



Managing public safety on forestry work sites

Practice Note

June 2018

Northern Ireland's forests are used by many people. Apart from producing timber and other economic benefits they are also used extensively for public recreation. There was an estimated 4.7 million visits to our forests in 2014. This highlights the significant risk of the public interfacing with forestry operations. Everyone involved in forestry work has health and safety duties and responsibilities. This Practice Note provides guidance to help landowners, forest managers and forestry practitioners manage public safety on harvesting sites. Forest operations are high-risk activities, and the management issues involved in harvesting and hauling timber while maintaining public access to forests and woodlands can be complex. There are a number of tasks that have to be undertaken – both during planning and while carrying out operations – to ensure that people's health and safety is not put at risk. This Note sets out the different roles and responsibilities for managing public safety to ensure that activities on and around harvesting work sites are co-ordinated and the right tasks are carried out by the right people. It provides information and advice on suitable control measures and illustrates good practice through the use of scenarios. This guidance can also be applied to non harvesting operations where the public are at risk.

Introduction

Forests and woodlands are places where people can enjoy the outdoors and they play an important role in public health and well-being. There has been a steady increase in numbers of recreational users in recent years and their demands on forests and woodlands for leisure and sports activities. Forest managers are encouraged to maintain and improve access to woodlands and the responsibilities of both managers and visitors are now covered by legislation. The Forestry Act (NI) 2010 gives the public right of access on foot, to all Forest Service land for purposes of recreation with some exclusions such as buildings, structures and worksites.

However, while maintaining and improving access is important, it should be recognised that forest environments can present a range of hazards that could put visitors at risk. This is particularly the case in areas where trees are being felled with harvesting machinery. The Health and Safety at Work (NI) Order (1978) places a duty on employers and the self-employed to ensure, so far as is reasonably practicable, that their work does not affect the health and safety of others. This legislation takes precedence over access legislation when considering safe working practices.

Managing public safety is the responsibility of everyone involved in forestry work and it is a requirement of the UK Forestry Standard (UKFS) that all those involved are familiar with and follow industry standard health and safety guidance on managing public safety. The guidance in this Practice Note is more relevant than ever given the increasing numbers of visitors to forests, as well as the development of new and improved recreation facilities managed by operating partners such as local Councils, through legal arrangements with Forest Service.

The good practice it sets out on managing responsible and safe access to forests and woodlands remains an essential resource for all landowners and managers of work activities taking place in forests.

Scope

This Note deals with the practical measures that need to be put in place by both managers and operational staff to control risks to public safety during harvesting operations although the principles can be applied to any work activity. It provides advice on the selection and provision of suitable control measures and sets out roles and responsibilities. Landowners and managers must plan and co-ordinate control measures, but operators on the site are required to implement them during forest operations. The guidance should be read and understood in conjunction with the FISA booklet *Managing health and safety in forestry* (see Useful sources of information).

Although this note uses examples based on harvesting activities, the principles can be applied to other operations such as mechanical weeding, civil engineering, chemical spraying and ground preparation operations.

Definitions

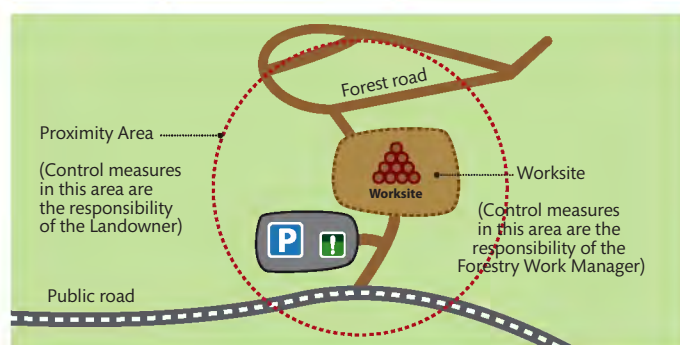
Definitions of the key roles and work areas that are used throughout this Practice Note are set out in Tables 1 and 2.

Table 1 Roles and responsibilities.

Role	Definition	Examples
Landowner	The person in control of the land on which forestry work takes place.	<ul style="list-style-type: none"> Timber growers such as estate owners or farmers. Forest Service or other public bodies such as the Crown Estate and local authorities. Forestry management companies and land agents working on behalf of landowners.
Forestry Work Manager	The person who commissions work on a forestry site.	<ul style="list-style-type: none"> Any landowner directly engaging forestry contractors as part of their business. Timber purchasers, e.g. merchants, processors or contractors.
Operators	People working on a forestry site.	<ul style="list-style-type: none"> Employees Contractors Sub-contractors
Banksmen	Persons required at access points to re-direct or warn the public to ensure their safety.	<ul style="list-style-type: none"> Employees Contractors Sub-contractors

Table 2 Definitions of work areas (see diagram below).

Work area	Definition	Notes
Proximity area	An area surrounding or adjacent to a Worksite.	May include access from public roads, car parks and walking/cycling trails.
Worksite	An area where harvesting or other treework is currently being carried out.	Examples include areas where manual felling, mechanised harvesting and timber stacking take place.
Haulage routes	Specified routes into/out of the Worksite.	Should be identified on the operational/site plan.



Control measures

There are two questions to consider when selecting suitable control measures to use in a forest where harvesting operations are being carried out:

- Are there public access routes leading directly onto the Worksite with no possible diversions?
- Can people continue to use access routes, because they can be diverted away from, or around, the Worksite?

