Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Strathyre Forests Long Term Plan Concept Summary



Looking north to Strathyre Village with Stronyre in the foreground.

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It's important to keep people informed about management proposals affecting their local forests.

Forestry and Land Scotland's forests are independently certified as being responsibly managed. We're regularly audited against the United Kingdom Woodland Assurance Standard – the standard endorsed in the UK by the international Forest Stewardship Council® and the Programme for the Endorsement of Forest Certification.

Keeping in touch with our stakeholders is an important part of the standard. We welcome comments on these proposals.

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Long Term Plan Vision and Objectives

Long Term Plan vision:

A resilient and productive mixed woodland which provides a sustained output of high-quality timber, enhances landscape value, and provides habitat for priority species. Significant areas of PAWS will be restored, and native woodland expanded. Tree species and age diversity will be increased, and suitable water quality maintained for local communities and the environment.

Objectives for the next 10 years:

1. Remove the majority of larch from the Long Term Plan area.
2. Continue to protect water quality through appropriate design and management, particularly in the context of drinking water supplies and the River Teith Special Area of Conservation.
3. Enhance forest resilience and maintain sawlog output for future rotations, while improving structural and species diversity.
4. Minimise the landscape impact of forest management where possible, particularly in and around key visitor areas.
5. Retain a continuity of mature woodland habitats for priority species (e.g. red squirrel, woodland raptors).
6. Expand native woodland, particularly on and around Plantations on Ancient Woodland Sites and Ancient Semi-natural Woodland, developing landscape-scale habitat networks.

Management Concept

Concept introduction

The Strathyre Forests Long Term Plan (LTP) area covers approximately 4,225ha (42km^2) and includes a diverse range of landscapes, forest types, and habitats. To support public engagement, the LTP area has been divided into three broad zones, with four target notes highlighting specific areas of interest. These provide an overview of the characteristics, intended management objectives and future management direction for different parts of the forest. However, the zone boundaries, depicted on map **CM1**, are not definitive and do not represent a single management approach or woodland type across each area.

‘Mixed Woodland’

This area contains significant elements of native woodland, Plantations on Ancient Woodland Sites (PAWS), Ancient Semi-natural Woodland (ASNW), and other environmental interests. It is generally more visible in the landscape and often in close proximity to important recreation and transport corridors such as the National Cycle Network Route 7 (NCN7) and A84. There are also significant areas which have greater access challenges due to extensive steep slopes and/or isolation from the forest road network. Much of the area offers good opportunities for establishing a diverse range of species with favourable soil and climatic conditions.

The strategic objectives for this area include biodiversity, landscape, amenity and public access, with timber production continuing in significant areas where appropriate. The management of existing stands is likely to be through a combination of clearfelling and Lower-impact Silvicultural Systems (LISS) – including long-term retentions, minimum intervention and Continuous Cover Forestry (CCF) management. Restocking will aim to establish a diverse forest area, with major areas of native woodland focused on and around PAWS, ASNW, and other key habitats; and a range of coniferous species established for timber production.

'Conifer Forest'

This area is predominantly coniferous plantation with fewer areas of native woodland and other environmental interests; and it is generally less visible in the landscape and further away from key transport and recreation areas. Access is generally good, although there are areas with steep slopes, or which are isolated from existing access infrastructure. This area offers similarly favourable climate and soil conditions, although these become limiting at higher elevations.

The strategic objective for this area will be sustainable timber production, with due consideration given to other interests as per standard forestry management requirements. Management of the existing stands will be primarily to achieve the production of sawlogs (and/or other timber products), with key areas identified as long-term retentions for the benefit of priority species where appropriate. The default management system will be clearfelling, although LISS systems may also be pursued if suitable for delivering local site objectives. Restocking will generally aim to establish high-yielding conifer species for sawlog production; however some non-intervention areas may also be required, particularly for water quality protection.

