



Forestry Commission Scotland
Coimisean na Coilltearachd Alba

A82 Management Strategy



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1. Purpose

The A82 Management Strategy (the Strategy) describes Forestry Commission Scotland's (FCS) approach to forestry operations on the National Forest Estate (NFE) immediately adjacent to the A82 between Glencoe and Inverness. The Strategy aims to:

- give an outline of the work required to inform key stakeholders and partnership working.
- aid widespread awareness and understanding of the operations required.
- outline the constraints and complexities that make this a significant challenge and undertaking.
- outline the approach to felling approval.
- raise stakeholders' awareness of the opportunity to comment during the Strategy consultation period.

2. Background to the A82 project

The A82 links Glasgow to Inverness through the West Highlands. The section between Glencoe (*Lochaber Forest District*) and Inverness (*Inverness, Ross & Skye FD*) is bordered by heavily forested steep slopes, many of which are part of the NFE. Planted in the 1920's & 1930's when the road was used considerably less than it is now, the trees on these slopes are now mature and the plantations at the stage where felling is required; much of the harvesting will be difficult and challenging due to the proximity of the trees to the A82.

The A82 project (the project) builds upon work carried out recently:

- 2008. Initial trial sites felled and extracted (harvested) adjacent to the A82 to help improve understanding of technical solutions required.
- 2009. Steep Ground Management Programme initiated combining several related areas of work – A82 felling, Slope Stability and Steep Ground Harvesting
- 2010. Initial proposals endorsed by the FCS.
- 2011. A82 Project Officer recruited and Outline Business Case for A82 project approved by FCS.

3. Project Objectives

The project has the following objectives:

- To efficiently deploy safe, cost-effective harvesting systems on "extreme" steep ground.
- To optimise timber value to minimise the overall cost of harvesting "extreme" steep ground.
- To secure and develop a skilled labour resource for steep ground working.



- To minimise any negative impact of NFE steep ground management of the A82 corridor on neighbours and stakeholders
- To minimise the risk of landslides, rock falls and wind-blow on ground in the scope of the project.

4. Context

Harvesting along much of the A82 corridor is exceptionally difficult because of the “extreme” steepness of the slopes and the size of the trees. This harvesting work **is beyond the technical capability of existing resources and** requires specialist operations out with the scope of normal harvesting operations.

This is compounded by the obligation on FCS to ensure safety on the A82 and also to ensure the workforce who will carry out the harvesting meet all H&S requirements. Harvesting will have to be carried out under some form of traffic management, the extent and type of which will have a significant influence on the duration of the project.

Additional factors that are beyond our control include:

- wind blow events,
- geotechnical hazards,
- forest diseases and pests,
- major infrastructure projects led by other organisations and
- weather events

Responding to any one of these will require a flexible approach that may change the priority of our working pattern.

Estimates suggest that the work could take a minimum of 10 years.

5. The Operational Plan

We plan to progress from less challenging to more difficult sites as our skills and knowledge increase. Site complexity has been graded according to area risk analysis (tree size, proximity to the road, steepness and stability of slope). This helps to identify areas where management options are restricted and other areas where we have greater flexibility to choose from a selection of management regimes.

6. Guiding Principles

There are a number of guiding principles that we will apply:

- Reduce risk and prioritise Health and Safety
- Seek to minimise disruption to the A82 road users
- Maximise opportunity for coordinated approach and maintain flexibility.
- Keep people informed
- Maintain sustainable forest management.



6.1 Reduce risk and prioritise health and safety

Key hazards that we need to consider for health and safety of workers and road users are:

- **The ground is very steep:** The harvesting of steep ground is amongst the most challenging to manage and requires specialist machinery. It is labour intensive, complex and carries a greater degree of health and safety risk to those carrying out the work. The implication is that this will take longer than a 'business as usual' approach to harvesting.
- **There are some areas of unstable ground:** Some of the slopes in the A82 corridor have extreme gradients and terrain (50%+), specifically along Loch Ness side where, although they are generally stable there are many loose stones and boulders which could be set in motion during a harvesting operation. These threaten the A82 road.
- **The slopes are formed from rocky crags in some areas:** this means that machinery cannot be easily moved around and harvesting is more complicated and takes longer.
- **The trees are larger and heavier than in a normal harvesting operation:** the most common species along the A82 is Sitka spruce but many of the more fertile slopes, particularly along Loch Ness side, have been planted with Douglas fir, many of which are very large - up to ten tonnes in weight.
- **Equipment may fail during operations:** this could cause one or more felled trees to slip down the slope and onto the A82. While this is unlikely, Forestry Commission Scotland will not undertake any operation where there is this risk and the road is in use.
- **The risk to public health & safety also extends to those who use the forest for recreation:** although the direct impact on tourism and recreation is likely to be minimal, the Great Glen Way (GGW) passes through some of the project area. We will use its operational planning procedure to ensure that these difficult sites are managed to minimise risk to the public, staff and contractors.

6.2 Minimise impact on the A82 road users.

We recognise the need to manage the level of impact of the operations on the public and businesses as far as is reasonably practicable.