The control measures selected should be based on an analysis of the combined risk assessments of the Landowner and the Forestry Work Manager, who must decide whether to:

- Close all facilities within the Proximity area and provide advice on alternatives.
- Divert people onto alternative routes away from the Worksite.

Disruption to both forest operations and public access can be minimised by planned closures or diversions of a minimum duration. This can be achieved by:

- Altering the timing of work, for example by selecting a less busy period (e.g. during the winter).
- Restricting weekend working and allowing access to the woodland at weekends, for example, by concentrating effort to reduce time spent on site.

Information and signage

Landowners and Forestry Work Managers should consider providing information on closures and diversions to the local community and visitors. For example, through websites, local newspapers and other media and/or social channels (example wording for a website/press release is given in Box 3).

Information should also be provided to visitors via appropriate site signage. This will be in the form of:

- **Information signage** – used to inform visitors of the control measures in place and, if available, alternative access options.
- **Statutory safety signage** – used to warn visitors of forest operations or prohibit them from certain areas.

It may also be necessary to use barriers to prevent access and/or employ banksmen.

Box 3 Example wording for a press release or website.

FOREST WALK CLOSURE

The Red forest trail in **Spruce Tree Forest Park** (grid reference: H123456) will be closed for the next two months.

It is necessary to close the walk for safety purposes as tree felling and timber extraction will be carried out in the Parkmore area. Visitors should obey all safety signs and not enter any work area.

The River Walk is unaffected by the work and will remain open.

Forest Service would like to thank everyone for their co-operation and apologise for any inconvenience.

For further information contact:

A N Other at "Forest Office"

Telephone: 02812 123456

Email: an.other@forestoffice.co.uk

Information signage

It is helpful to give forest visitors added information to help them make alternative arrangements. Box 4 gives examples of templates for information signage used by the Forest Service on the public forest estate.

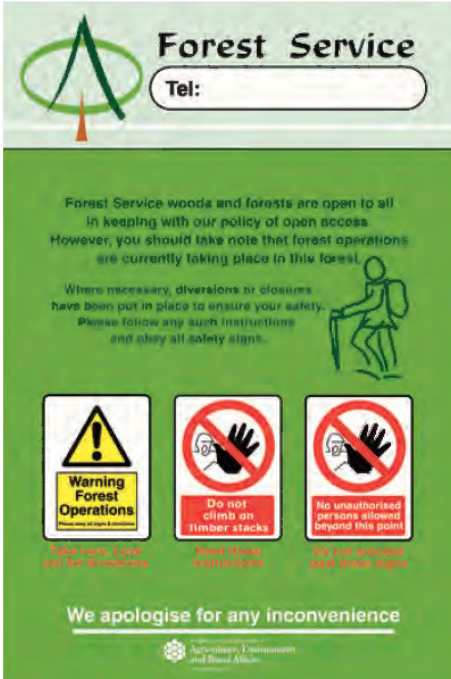
Box 4 Example trail closure and diversion signs.



Statutory safety signage

Threshold signs (Figure 1) should be erected at all known access points to the proximity zone informing the public about the work and advising them of the need to comply with all warning, prohibition and diversion signs. These could be placed next to the public road at some distance from the Worksite.

Figure 1 Threshold sign.



Warning signs (Figure 2) give warning of a hazard or danger and should conform to the Health and Safety (Safety Signs and Signals) Regulations (NI)1996 (specific meaning: *be careful, be aware and comply with any further instructions*).

Figure 2 Warning sign.



Prohibition signs (Figure 3) prohibit behaviour likely to increase or cause danger (e.g. No entry, No climbing on timber stacks). They should conform to The Health and Safety (Safety Signs and Signals) (NI) Regulations 1996 (specific meaning: *you must not ...*).

Figure 3 Prohibition signs.



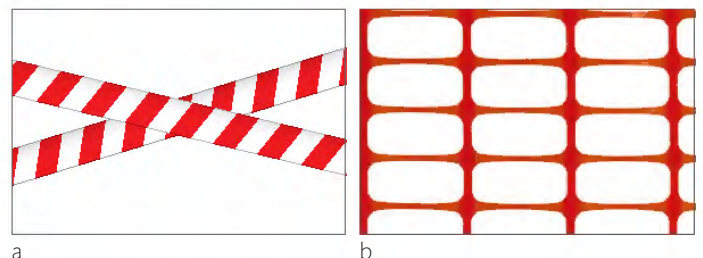
Barriers

Barrier tape (Figure 4a) can be used as a temporary physical measure in conjunction with warning and prohibition signs to provide additional warning to members of the public.

Plastic netting (Figure 4b) can be used as a temporary barrier across forest roads and footpaths to prohibit entry. It should be used in conjunction with other controls such as warning and prohibition signs. Barriers should be replaced after authorised entry and exit and easily moved in emergencies.

Semi-permanent barriers, such as those on construction sites to prevent entry to the entire site, are not reasonably practicable for most forestry operations.

Figure 4 Temporary barriers: (a) tape (b) plastic netting.



Banksmen

In areas where signage and temporary barriers do not provide adequate control, a person may be required at each access point to re-direct or warn visitors to ensure their safety. Banksmen should maintain effective contact with the Operator(s).

