Forestry and Land Scotland
Coilltearachd agus Fearann Alba

Text Annotations Within Maps

Map 1a - plan location:

Callendar Wood main entrance, Kemper Avenue, FK1 1UQ. Grid Ref: NS 8874 7920

Map 2 – analysis of sensitivities, constraints & opportunities:

Callendar Wood is a highly valued urban green space with multiple path networks through a variety of woodland landscapes. The site continues to have high potential for informal recreation & community based activities but anti-social behaviour is a growing concern for both visitors & local communities.
In order to encourage community activity & informal use of the site we could build on partnership working to help identify & disrupt anti-social behaviour, promote responsible access & help improve crime reporting information for visitors.

Spruce & Western hemlock continue to regenerate in native woodland stands at the expense o native plant species. Spruce & Larch are highly susceptible to strategically important forest pests & diseases.
We have a narrow window of opportunity to reduce plant health risks within Callendar Wood. Removing main concentrations of these higher risk species would allow a transition to principally broadleaved woodland with a small component of resilient ornamental conifers more compatible with the woodland's semi-natural qualities.

The majority of the site (~76ha) has been identified as ancient woodland but native & semi-natural characteristics vary significantly due to the woodland's complex history.
Opportunity to employ low intensity management in woodland zones with a high degree of semi-naturalness. We could limit work in these zones to removal of invasive non-native species & small-scale planting to regenerate the existing native woodland. In surrounding zones, long-term management & species choice should be sympathetic to ancient woodland features & encourage a multi-layered woodland structure.

Callendar Wood is part of the wider designed landscape of 'Callendar Park', a nationally recognised parkland landscape of high artistic, architectural & scenic value. The mixed woodland composition enhances its 'policy' character & stems from its diverse management history. Large ornamental & specimen trees can frequently be seen throughout the woodland.
Opportunity to preserve the designed qualities of the woodland by promoting a future generation of large ornamental & specimen trees. The majority of the plan is proposed as native woodland but there's opportunity to maintain a minor component of ornamental conifers & broadleaves in some zones for structural & seasonal diversity.

Pointing to Antonine Wall: The 'Antonine Wall' world heritage site confirms the areas' long settlement history & draws in visitors to both Callendar Park & Callendar Wood.

Pointing to young woodland areas: Regeneration of young woodland has been challenging & recent native planting is struggling to establish due to competition from bracken.

Pointing to Mausoleum: Opportunity to improve path-side visibility of the Mausoleum by removing large spruce trees overshadowing this monument.

Pointing to Henry's Hill: Opportunity to expand the species rich meadow to other grassland on Henry's Hill.

Map 3 – ten year proposals

Main Message: Due to an increased threat from plant pests & disease we're accelerating the transition to primarily native broadleaved woodland. We are therefore proposing to remove the main concentrations of high risk species (spruce & larch) in one intervention (light blue areas). After this, we'll revert back to our intended approach of low intensity management.
During the operations proposed on this map, where feasibly safe to achieve, we intend to:

1. retain public access provision
2. retain semi-natural features such as deadwood, natural regeneration & veteran trees
3. protect historical features

Open habitat management

We'll continue conservation management of this lowland meadow & seek to enhance specie richness in remaining grassland on Henry's Hill.

Plant Health Felling:

We propose felling operations to progress the removal of spruce, larch & hemlock which are:

1. vulnerable to strategically important forest pests & diseases,
2. incompatible with conservation objectives for the woodland.

The proposed felling work would be completed in one operation to minimise disruption to the public & promptly reduce plant health risks within the forest.
Our intention is to retain other tree species present in these zones but some removal will be required to facilitate safe operational access.

Transition to mixed broadleaves following plant health felling

Once we've completed plant health felling operations we'll regenerate these zones with principally native mixed broadleaves. We'll do this by managing natural regeneration & carrying ou supplemental planting. The future woodland composition is shown on draft 'Future Concept' & 'Future Species' maps.

Plant Health Felling: Large dying spruce removal in east of plan

These large spruce trees are in poor health so will need to be removed for plant health & future safety reasons. We'll try to retain surrounding oak but some will be removed to facilitate safe access. We'll undertake an ecological survey prior to the operation (standard pre-operational planning).

