

# The **Timber Transport Toolkit:** Hauling timber on the public highway



Partnership approaches  
in timber haulage:  
collected experience

## Acknowledgements

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Draft for consultation

## **Foreword**

To be confirmed.

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## Introduction

Many millions of tonnes of timber are hauled each year in the UK. Hauling timber is an essential part of sustainable forest management, which delivers major economic, social and environmental benefits, including, employment, climate change mitigation, improved biodiversity, renewable fuel, enhanced air quality, flood mitigation, recreation and public health opportunities. The UK's forest industries directly support over 160,000 jobs and home-grown timber is especially valuable in terms of reducing "timber miles", by substituting for imports from around the world.

In some cases, timber haulage involves using roads that were not designed for traffic of this nature. The historical legacy of our road infrastructure is compounded by the fact that Councils have faced major pressure on roads' budgets over the two last decades, with under-funding in road maintenance a significant long-term issue. Councils have many competing demands on these diminished funds.

The timber supply chain functions on small margins. As with most other raw materials, the value in timber products is added much further down the chain. From harvesting to retailing the finished product, timber can increase in value 100-fold, or more. Timber haulage is an essential part of this process, delivering the raw material to this economic activity.

Experience has shown that, by working in partnership, the forest industry and the roads authorities can maintain an effective relationship and ensure that the needs of both are accommodated. A great deal of work has been done in building these partnerships and in developing tools to ensure that they are effective. This toolkit provides advice on how to develop these partnerships and on some of the tools available. It brings together experience from around the country to help provide insight, to stimulate discussion and foster innovation.

This document focuses on approaches that have been adopted, under the themes of Legal approaches; Partnership approaches; Pragmatic approaches and Technical approaches. A combination of distilled experience and illustrative case studies is used in each section.

### **Unbound Road Design Annex**

Accompanying this document is an Annex summarising the principles of forest road design.

It is entitled:

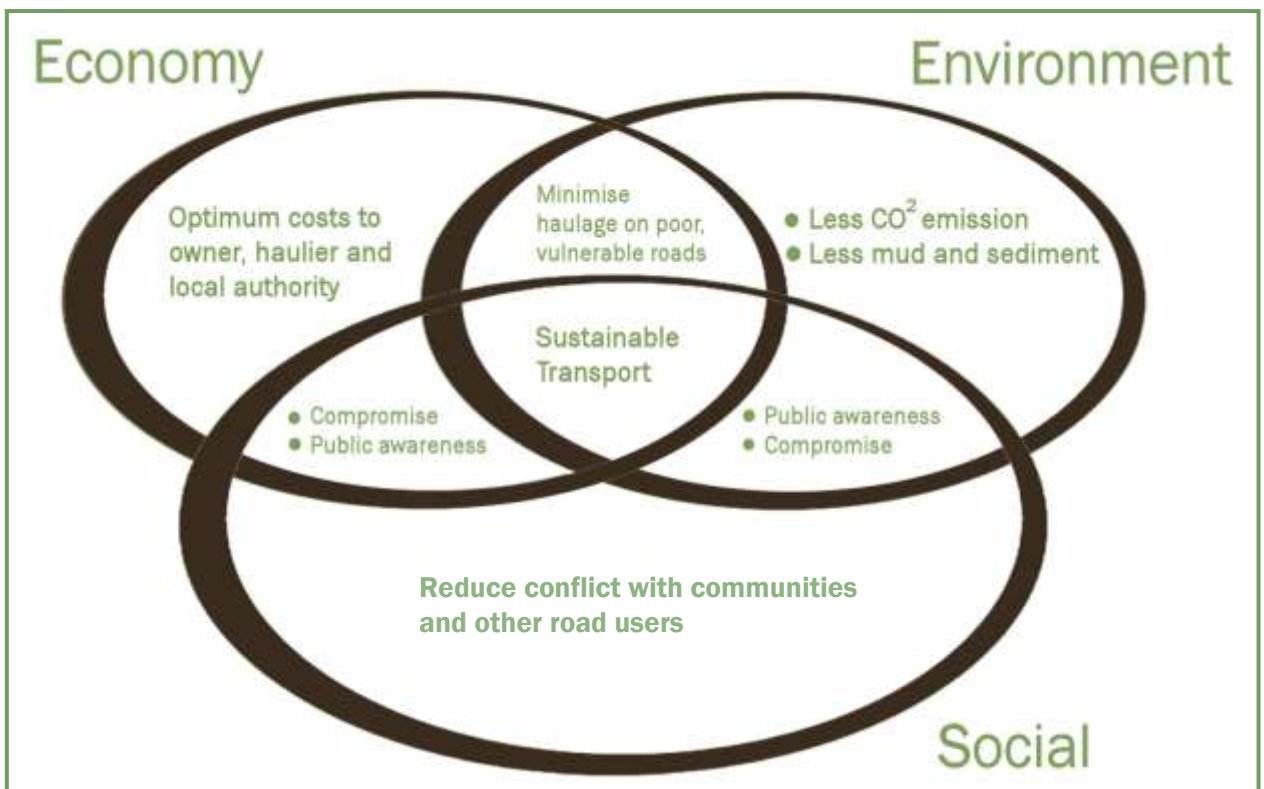
"Timber Transport Toolkit: Principles of unsealed road design"

