



## Accessible Text for Maps

### Analysis map

Merkins, Auchineden and Auchentorlie are productive conifer zones supplying a range of sustainable timber products to wood using industries. Income generated from this timber is used to fund other activities and services across the forest. However, age structure of forest stands is still limited and remaining 1st rotation crops are often unstable, do not reflect landform or have limited species diversity.

Opportunity to continue restructuring forest stands to secure a resilient future timber supply and meet other UKFS requirements. Potential delivery mechanisms include the phasing of felling areas, use of long-term retentions and improving forest design at restocking

Operational access into the forest comprises a mix of temporary agreements and permanent acquired rights. There are several opportunities to improve connectivity across the plan. This would secure long term operational access, assist deer control and provide informal recreation opportunities. It would also benefit 3rd parties such as utility providers. Factors such as 'micro-siting' and landscape mitigation would need consideration.

Dumbarton Muir and Saughen Braes: Perhaps the most remote upland zone in the plan consisting of open habitats and scattered peat fringe woodland. It has low visitor usage except along the John Muir Way (JMW). The FLS peat restoration programme is expanding and connecting priority open habitats. Native woodland creation is largely complete but some riparian zones were not planted. Deer fencing is still present and, in some places, having a negative effect by containing deer.

Opportunity to progress the removal of deer fencing to assist deer control. Opportunity to complete and maintain restored peat habitats as mire vegetation regenerates. Opportunity to review native woodland riparian habitats and investigate longer term expansion.

The forest sits within the 'Priority Action Zone' of SF's 'Phytophthora ramorum larch Action Plan'. This zone is where actions will have greatest impact on controlling the spread of *P. ramorum*. Opportunity to review current quantity and distribution of larch species and schedule operational access, removal and replacement with suitable alternative tree species.

Anti-social behaviour such as unauthorised trail bikes, vandalism and setting of fires is a continuing issue affecting local residents, existing forest users and emergency services. The main hotspots are in southern zones of the plan. FLS and external partners currently have limited resources.



We will continue to use limited resources to target anti-social behavior hotspots. Help legitimate forest users to report crime. Investigate path diversion routes away from local residents. Consolidate forest-wide information on wildfire threats, important assets, fire-fighting access/infrastructure.

Highly visible south facing slopes and summits deliver a wide range of public benefits. They contain key forest entry points, linking densely populated urban areas to more remote upland zones of the plan. They are visible from many parts of Glasgow City and form a prominent landscape backdrop to the River Clyde and Antonine Wall UNESCO World Heritage Site. They converge with nationally protected conservation sites and ancient woodlands. Management of these zones should continue to reflect their high value for informal recreation, landscape and conservation. There is now opportunity to manage recently established woodland using low intensity silvicultural systems. This includes alternative conifer stands that will require thinning for longer term stability and retention.

Recent restructuring has allowed better forest design close to ancient woodland and nationally protected sites. Some less accessible spruce stands still remain that could negatively affect some sites.

Opportunity to progress restructuring of less accessible conifer stands as agreed with NatureScot.

Windblow is rapidly spreading through remaining mature conifer stands at Auchentorlie and Auchineden. We are still reviewing damage from Storm Eowyn.

Opportunity to phase felling over the next 10 years based on the spread of windblow. This will ensure harvesting and restocking operations are still economically viable.

Duncolm Hills: This more remote central upland zone incorporates longer distance walking routes and popular viewpoint locations along the Duncolm Hills. Recent new planting has created a network of low density native woodland and successional open habitats. Deer fencing is still present and, in some places, having a negative effect by containing deer.

The management priority is to ensure establishment of young woodland by removing deer fencing to reduce containment effects and allow more active deer control.

Large parts of the plan fall within locally designated landscape and conservation sites. The previous plan considered their key features to ensure their protection and, where practical, enhancement through future forest design.

Opportunity to review progress of forest restructuring with regard to these designations and make adjustments where necessary.



## Concept map

The 'concept' or strategy for each zone describes future management aspirations. It takes into account local qualities, resources and sensitivities.

### Core sustainable timber production zones.

We will continue to restructure forest stands to....

- Maintain a core supply of marketable timber products;
- Improve operational & visual design;
- Protect water supply infrastructure & enhance catchment zones;
- Extend ride networks & windfirm coupe boundaries - to improve forest resilience & age restructuring potential;
- Expand the network of mixed woodlands managed at lower intensity for conservation, water quality & amenity;
- Protect &, where practical, enhance the setting of heritage features & important path networks (e.g. core paths, John Muir Way).
- To deliver these outcomes we will maintain a number of forest quarries supplying stone for management access.

Ancillary objectives will be delivered based on site specific factors:

- Diversify timber producing tree species;
- Expand & maintain native woodlands;
- Thin forest stands & use alternatives to clearfell;
- Restore priority open habitats.