Information for operators

Competent Operators should be selected and briefed on site-specific safety rules and any potential public pressure. They should be instructed to:

- Watch out for members of the public on the worksite.
- Stop work immediately if any risk zone is breached.
- Inform the Forestry Work Manager of breaches to risk zones that require remedial action.

Responsibilities

The responsibility for implementing the control measures will depend on whether:

- The timber has been sold standing by the Landowner, so the purchaser or his/her agent is the Forestry Work Manager.
- The Landowner is also the Forestry Work Manager, that is, the commissioner of harvesting operations on the Worksite.

Standing sales Worksite

On Standing sales Worksites, the duties of the Landowner and the Forestry Work Manager are shared.

The Landowner is responsible for:

- Identifying recreational facilities that are likely to have an impact on Worksite operations on the site plan.
- Using the results of risk assessment to:
 - Identify the boundaries of the Worksite on the site plan, including any known hazards and points of access which cross the boundary.
 - Decide whether any recreational facility (e.g. car park, walk, cycle route, bridleway) should be closed.
 - Provide information to visitors through appropriate media (e.g. websites or press announcements).
 - Identify the best location for threshold signs.
 - Identify the best location for diversion signs.
 - Identify and locate warning and prohibition signs on access points leading to the Worksite.
 - Develop a maintenance plan for the signage.

- Providing the Forestry Work Manager with:
 - Information on the expected level of use of the forest or woodland by members of the public.
 - A copy of the operational/site plan.
- Meeting with the Forestry Work Manager (or his/her agent) to:
 - Discuss the operational/site plan.
 - Select the optimum timing of work.
 - Inform them of any restrictions on weekend working.

The Forestry Work Manager is responsible for:

- Using information from the operational/site plan and the site meeting to create a risk assessment. This should identify the entrances to the Worksite where warning and prohibition signs should be erected, relative to the progress of work.
- Supplying and erecting warning and prohibition signs at entrances to the Worksite.
- Maintaining warning and prohibition signs.

Landowner Worksite

On Worksites where operations are carried out by the Landowner, using employees or contractors, the Landowner is responsible for the duties of both the Landowner and the Forestry Work Manager. In this case the Landowner is responsible for deciding the type and location of all control measures to protect the safety of members of the public. The Landowner is also responsible for erecting, maintaining and monitoring the effectiveness of the controls (Figure 5).

In all circumstances the person commissioning the haulage picks up the Forestry Works Manager role for the activity of timber haulage

Figure 5 Prohibition signs such as this one next to a timber stack, are the responsibility of the Landowner on Landowner-worksites.



Managing control measures

The active management of signage is essential to ensure that members of the public are accurately informed of any action that is expected of them.

Warning and prohibition signs are only effective if they are maintained and re-sited as work progresses to ensure that they are always clearly visible and appropriately positioned.

Signs should be placed as close to the hazard as possible, taking account of the risk, so that members of the public can associate signs with the hazard.

Signs lose their effectiveness if they are left in position when the harvesting activity has ceased or has been suspended. The person responsible for erecting the signs is responsible for ensuring that they are removed when operations are suspended or complete.

If there is a delay in harvesting activity, the site should be made safe and the prohibition signs should be removed. However, prohibition signs at stacks of timber should be left in place.

The person responsible for erecting the signs should also ensure that an effective inspection schedule is in place for all signage. The inspection schedule should ensure that:

- Operators on the Worksite check safety signs at the start of the workday.
- Safety signs are formally inspected at specified intervals, e.g. weekly.
- Safety signs are maintained or replaced as required, e.g. when damaged or missing.
- Prohibition signs are removed if work is suspended, e.g. if the contract specifies no weekend working.
- Signs are removed when the work on the site has been completed.
- When harvesting operations are complete and only timber stacks are left:
 - Stacking areas are adequately marked with at least a prohibition sign.
 - Hauliers manage their work activity by warning and excluding members of the public from their Worksite, e.g.

by supplying and erecting prohibition signs when loading timber (see Scenario 5).

Where the level of public pressure warrants it, consideration must be given to the type of barrier required. In many situations barrier tape will be sufficient. However, in areas where public pressure is high a more robust system may be necessary.

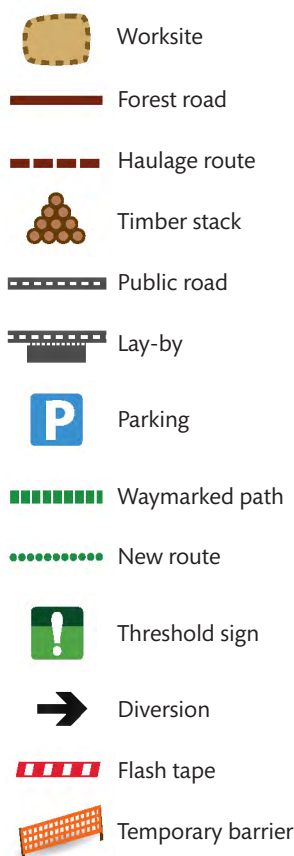
The controls set out above represent the minimum requirements. If the risk assessment indicates that additional controls are required they should be implemented, for example:

- Prohibition signs and barrier tape at timber stacks.
- Barrier tape or other physical barriers on roads and/or rides.
- Banksmen.