Plant health felling in mixed conifer stands in west of plan: Retain light overstorey

Retain some mature Scots Pine in overstorey.

Plant health felling in mixed conifer stands in south-east of plan: Retain light overstorey

Retain some mature Scots Pine in overstorey.

Low intensity management of native woodland for conservation & amenity

These stands have high conservation value so will continue to be managed at low intensity.
Proposed operations:

1. control of invasive non-native species (INNS) - this will include localised selective thinning to remove invasive conifers
2. small-scale native woodland planting to supplement natural regeneration

Continuous cover broadleaf woodland for amenity, conservation & 'niche market' timber production

These are principally broadleaved stands with a conifer component that varies in proportion across the LMP area. We propose the following operations in this zone:

1. selective thinning to remove spruce, larch & hemlock & to promote good stem development for small-scale niche timber production
2. small-scale planting to regenerate the understorey & achieve the desired stand composition (see Future Species map)
3. control of invasive non-native species (INNS) such as Rhododendron

Forest road upgrade

In order to implement these proposals & ensure long term management access, we propose to upgrade one of the central forest roads to allow safe removal of harvested timber. We'll also install a number of operational crossing points to protect existing paths & allow management access to all forest stands. The forest road upgrade is shown on this map:
NOTE: The upgraded forest road will be restricted to operational access for FLS & non-motorised access for the public. Other motorised access will continue to be illegal without FLS permission. Crossing points will be sited closer to the time of operations & form part of 'Public Access Management Plans'

Map 4 – future concept

Longer Term Strategy For Callendar Wood

This map shows 'concepts zones' which detail the longer term strategy & intended woodlan design in each part of the plan. Our aim is to revert the majority of Callendar Wood back to nativ broadleaves but retain a small component of ornamental trees for seasonal & structural diversity. Due to an increased threat from several plant pests & diseases, our initial harvesting intervention will change the woodland environment by removing high risk species such as spruce & larch. After this, we intend to use lower intensity management to regenerate the woodland & maintain a more stable setting.

Main management considerations in all concept zones

Recognising the antiquity of this woodland, its value to local communities & diverse management history, we'll place a strong management focus on retention &, where practical, enhancement of:

1. wildlife & habitats
2. visitor access & management
3. historic assets (including designed landscapes)

Principally open habitat

We'll retain Henry's Hill as a species rich lowland meadow.

Principally native woodland for conservation & amenity

These areas of native oak woodland have a high degree of semi-naturalness. The management focus is to remove invasive non-native species & ensure successful woodland regeneration with native broadleaves. We'll carry out localised thinning where necessary to remove invasive conifers & implement small-scale planting with native species to supplement natural regeneration & help suppress bracken. Our aim is to improve woodland structure & encourage a more diverse woodland field layer.

Principally mixed broadleaves for amenity, conservation & small-scale production of 'niche market' timber

We aim to manage these zones, in the longer term, using continuous cover forestry systems for amenity, ornament & conservation. In the course of management, small quantities of timber will be produced for niche markets. We'll thin stands to favour good stem development, to remove spruce & larch, & to release veteran trees (both native & ornamental). The intended composition will be mixed broadleaved woodland with a minor component of alternative conifers tha complement the designed landscapes of Callendar Park. Where required, we'll undertake small-scale planting to supplement natural regeneration. We'll use native broadleaves with a small quantity of ornamental tree species already found in the woodland.

In relation to the above concept zone:

1. darker coloured conifers indicate where mainly Scots pine will be retained as a conifer component for ornament
2. lighter coloured conifers indicate where a mix of alternative conifers will be retained for ornament

Map 6 – recreation & path networks

Management focus for next plan:

We will continue to build on FLS's community & visitor management work of recent years & explore how best to add value to visitor appreciation & understanding of Callendar Wood.

We recognise that anti-social behaviour has increased so will:

1. continue to work with external partners to target ASB hotspots & highlight the need for

resources to control such activities
2. review forest signage to make it easier for forest users & residents to report crime & prohibited motorised access
3. continue interpretation & outreach work in local schools to foster ownership & responsible use of this woodland resource