Author: David Killer, Head of Forestry Civil Engineering, Forestry Commission

## Approaches to Sustainable Timber Transport

The diagram below depicts the intersecting interests of Economy, Environment and Social in relation to timber haulage and the various stakeholders involved who generally fall into the following groups:

- land and timber owners and their agents;
- haulage contractors;
- freight carriers;
- local councils as highways and roads authorities; and
- the Forestry Commission for England, Scotland and Wales



David Killer, Head of Forestry Civil Engineering

Many different tools are available to stakeholders in trying to deal with particular situations that arise. These approaches can be grouped under the headings: Legal; Partnership; Pragmatic; and Technical. The groups are summarised in the remainder of this section and referenced by page number to the relevant parts of the document.

## Legal approaches

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- Allocation of more “ring-fenced” funds for local authorities to spend on the upkeep of rural roads. Strategic funds.
- Recovery of Section 96 (59) charges.
- Enforce local authority duty to maintain.
- Test in court.
- Impose restriction on use of road.
- Remove road from list of public roads.

## Partnership approaches

Page 12

- Timber Transport Forum.
- Timber Transport Groups.
- Agreed Routes (Preferred Routes).
- Other non-regulatory agreements.

## Pragmatic approaches

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- Adherence to Agreed Routes.
- Regular communications with local authority to update programme of intended road use.
- Councils have one or two contacts in timber haulage to build up and retain experience of dealing with issues that arise.
- Consideration of self-help measures to minimise impact on public road.
- Avoid mis-use of road and verges.
- Agree and follow appropriate non-regulatory conditions.
- Adopt best practice.

## Technical approaches

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- Investigate more low-damage options.
- Minimise intensity of use.
- Consider reversion to gravel roads.
- Understand the weakness of a wet, un-drained road formation.
- Understand the inevitability of damaging the edges of a weak road with super-single tyres.
- Use of internal link roads.
- Incorporation of all timber flows into a Local Area Modelling Assessment and use of HDM4<sup>1</sup> to optimise all forest traffic.

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<sup>1</sup> HDM4 = the Highway Development and Management System, which is a software system for investigating choices in investing in road transport infrastructure. [www.piarc.org/en/projects/hdm4/](http://www.piarc.org/en/projects/hdm4/)

## Legal Approaches

### Legislation affecting timber haulage on public roads

The two main statutes that affect the use of public roads are:

- Highways Act 1980 – and equivalent Roads (Scotland) Act 1984 and the
- Road Traffic Regulation Act 1984.