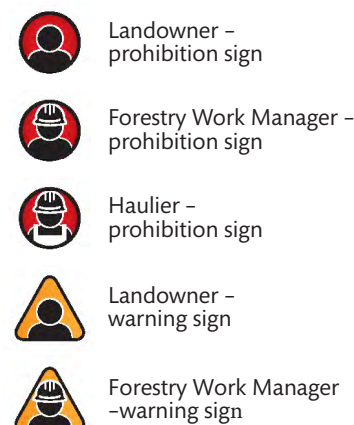
Example scenarios

Scenarios 1–5 show how control measures can be applied in practice. They are not exhaustive but suggest solutions that can be considered either in part or in combination. Each scenario is based on a Landowner selling standing timber to a timber purchaser, who takes on the role of Forestry Work Manager. The key below explains the symbols used in the scenarios.

Key to symbols



Key to signage responsibilities



Scenario 1

A **Landowner** has provided a car park close to the junction of a public road and a forest road. The car park is used by cyclists and walkers. The Landowner has also provided waymarked routes, which take both walkers and cyclists up a forest road. The forest road forks 3 km from the car park. This allows people to complete a 8 or 12 km loop back to the car park. There is also the opportunity for walkers and cyclists to continue on through the forest.

The Landowner has sold standing timber on a site 2 km up the right-hand fork of the forest road. The Forestry Work Manager (the purchaser) now intends to clearfell this site.



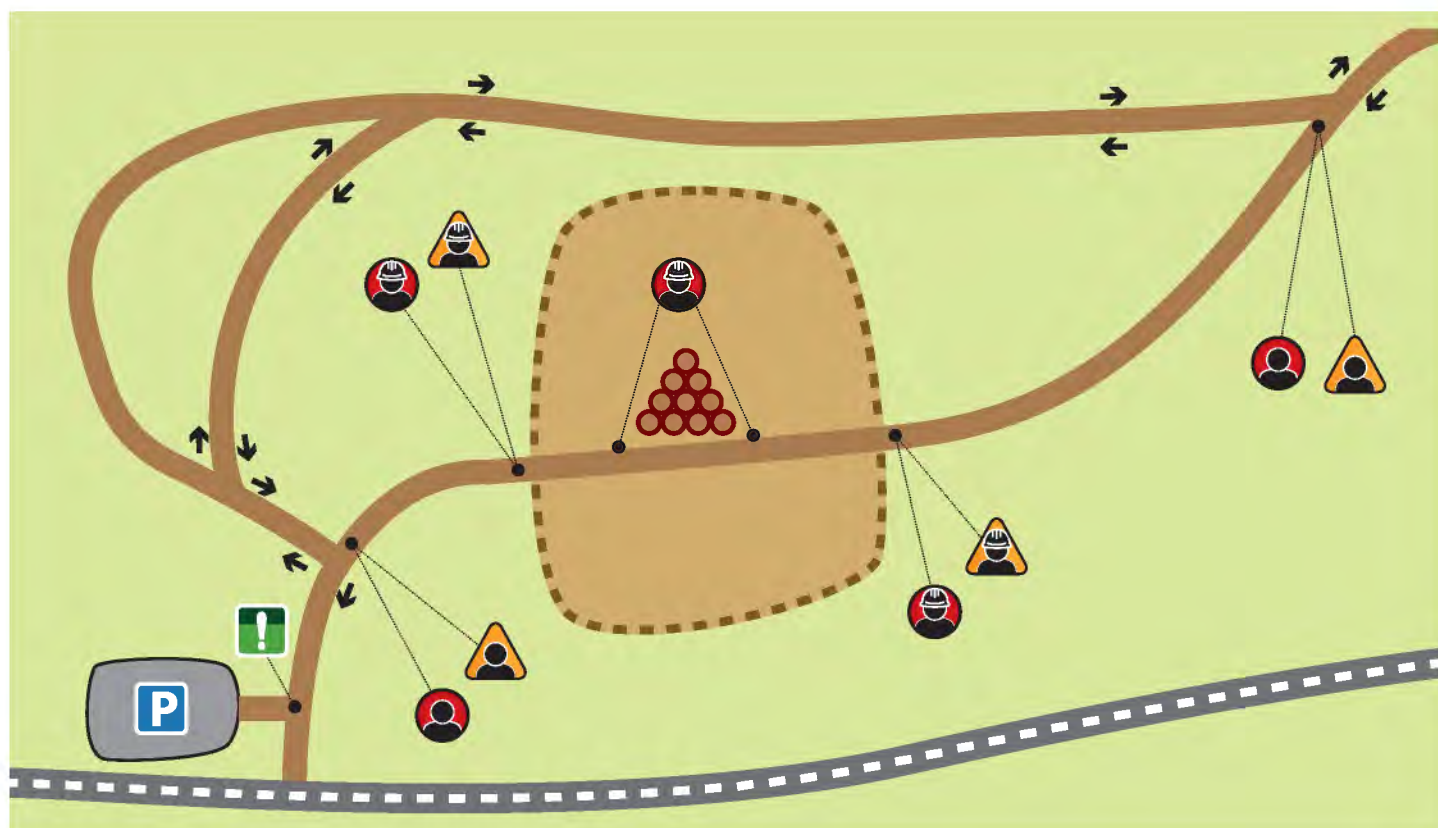
The Landowner should:

- Erect a threshold sign in the car park to provide information on forest operations and instruct members of the public:
 - to follow diversions.
 - not to approach machinery.
 - not to climb on timber stacks.
 - to obey safety signs.
- Erect warning and prohibition signs at the two forest road junctions leading to the worksite.
- Erect diversion signs away from the worksite.