### Riparian zones of main water bodies & their immediate setting.

- Tailor restock design to reflect the ecological sensitivity & amenity value of these zones with a focus on UKFS & 'drinking water supply' best practice;
- Maintain &, where budgets allow, enhance visitor services infrastructure;
- Investigate opportunities for riparian native woodland expansion in the longer term.

### Duncolm Hills.

- Continue to manage as a remote upland landscape of low density native woodland & successional open space.
- Gradually remove deer fencing & control deer populations to allow establishment of young native woodland.
- Protect heritage features & public access routes, enhancing immediate setting through forest design where practical.



- Investigate access improvements to facilitate management across the plan area with possible forest road linkage between Auchineden & Auchentorlie sub-blocks.

### **Dumbarton Muir & Saughen Braes.**

- Continue to manage as a remote upland landscape of open habitats & occasional peat fringe woodland.
- Continue peat restoration to connect & enhance existing priority habitats.
- Control deer populations & gradually remove deer fencing.
- Protect & maintain the John Muir Way.
- Protect heritage features & carry out agreed management to protect nationally important conservation sites, namely Dumbarton Muir & Lily Loch SSSIs.
- Review existing riparian woodlands & explore opportunities for longer term expansion.

### **Kilpatrick Braes & Cochno Hill - upper slopes & summits.**

Recognising the value of this zone for landscape & recreation we will use minimum intervention management:

1. Summits & higher slopes will be left as successional open & scrub habitats;
2. Lower slopes left as low density native woodland habitat.

### **Kilpatrick Braes, Cochno Hill & Old Kilpatrick - lower slopes.**

Recognising the value of this zone for landscape, recreation, heritage & conservation we will:

- Retain existing woodlands under lower intensity management systems.
- Tree species composition will be primarily native with some mixed LEPO stands, & alternative conifers.
- Except for the removal of Larch, LEPO stands will be managed through minimum intervention.
- Minor access facilities will be installed to allow thinning of alternative conifers for their long term stability.
- The 'Antonine Wall' & its immediate setting will continue to be managed in compliance with the WHS management plan.
- Visitor services infrastructure will be maintained &, where budgets allow, enhanced.

### **Whole plan area - Windblow & Larch.**

The 10 year plan of operations will aim to:

- Restructure remaining mature conifer plantations with spreading windblow.
- Manage the threat of Phytophthora ramorum by removing mature larch & securing access to pre-commercial larch stands.



(A proportion of mature conifer areas, without Larch, will be retained as long-term retentions to improve age class diversity & for conservation)

### Whole plan area - Deer Management

The deer management plan's objective is to regulate browsing levels to ensure regeneration of forest stands. Current control levels will be reviewed & adjusted annually based on deer population and tree condition surveys. Deer fencing will be removed to allow more active deer control operations to progress.

### Woodland management in visitor zones map

Visitor Zones have been identified in areas where FLS encourage and manage access or where the woodland managed by FLS interacts with popular visitor sites or access routes. They are identified on this map as 'Interactive Zones' located along well-used path networks and extend ~15 metres on both sides of the path (Total ~30 metres wide). In these zones, single trees or small groups of trees will be removed when necessary to protect facilities, infrastructure and trails, or to enhance the setting of features, or maintain existing views.

Woodland in these zones will also be thinned, or trees re-spaced, for safety reasons (including to increase visibility to ensure that sites are welcoming and feel safe) and where it is necessary to enhance the experience of the forest setting, through the development of large trees, or preferential removal of trees to favour a particular species.

This map also identifies woodland further away from well-used path networks that provides a mid-ground setting and we may thin these stands for amenity purposes where resources allow. They are coloured green on the map and also shown in the 10 year thinning plan.

Long distance path into Merkins from the north via John Muir Way and associated core path.

In addition to paths shown on this map there are hundreds of informal desire lines that evolve as visitors explore different parts of the forest.

Open water bodies within and bordering the plan provide an attractive setting for visitors and have many bankside trails. They support a range of informal activities including fishing clubs and outdoor education.

Core path access from the west through Lang Craigs Woodland Trust site.

High usage core path access from the south follows a steep a track up the Kilpatrick Braes with multiple route options at the top of the braes.



Long distance core path to Duncolm hill, the highest point in plan with excellent views across the Kilpatrick Hills.

The John Muir Way travels northwards into Merkins Plantation, a quieter part of the plan with attractive views northwards to Loch Lomond National Park.

Eastern access follows the John Muir Way passing Edenmill Farm and then to a circular walk around Burncrooks reservoir.

Eastern access leads to central areas of Auchineden plantation with multiple long distance route options.

High usage core path access from the south with multiple route options at the Reservoirs.