For the purposes of this document the definition of a road (in Scotland) and a highway (in England and Wales) is taken to be the same. Scotland uses the Roads (Scotland) Act 1984 with cases generally heard at the Sheriff's Court. England and Wales use the Highways Act 1980 and cases can be heard by magistrates through to the High Court and County Court, with provision for appeal to Court of Appeal, or even the House of Lords. For this reason there is a good library of case law relating to the Highways Act 1980, although there are few cases referring to contemporary issues.

This section will examine aspects of the Roads (Highways) Acts which give direction on extraordinary traffic and the use of Traffic Regulation Orders imposed under the Road Traffic Regulation Act 1984.

### What is “extraordinary traffic”?

Quoting extracts from Section 96 of Roads (Scotland) 1984 (equivalent to Section 59 of Highways Act 1980):

“.. where as respects any public road it appears to the roads authority that having regard to the average expense of maintaining the road, or other similar roads in their area, extraordinary expenses have been, or will be, incurred by them in maintaining the road by reason of damage caused to it by excessively heavy, or other extraordinary, vehicles or traffic, they may recover from any person (in this section referred to as the “operator”) by or in consequence of whose orders the vehicles have, or traffic has, been on the road, so much of the expenses of maintenance as is, or is likely to be, attributable to that damage.”

“... If, before operations which may cause such damage commence, the operator admits liability in respect of the vehicles or traffic, he and the authority may agree the payment by him to them of a sum by way of a composition of such liability, or either party may require that a sum to be so paid shall be determined by arbitration; and where a sum has been so agreed or determined the operator shall be liable to pay that sum to the roads authority and shall not be liable to proceedings for such recovery as is mentioned .. above.”

There are no easy guidelines on whether a particular incident will be considered as extraordinary. To quote the legal commentary on this Section “what is extraordinary traffic and excessive weight is always a question of fact”. In other words it is not a question of ticking boxes and getting a definitive answer. Having said that there are factors for and against the decision:

- Excessive weight does not necessarily mean over the C&U<sup>2</sup> regulations for that particular vehicle, but it is a good start to be sure that timber lorries are within the legal limit.
- Section 96 above states that extraordinary traffic is deemed to be that which creates extraordinary expenses in repairing the road having regard to the average expense of that road or similar roads in the area. So if your road has an ongoing history of timber traffic, has other lorry traffic and is similar to others in the area there is less of a case for being considered as extraordinary. The example of building a factory at the end of a minor rural road is often used. None of the above criteria would be met and the developer would be liable.
- There are some very practical issues that have to be considered when allocating blame for extraordinary damage. For example, in the case of a large extraction, which operator and which lorries did damage and over what timescale?
- The forest industry is part of the rural economy and forest traffic should be seen no differently from other rural traffic.
- Quoting an extract from Section 1 of the Roads Scotland Act 1984 (similar to Section 41 of Highways Act 1980):

“.. a local roads authority shall manage and maintain all such roads in their area as are for the time being entered in .. their “list of public roads” .. and for the purposes of such management and maintenance .. they shall .. have power to reconstruct, alter, widen, improve or renew any such road or to determine the means by which the public right of passage over it .. may be exercised.”
- The commentary on the similar Section 41 of the Highways Act 1980 refers to the case of Attorney-General v Scott where the operator had problems “primarily and chiefly by the failure of the county council to maintain the road in a fit state to bear the traffic which was not more unusual or onerous than they ought to have expected to come on it. The Court of Appeal held that the highway authority were not entitled to a perpetual injunction to restrain the defendant from bringing his traction traffic on the road.” Reference was made to this in a different case in which Lord Alverstone said “It seems to be that Attorney-General v Scott is a distinct authority for the proposition that it is [the Highway Authority’s] duty to alter the standard of a road from time to time, as the traffic upon it becomes larger or alters its character. Such cases present great practical difficulties, and I always direct juries on the basis that the standard of a road authority’s duty must vary from time to time as the traffic becomes greater and more burdensome.”

Even if there is no case for claiming extraordinary traffic, operators should be careful not to damage verges or other features of the road – this is an offence under other parts of the Roads/Highways Acts.