The Forestry Work Manager should:

- Erect warning and prohibition signs at the two entrances to the worksite.
- Erect prohibition signs at timber stacks. "*Do not climb on timber stacks*"



Scenario 2

A **Landowner** has provided a car park at the junction of a public road and a forest road. The car park is used by cyclists and walkers. The Landowner has also provided a waymarked route, which takes both walkers and cyclists up a forest road. The forest road forks 3 km from the car park. This allows people to complete a 8 or 12 km loop back to the car park. There is also the opportunity for walkers and cyclists to continue on through the forest.

The Landowner has sold standing timber on a site 2 km up the forest road before the fork. The **Forestry Work Manager** (the purchaser) now intends to clearfell this site. There is no opportunity for the Landowner to divert members of the public using the car park.



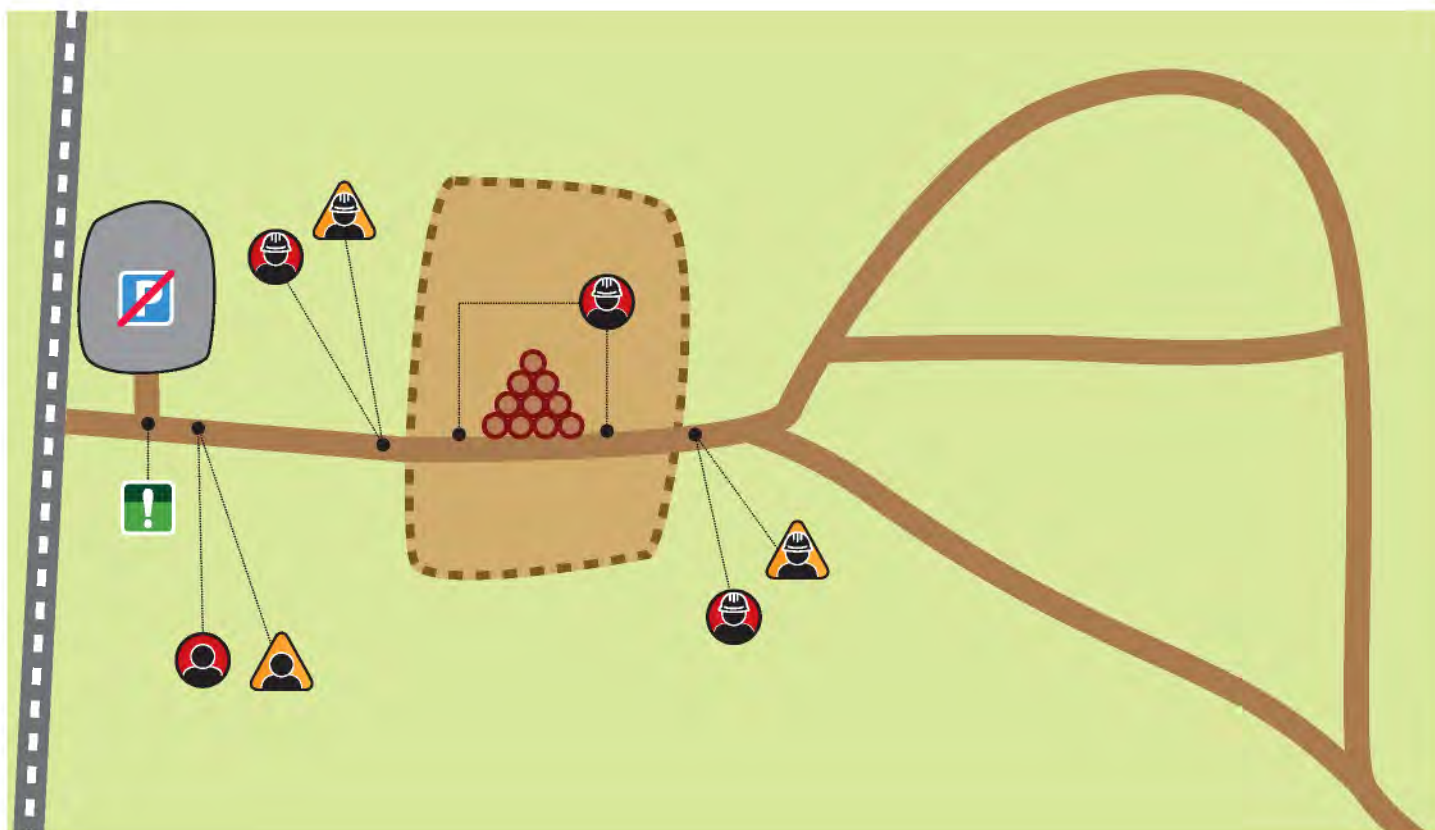
The Landowner should:

- Close the car park.
- Erect a threshold sign at the entrance to the forest to provide information on forest operations and instruct members of the public:
 - not to approach machinery.
 - not to climb on timber stacks.
 - to obey safety signs.
- Erect warning and prohibition signs on the forest road.



The Forestry Work Manager should:

- Erect warning and prohibition signs at the entrances to the worksite.
- Erect prohibition signs at timber stacks. *"Do not climb on timber stacks"*



Scenario 3

Scenario 3 is the same as Scenario 1 but with the added complication of a public road running adjacent to the worksite. A lay-by provided by the local council has been closed for the duration of the harvesting operations. The safety of members of the public using the public road will have to be considered in light of the chosen working method. This may include issues such as traffic control during the felling operation.