'Open Hill'

This area comprises the majority of the open hill ground within the LTP area, with smaller areas of existing or planned open ground included in the 'Mixed Woodland' and 'Conifer Forest' areas. This area forms the backdrop to much of the lower afforested land, and indeed the surrounding landscape; and includes both areas with significant footfall (e.g. Ben Ledi), and those which are seldom visited (e.g. Ardnandave Hill). Only the main hill summits are above the likely altitudinal limit for tree growth, although much of the area is identified as priority open habitat.

The overarching objective for this area will be maintaining or improving biodiversity and landscape value. Management of this area will include maintenance of the priority open habitats (e.g. through the clearance of non-native regeneration), with the potential for some woodland expansion through planting and/or natural regeneration in suitable locations.

Concept Target Notes

The Great Trossachs Forest and Leny Wood

The Great Trossachs Forest and Leny Wood are key areas for landscape scale biodiversity enhancement comprising the Great Trossachs Forest (GTF) National Nature Reserve, the Leny Flushes Site of Special Scientific Interest, and significant areas of PAWS, ASNW, and other native woodland. The overarching objective for this area is the enhancement of biodiversity value, primarily through restoring, protecting and enhancing native habitats. However, existing areas of conifer forest are also considered valuable for numerous priority species and therefore a balance must be sought between maintaining these habitats in the short to medium term, and the progression to more native habitats in the long term. FLS is a partner in the Great Trossachs Forest and will continue to work alongside other partners to deliver the GTF 200 year vision.

Loch Lubnaig

This is a highly scenic area with several popular visitor destinations; including The Cabin café just off the A84, and the Forest Holidays site on the western shore of Loch Lubnaig. A key objective for this area is therefore to preserve visual amenity by minimising the impacts of forestry operations on the landscape and recreation as far as practical. Change is inevitable, with windblow already beginning to impact the mature conifer stands, and careful felling and replanting design will therefore be required to address the numerous challenges in the area.

Runacraig

The area between Runacraig and Immervoulin contains a large PAWS site of high conservation value, with numerous native woodland remnants. It also contains some of the steeper slopes in the LTP area and lies in close proximity to the major A84 trunk road. The conifers established here in the 1980s are now well within their expected felling age for timber production, and also include significant elements of larch. The long-term objective here is to restore a significant proportion of this area to native woodland; and a phased but relatively rapid felling program (over c.10-20 years) is likely to be the most effective way to achieve this by minimising the risk of non-native conifer regeneration, the disruption caused by felling, and the risk of windblow.

Strathyre

Located to the northwest of Strathyre Village, this is the main area with a developed CCF structure; and is one of the most diverse areas of the forest, with a wide range of different conifer species and a diverse forest structure. The advanced age, high yield classes, and diversity of species in this area make it potentially interesting from a research perspective, while it is also a valuable area of mature woodland habitat. While previous plans identified the area for restocking with diverse conifers, its management under CCF systems has resulted in significant areas of Sitka regeneration. Careful management planning will therefore be required going forward to balance the conflicting desires to retain mature conifer woodland while establishing more diverse conifer species in the long term.

Habitat and NCN7 links

These show the primary strategic habitat corridors which will be established in the LTP area over the long term. The NCN7 corridor will eventually provide a permanent, primarily broadleaved, woodland corridor along the west side of Loch Lubnaig which will benefit the migration of species along the Strath; as well as reducing the future impact of forestry operations on this route. The main habitat links run off this spinal corridor, following the major tributaries of the Teith catchment. In addition to these core linkages, further secondary habitat links will be identified as part of the detailed LTP proposals.

Outline Management Proposals

Larch removal

The strategic removal of larch to mitigate the impacts posed by *Phytophthora ramorum* remains a key objective of this LTP (see above). Felling permission for all larch has already been granted under the Strathyre Forests Strategic Larch Removal Plan, and this felling will form the basis of felling proposals under the LTP. However, the LTP also provides an opportunity to review the larch removal proposals against wider management aspirations.