There is also provision for agreements with authorities for work to roads connected with new developments under **Section 48** of Roads (Scotland) Act 1984 and **Section 75** of Town & Country Planning Act (Scotland) 1997 and equivalents. However this has low relevance to forestry traffic and will not be considered further.

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<sup>2</sup> C&U = Construction and Use

## Traffic regulation orders

Quoting an extract from **Section 1** of Road Traffic Regulation Act 1984 “..The traffic authority .. may make a ‘traffic regulation order’ .. where it appears to the authority making the order that it is expedient to make it –

- for avoiding danger to persons or other traffic using the road .. or
- for preventing damage to the road or to any building on or near the road, or
- for facilitating the passage on the road .. of traffic .. or
- for preventing the use of the road by vehicular traffic of a kind which .. is unsuitable having regard to the existing character of the road ... or ... etc

Any such order would apply to all vehicles of a particular class and could not be specific to forest lorries, i.e., covers all vehicles in the chosen class of weight, width, length. However, it is then possible for authorities to grant exemptions, particularly to local residents.

Statutory instruments regulate the procedures, time limits, appeals and similar for making traffic orders and temporary restrictions. These are complex and even the experts get it wrong.

These are regulatory controls which should be enforced by the police.

**Formal Restrictions:** Formal weight/length/width restrictions are the most powerful tool in the armoury of councils, but they can be a blunt instrument. In situations where safety is at stake, they may be essential, but their disadvantages in terms of stifling rural activity and the economy must be recognised. Permit exemption schemes can be introduced, but are troublesome to administer and police. Restrictions are also open to challenge on grounds of equity and it is far better to proceed by way of consultation and negotiation. Why should a hay lorry, builder’s truck or oil tanker be acceptable, but a timber wagon be banned?

**Section 96 agreements vs partnership agreements:** Councils can demand payment for damage caused by “extraordinary traffic” under Section 96 of the Roads (Scotland) Act 1984 (and equivalent legislation in England and Wales). There seems to be little history of this clause providing a ready solution to timber transport problems.

## The Way Forward

Locally negotiated partnership agreements between council and forest owner appear to offer a better way forward. The purpose of such agreements is to find a “middle way” to enable economically viable extraction within the fiscal limits for the councils and forest owners. Given the adverse economics, the negotiation of such agreements can sometimes be eased if the forest owner’s contribution is given in kind rather than cash. Examples might be the owner absorbing the costs of restricting output, of altering his internal forest road network, of supplying material from forest borrow pits, or of giving up land for road widening or some related public benefit. These ideas are explored in more detail in some of the case studies within this document.

# Partnership Approaches

## Timber Transport Forum

The Timber Transport Forum was established in February 2000 to provide a mechanism for sharing ideas and best practice on timber haulage issues. A network of Regional Timber Transport Groups (RTTGs) enables regional specific, operational solutions to be found through local authorities working in collaboration with the forest industry. The Forum brings together representatives of the RTTGs from England, Scotland and Wales; local government; central government agencies and the timber industry.

The main objective of the Forum is to identify and promote innovation and best practice. This is achieved through:

- Downloadable material on the website [www.timbertransportforum.org.uk](http://www.timbertransportforum.org.uk)
- Facilitating communication between the RTTGs.
- Disseminating information about the work of RTTGs and other timber transport initiatives.
- Identifying international best practice and promoting innovative thinking;
- Establishing working groups to address specific issues.
- An annual meeting to engage with a wider audience.

## Regional Timber Transport Groups

Experience from around the country suggests that partnership approaches have been the most successful in promoting good working practice. RTTGs have proved to be extremely useful in bringing interested parties, including the timber industry and councils together to find solutions to problems as they arise. Experience from RTTGs has shown that they:

- Provide a formal structure for discussing the issues.
- Enable parties to meet and discuss both specific issues and general approaches. Discussion on specific issues enables a better understanding of each party's position.
- Enable councils to engage with a fragmented private forestry sector.
- Enable contacts to be determined, and effectively briefed, within relevant council departments.
- Provide a focal point for multiple decision-making and representative bodies and departments in councils to co-ordinate and focus on the issues.
- Help shift from a position of individuals in confrontation, to a shared understanding of the issues within a group.
- Raise the profile of these issues, providing a partnership vehicle to gain support and understanding of the issues by local and central government departments, regional development agencies and others.