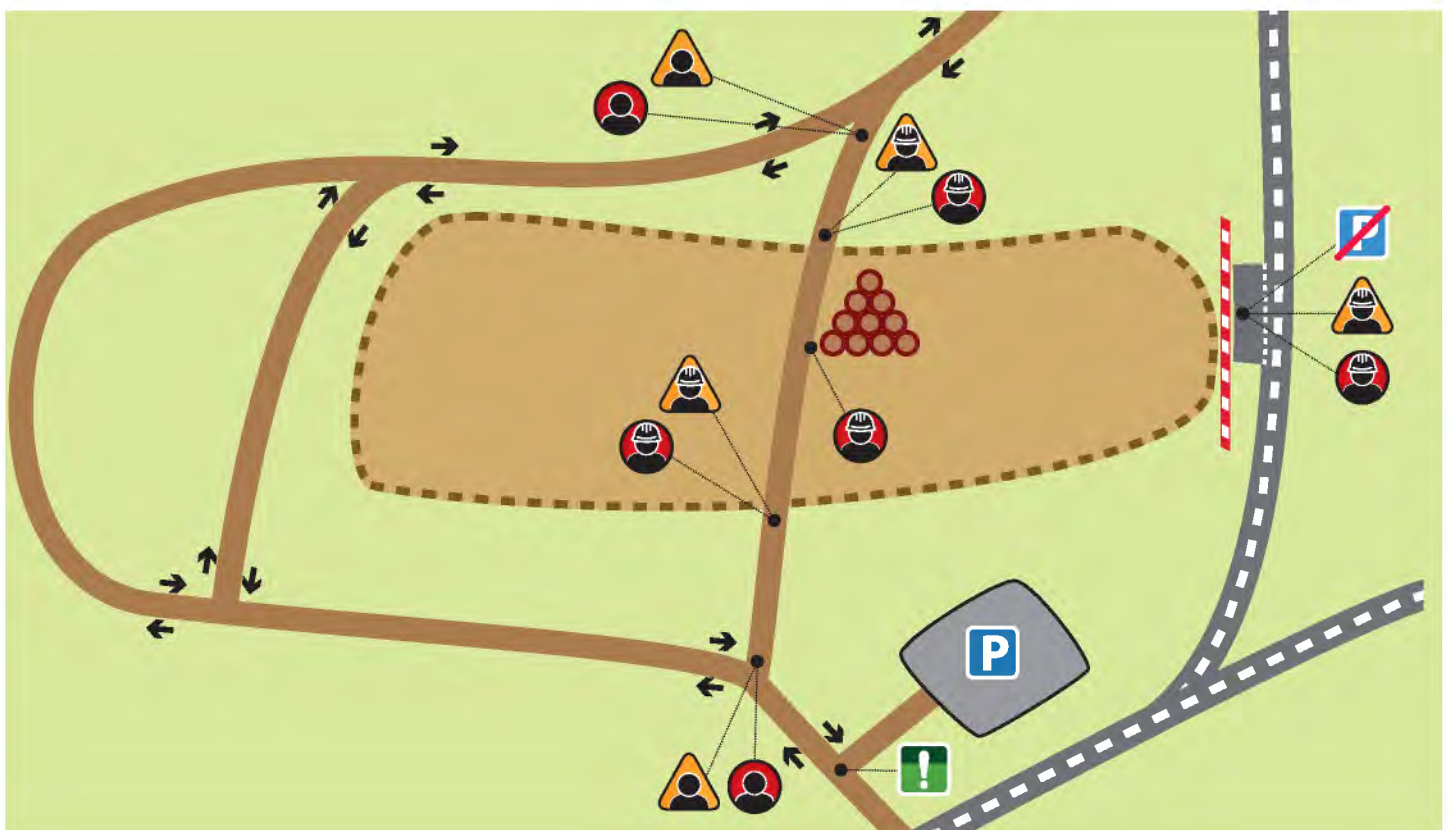
The Landowner should:

- Erect a threshold sign at the entrance to the forest to provide information on forest operations and instruct members of the public:
 - to follow diversions.
 - not to approach machinery.
 - not to climb on timber stacks.
 - to obey safety signs.
- Erect diversion signs away from the worksite.
- Erect warning and prohibition signs at the two forest road junctions leading to the worksite.
- Inform the Forestry Work Manager that it is likely that the public will still use the lay-by for access.