The road carries a considerable amount of traffic particularly during the tourist season although daily traffic is generally confined to "working hours". Traffic management work will be co-ordinated by Transport Scotland but we will endeavour to minimise disruption by:

- Ensuring that we use the most 'site-appropriate' harvesting technique
- carrying out as many simultaneous operations as is safely possible to minimise the use of separate traffic lights.
- surveying areas at risk with a view to managing flooding and landslide risks



(This will be done in conjunction with the related FC Slope Stability Project and Transport Scotland's own monitoring programme).

We will also maintain and enhance local recreation resources and core paths, like the GGW, informing people of any impact and, where possible, offering diversions and alternative facilities.

6.3 Maximise opportunity and maintain flexibility

Due to the constraints on planning (as stated in section 4), we will adopt a more flexible approach to our operations:

- Operations will include the gradual felling of exotic conifers along sections of the A82 corridor; native woodland will be restored in some areas though conifers will be replanted where appropriate. The strategic approach will be assessed against regulatory requirements and will be subject to standard public consultation through the Forest Design Plan Process.
- Where possible, approval for felling licences via amendments or revisions will be sought one to two years' in advance for each specific area of clearfell within the project. Areas outwith the A82 project area will be approved for felling through the standard Forest Design Plan process.
- Planning approval for related road infrastructure will be sought as the project advances and the requirements more clearly identified.

6.4 Keep people informed

FCS will keep people informed through open and regular communications throughout the life of the project:

- The Strategy will provide the means to communicate to stakeholders and partners at a strategic level, our harvesting and restocking plans for the A82 corridor. It does not replace the Forest Design Plans currently covering the Great Glen; these will continue to be used and revised as they are now.
- A simple approach to communications will ensure key stakeholders and local communities are kept fully apprised throughout. Communications methods will include
 - Public "drop in" meetings
 - Community Council meetings
 - Local press and public notices.
 - Posting updates on the FCS and our partner's websites, our twitter account
 - Local and national radio announcements.



- We will use the Strategy and the Forest Design Plan process to provide information on a landscape scale but will engage with local communities and businesses in advance of works that will have a more localised impact.

6.5 Maintain sustainable forest management.

Highland & Islands Conservancy are part of FCS and carry out regulatory and grant support functions. They will ensure that the Strategy complies with regulations and promotes sustainable forestry whilst balancing the needs of timber production with those of landscape, biodiversity and people.

All operations will comply with the UK Forestry Standard (2011) and the UK Woodland Assurance Standard.

7. Benefits of the Project

This Strategy outlines the benefits of the delivery of this project. These include:

- A reduction in the risk of a major landslide, rock fall or wind-blow event disrupting public use of the A82. This is a managed solution to a known problem and will have a positive impact on our neighbours and stakeholders against the negative impact of not taking action.
- Areas of the Great Glen that have not been actively managed in the past because of operational constraints will be brought into full management. This will include the redesign of key areas of the forest to improve long term resilience of the A82 corridor.
- Across the forestry sector, increase levels of specialist knowledge and expertise for working on difficult terrain.



8. Next Steps

The strategy will be revised, if necessary, following any comments received from stakeholders during the consultation exercise which will take place over June and early July 2012.

A copy of the final document will be placed on the FCS A82 Operations web pages in advance of local communications with communities and businesses.

Further information on the A82 Project can be found on:

Website:

www.forestry.gov.uk/A82operations

Twitter pages:

<http://twitter.com/A82operations>



Appendix 1

In operational terms the planned work falls into four distinct categories which impact to varying degrees on road traffic, the categories are:

- **Fell to Recycle (FTR):** This method will be used on areas of small, young crops where trees will be harvested whole and then chipped or felled and left in the forest to decompose naturally. This work will be done by both chainsaw and by mechanical methods. The work immediately next to the A82 will need to be carried out under traffic management as there is the risk of a tree being felled onto the road.
- **Conventional Harvesting:** These areas are within the capability of existing harvesting systems, machinery and teams. Less steep slopes can be worked by harvester and forwarder teams using “wheeled” machines. This will require frequent but brief ‘red to red’ traffic control to safeguard road users whilst trees are being felled. Steeper slopes will be worked by skyline winch and chainsaw teams. Skyline winch operations carry a higher risk of equipment failure and this work can only be carried out while all traffic on the A82 below the work area has been stopped.
- **Non-conventional Harvesting:** Sites classed as “extreme” due to the steepness of slope and the large size of the trees, will be worked by highly skilled chainsaw operators (who fell the trees) and winch teams (who take the tree to the forest road) using specialised equipment that is not currently available. This is high risk work - for the teams and to users of the A82 – and both felling and extraction will have to be done while all traffic on the A82 below the work area has been stopped.
- **Civil Engineering:** A considerable amount of civil engineering work is required to facilitate the harvesting. This will involve strengthening the forest road, improving forest entrances, replacing bridges, upgrading forest roads and establishing tracks and stacking bays. Much of this work can be completed without any impact on the A82 but some cannot and risks dislodging debris onto the A82. Limited road traffic management may be required to complete these works.