous sightings of section 7 species (including dormouse, bat species, small pearl bordered fritillary and black grouse). Areas in Pennal, Cilgwyn and Dyfi Bridge, where these sightings are most recent, could be developed further for those specific species.
- **Pine Marten** – Scope for development of habitat suitable for pine marten reintroduction could be explored given the potential for species establishment, biodiversity improvement and pest control against grey squirrel (and furthering red squirrel habitat promotion). The Vincent Wildlife Trust could be engaged to take this project further.
- **Timber production** – This will be maintained and timber despatches from productive areas of the forest will be combined with conservation and restoration objectives. The operational forestry will utilise clearfell and lower impact systems will be utilised throughout the plan to achieve the greatest benefit to the environment, local economy and community.

- **Heritage, Landscape and Recreation** – Scheduled monuments, heritage features and cultural heritage points should be protected and kept free of productive forestry operations in order to preserve the historical value of these locations within the forest. Public Rights of Way that thread through the forest plan should be maintained and enhanced where possible to attract more visitors to the forest.
- **Education** – Opportunities for community outreach and education via Outdoor Pursuits, Outward Bound and other channels are available and should engaged to increase the educational benefits around these forestry resources
- **Access and Infrastructure** – In particular, for Commins Coch forest block where access will be needed for statutory plant health notice felling of infected larch, thinning operations where much of the site is PAWS and therefore under LISS management.
- **Deer Management** - Infrastructure should be maintained and/or enhanced to ensure adequate mammal control for successful crop regeneration and establishment.

Summary of the main changes that will occur in the forest:

- Throughout the coming plan period, the various Machynlleth Forest blocks will remain important productive woodlands, providing a sustainable supply of timber to support employment and the Welsh economy.
- Species and structural diversity will be significantly enhanced, providing greater resilience to pests, disease and climatic changes.
- Areas of 'Plantation on Ancient Woodland Sites' (PAWS) will undergo a steady conversion back to native broadleaf woodland, with connectivity between these remnant features being maintained and enhanced through the management of adjacent crops.
- The expansion of robust riparian corridors of native broadleaf and successional woodland, will further improve habitat connectivity and provide enhanced buffering to protect water quality and designated features further down the catchment, and provide opportunities for natural flood management.
- An incremental 'Low Impact Silvicultural System' (LISS) approach will be favoured wherever the physical constraints of access, exposure and management history of existing crops will allow, bringing 557ha (31%) of the woodland into some form of continuous cover management. As future young crops are brought into a cycle of regular thinning, this proportion will rise further over time.
- The rapid spread of *Phytophthora ramorum* will require the highly accelerated removal of larch crops across the plan area. With 12% of the forest presently comprising larch species, their removal will be a significant driver behind the proposed clearfell program over the next few years.
- The identification and preservation of heritage features within the forest, and the provision of healthy access opportunities for the community will remain as important objectives.