The Forestry Work Manager should:

- Erect warning and prohibition signs at the entrance to the worksite.
- Erect warning and prohibition signs at the access point from the lay-by.
- Use flash tape to provide a physical barrier. This should be placed approximately 5 m inside the forest along the length of the working area. As work progresses, the barrier tape should be moved through the site accordingly.
- Erect prohibition signs at timber stacks. "Do not climb on timber stacks"



Scenario 4

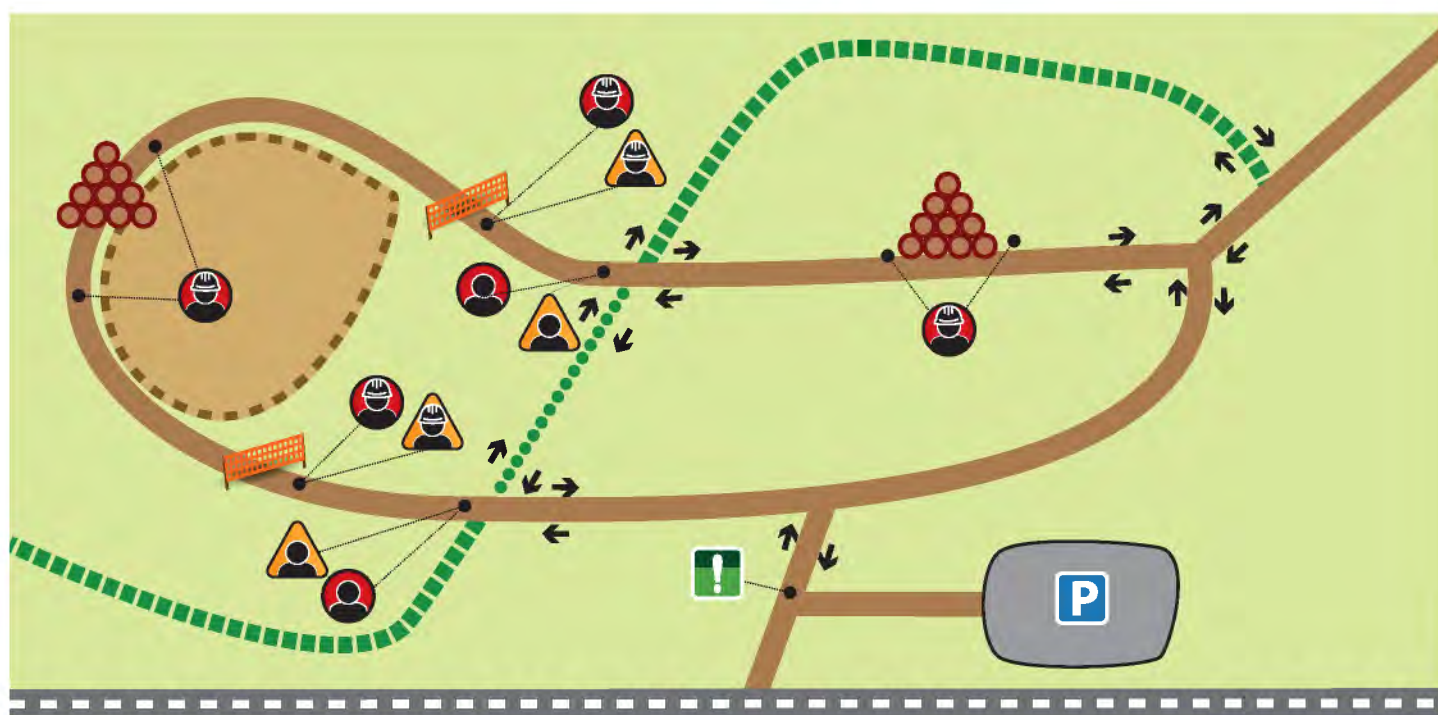
A **Landowner** has encouraged public access to a woodland close to an urban fringe by providing a car park adjacent to the public road. A waymarked route gives access to a viewpoint on open hill ground above the woodland boundary. The woodland is used by the local community throughout the week, but most heavily at the weekends. Because of the high demand for access, the Landowner has provided a new route to divert members of the public away from the harvesting site. The Landowner is also aware of informal access by local residents on foot.

The Landowner should:

- Provide information through appropriate media (e.g. website/press release) to advise visitors of the forest operations and the diversions.
- Erect a threshold sign at the entrance to the forest to provide information on forest operations and instruct members of the public:
 - to follow diversions.
 - not to approach machinery.
 - not to climb on timber stacks.
 - to obey safety signs
- Erect warning and prohibition signs at the two forest road junctions leading to the worksite.
- Erect diversion signs away from the worksite and on to the new path.
- Ensure the Forestry Work Manager is made aware of the diversion and the potential for high public usage.
- Restrict weekend working.

The Forestry Work Manager should:

- Erect warning and prohibition signs at the entrances to the worksite.
- Place a physical barrier across the entry and exit points to the worksite.
- Erect prohibition signs at timber stacks. "*Do not climb on timber stacks*"



Scenario 5

An extensive area of woodland has been harvested. All harvesting operations have been completed but there are several timber stacks awaiting uplift.



The Landowner should:

- Remove the warning and prohibition signs from the forest roads leading to the worksite.
- Ensure the threshold sign remains at the entrance to the forest.
- Remove all signs after all the timber has been uplifted.