Felling and thinning

While previous plans identified significant areas of forest for management under Continuous Cover Forestry (CCF), only a comparatively small area has been managed in this way; and owing to the existing stand and site conditions across much of the LTP area, clearfelling will likely be the predominant management intervention over the next 10-year period. More detail on the likely reduction in proposed CCF is given below and in the supporting documents.

Clearfell coupes will be designed to minimise the risk of windblow in adjacent stands, avoid negative landscape impacts where possible, and reduce the risk of undesirable seeding on adjacent sites such as PAWS. Felling will typically be prioritised in areas containing larch and/or windblown trees, with additional felling likely to focus on areas where trees have reached their normal felling age (see map **CM2**). For the purposes of this plan, the normal felling age is likely to be at least 35 years of age. However, not all of these areas will be felled within the next 10 years; while limited felling may also be pursued in other areas, for example to maintain or restore habitats, or to help transition to an alternative species. The currently approved felling areas are expected to remain the main areas of felling during the first five years of the plan, although exact areas may change. In some of these locations, felling may already be underway or have been completed under the existing plan.

Thinning will be pursued on suitable sites to improve tree growth and future management options such as CCF, for environmental purposes, or to remove larch without the need for clearfelling (see map **CM3**). In general, no thinning will be undertaken in areas where we intend on transitioning Sitka spruce to other species, in order to reduce the potential quantity of Sitka

regeneration. Proposed felling and thinning areas will be further refined through the LTP development considering a range of factors, including forest structure, landscape, and biodiversity, and accounting for relevant stakeholder feedback.

Woodland retentions and CCF

As part of the LTP development, we are identifying a range of mature woodland retentions which will provide important habitat and landscape value in key areas. Minimum intervention woodland will be identified where little or no woodland management (felling/thinning) is considered necessary (e.g. the Leny Flushes SSSI), while long-term retentions (LTRs) will be identified in areas where eventual felling will be required (e.g. in mature conifers above the NCN7). In order to maintain the specific values these LTRs provide (such as habitat for red squirrels), we will aim to retain these areas until a suitable replacement is available – although in some instances earlier intervention may be required, for example due to windblow events.

While previous plans identified significant areas of West Strathyre, Strathyre East and Kirkton for management under CCF, only a comparatively small area has ever been managed as such. Experience gained over successive plan periods has shown that some of the proposed areas are not suitable for CCF management; therefore the new LTP will revise these areas to ensure CCF is focused on suitable locations where it can realistically deliver the relevant management objectives. Where CCF is not considered suitable going forward, alternative management systems will be identified. The supporting document '*Strathyre Forests Long Term Plan approach to CCF*' provides more information on the rationale, challenges and future approach to CCF.

Future species choice

When 'restocking' (i.e. replanting) woodlands we use a system called Ecological Site Classification (ESC) to help determine the most suitable trees to plant based on local site conditions, very similar to the techniques first used to establish Strathyre Forest in the 1930s.

For native woodland planting, we will aim to establish a range of species relevant to the local native woodland type, as per relevant guidance. For areas of softwood timber production, we will primarily use a selection of six well-understood coniferous species, with other minor species established in small-scale trials.

PAWS restoration

Plantations on Ancient Woodland Sites (PAWS) are areas of historic native woodland which were planted over with introduced species from the 19th century until the mid-1980s. However, in recent decades there has been better recognition of the value of our native woodlands, including PAWS, and the benefits of conserving these areas. Strathyre contains a number of PAWS sites of varying age, character, and 'ecological potential'. While significant areas of PAWS have recently been transitioned back to native species around the Pass of Leny, much of the remaining PAWS in the LTP area remains under non-native conifer plantation. Much of this is now at, or close to, its normal felling age, and several PAWS areas also contain elements of larch. Therefore, over

the next 10 years and beyond, we aim to undertake a proactive felling program on the majority of these areas with the intention of transitioning these PAWS to native woodland.