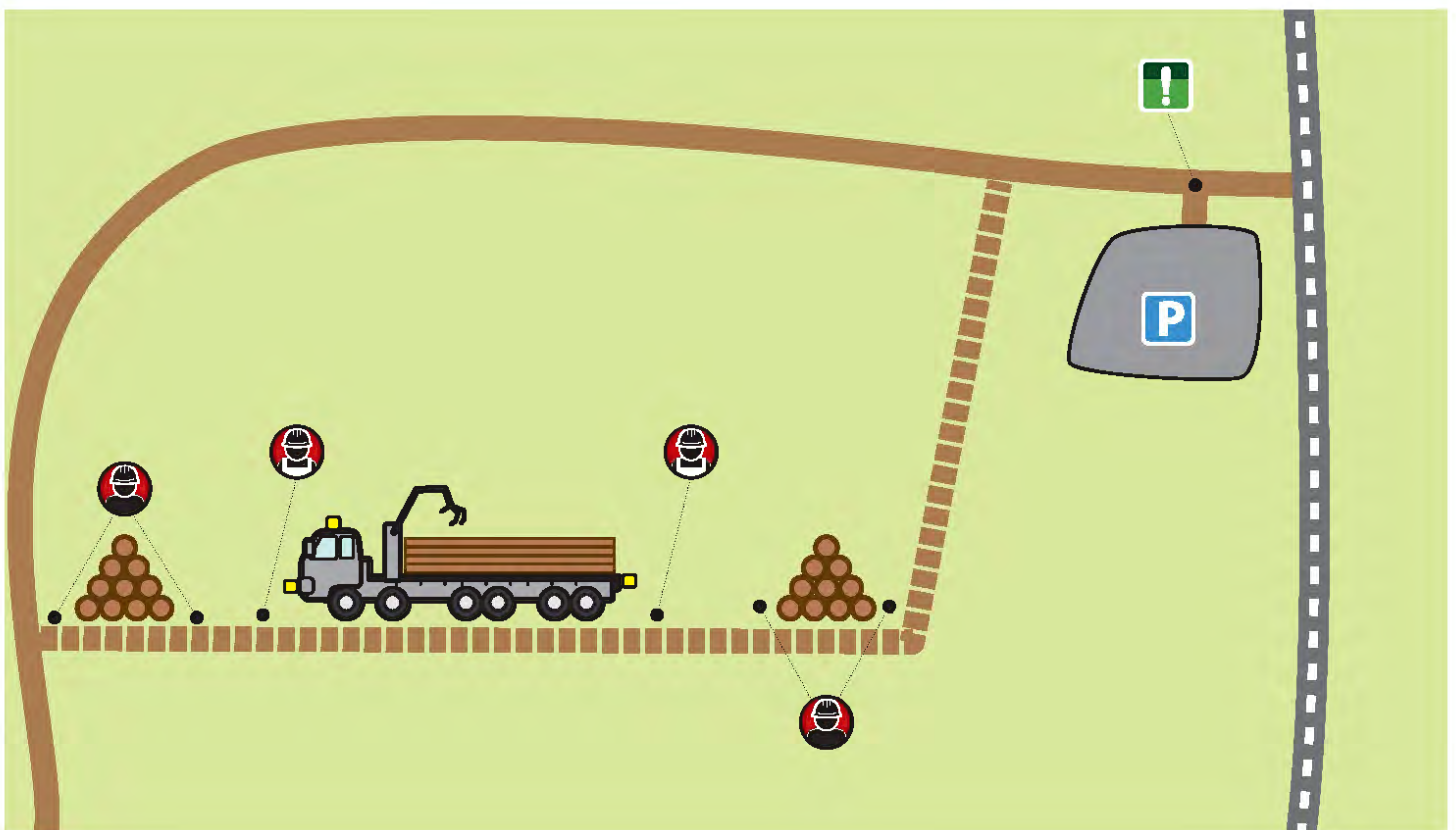
The Forestry Work Manager should:

- Remove the warning and prohibition signs from the worksite.
- Ensure prohibition signs ("*Do not climb on timber stacks*") remain in place at both ends of each timber stack
- Remove all signs after all the timber has been uplifted.



The Haulier uplifting the timber should:

- Manage their immediate worksite to ensure safety.
- Erect their own prohibition signs at either end of the loading area outside their risk zone to prevent access during the loading operations.
- Switch on hazard warning lights and warning hazard beacon if fitted.
- Remove their own signage after the loading operations have been completed.
- Example of Hauliers prohibition sign



Useful sources of information

Forestry Commission publications

The UK Forestry Standard

The UK Forestry Standard (UKFS) is the reference standard for sustainable forest management in the UK.

Other publications

Managing health and safety in forestry.

This booklet published by the Forest Industry Safety Accord (FISA) contains guidance to help employers, the self-employed and those in control of work in forestry and timber haulage meet their duties under the Management of Health and Safety at Work Regulations (NI) 2000.

Websites

www.hse.gov.uk/treework

For sector-specific information on health and safety to those involved in forestry and related industries.

www.hse.gov.uk/workplacetransport/safetysigns.

For information and resources on safety signage.

Visitor safety in the countryside group.

<http://vscg.org/>

General guidance on good principles and practice for landowners in managing visitor safety

Visiting and staying safe in the Forest

<https://www.nidirect.gov.uk/articles/stay-safe-and-be-responsible-public-forests>

General safety guidance for the general public as regards visiting the forest.

Forest Industry Safety Accord



This Practice Note has been endorsed by the Forest Industry Safety Accord (FISA) - a joint commitment from representatives of leading forest industry organisations to raise the standard of health and safety in their place of work.

For more information on FISA and to find out how to become a member, visit www.ukfisa.com.

Enquiries relating to this publication should be addressed to:

Customer Services
Forest Service HQ
Inishkeen house
Killyhevlin Ind. estate
Enniskillen BT74 4EJ
+44(0)2866 343 165
customer.forestservice@daera-ni.gov.uk
<https://www.daera-ni.gov.uk/topics/forestry>

This publication has been edited & reproduced by Forest Service for use in Northern Ireland with kind permission of the Forestry Commission GB