Water Quality

Strathyre is a sensitive area with regard to water quality with numerous potential receptors, including public and private water supplies, and designated aquatic habitats. We will continue to protect water quality within all catchments through adherence to the relevant regulations and industry best practice, and through suitable engagement with the relevant stakeholders.

A key issue for the Strathyre LTP area is the presence of numerous private water supplies (PWS) (i.e. water supplies which are the responsibility of the property owner(s) and not Scottish Water). As per industry guidance, we must ensure that all relevant PWS are suitably recorded in order for these to be identified and protected during any operations.

If you believe or suspect that you have a private water supply which originates from the LTP area, you must contact us to confirm the location and type of supply so that this can be suitably identified and protected during any forest operations.

Flood risk

Strathyre, Callander, and the A84 are identified as areas potentially vulnerable to flooding by the Scottish Environment Protection Agency (Flood Risk Management Plans: Fort Local Plan District). The main source of flooding in these areas is from the River Balvaig and the River Teith, although there is also a risk of surface water flooding. For Strathyre, the above Flood Risk Management Plan also identifies *'records of floods arising from small watercourses and runoff from the surrounding hillside since 2015*'. No specific actions are identified in the Flood Risk Management Plan relating to forest management and the UK Forestry Standard states that: '*As a guide, the scale of felling is unlikely to be large enough to significantly increase flood risk where there is less than 40% forest cover present within the upstream catchment of vulnerable communities or assets.*'. For Strathyre and Callander this means that felling operations will have no likely effect on river flood risk in these locations, as the area of forest cover is well below this threshold in the respective catchments (being 26% and 34% of the respective catchment areas).

For smaller watercourses and surface water, advice previously obtained from hydrologists at Forest Research suggests that flood risks need to be assessed on an individual site basis based on local information. We therefore ask that any concerns regarding flooding arising from individual small watercourses are raised as part of our stakeholder engagement exercise so these can be assessed and, if necessary, accounted for as part of the detailed LTP development.

Other environmental considerations

We will adhere to the requirements set out in the UK Forestry Standard and UK Woodland Assurance Standard to suitably protect priority and protected species, habitats, and heritage features throughout the forest planning process and during any operations.

Public access

There are no plans to significantly alter public access as part of this LTP and we will continue to welcome responsible public access in accordance with the Scottish Outdoor Access Code.

Where trails are affected by forestry operations, appropriate temporary closures will be implemented and, where possible, suitable diversions provided to maintain access while ensuring public and operator safety. Access to key routes such as core paths and rights of way will be maintained and restored as required after operations. Liaison with the Local Authority Access Officer will continue to be carried out as appropriate.

Civil Engineering (forest roads and quarries)

Our forest road network is critical to undertaking our sustainable forest management activities, and provides enhanced open access opportunities to our forests under the Scottish Outdoor Access Code. Although much of the LTP area is served by existing forest roads, upgrades to these, as well as some new roads, will be needed to facilitate forest management.

To undertake forest road upgrade and construction projects, we aim to use local sources of stone from forest quarries to reduce or eliminate the need to import stone from other locations. While we have some existing quarries within the LTP area, these will not be sufficient to supply the stone required over the next ten years and new quarries will therefore be required in several locations. New forest roads and quarries are shown on map **CM4** and more information is provided in the supporting document '*Strathyre Forests outline civil engineering proposals*'.

Timber Transport

While no permission is required for timber haulage on public roads, the forestry industry recognises that timber transport has the potential to impact minor rural roads and local communities. Timber Transport Management Plans (TTMPs) are voluntary agreements which set out how timber can be hauled safely while recognising potential impacts. Timber Transport FAQs

The Balquhidder Glen TTMP applies certain voluntary restrictions on the haulage of timber on routes in Balquhidder Glen and through Strathyre Village onto the A84. We will always aim to operate within the scope of this TTMP, and continue to engage with the annual review process.