## Agreed Route Maps

Rapidly increasing timber harvesting in some parts of the UK may have a significant impact on the rural road network, which can best be managed by early planning.

Agreed Routes Maps (ARMs) [www.timbermap.org](http://www.timbermap.org), drawn up by councils in consultation with RTTGs, are a very useful tool in identifying the most suitable route for timber haulage. The aim is to keep timber traffic off the most vulnerable roads by directing it along any stronger routes that are available. Data has been collected to provide the basic information for the development of these voluntary 'Agreed Routes'. The process of agreeing preferred routes, leading to ARMs, usefully identifies problem areas and facilitates the identification of acceptable solutions. The information gathered has also been used to help inform council planning and spending on roads upgrading and maintenance.

To be effective, these maps need regular review and potentially updating. Importantly, this general approach is endorsed by the network management duty imposed upon Local Highway Authorities (LHAs) by the Traffic Management Act 2005 and Transport (Scotland) Act 2005. ARMs have been developed by Regional Timber Transport Groups throughout Scotland.

To work best, the forest owner or his agent should be well informed of the status of the roads serving the forest and of any potential problems.

## Strategic communication – protocol for consultation between industry and the Local Highway Authority

If the forest is certified to the UK Woodland Assurance Standard, the manager will need to ensure that any likely adverse impacts of haulage have been taken into account before harvesting commences, and possibly have a written procedure in place for doing this, UK Woodland Assurance Standard (UKWAS), page 26. It is essential that the forest owner, or representative, ensures that, prior to any timber sale and extraction, the necessary consultation with the LHA has been completed. An example from Argyll can be found on page 16.

## Engaging with private forestry owners; local communication

The felling licence application stage is a useful opportunity for applicants to be made aware of potential road constraints. The Forestry Commission and councils are encouraged to set up protocols to make sure that this happens, ideally this should be done as an attachment to the licence when issued. An example from Argyll can be found on page 16.

Before embarking on seeking a felling licence from the Forestry Commission, the owner/manager should call the council to discuss his proposals, if there is any concern about haulage. For this to be effective, it is necessary to have an identifiable officer with an understanding of the needs of timber haulage. It is advisable that details on how to contact the person who deals with timber transport is printed on local leaflets which deal with timber transport. It would also be useful to print the name and contact

details of the person responsible on more transient documents such as the RTTG minutes and the updates of the Agreed Routes Map. If there are apparent difficulties with access, these can be discussed. There is room for negotiation at this point between the needs of the industry and the roads authority. Non-regulatory conditions can then be included in the extraction and haulage contracts being drawn up and a satisfactory compromise reached. Where compromise is not reached, then the issue should be taken to the RTTG.

## Potential areas for discussion regarding haulage extraction agreements

Where the underlying road structure is weak, options include:

- Spreading the extraction programme over a longer period.
- Limiting extraction to certain periods of the year, such as, summer or dry weather periods when the road foundation is stronger.
- Ensure sufficient time gap between loaded vehicle movements. On wet ground a longer interval gives the road structure more time to recover. Research is underway to determine suitable intervals.
- Different vehicle configurations, (such as, shorter, lighter, more axles; using twin tyres, tyre pressure control systems) offer different access opportunities, but also carry different costs. Not all configurations may be available in some regions.
- Identify weakest sections of road, or geometric pinch points, which require special care.
- Improve signage to improve safety without major expenditure.
- Monitoring of deterioration (such as photographic, straight edge/levelling, road condition surveys).
- Reactive patching focussed on problem areas rather than major advance works (although there are limitations to the effectiveness of this approach).
- Local pavement strengthening (overlays with/without steel reinforcement) (only suitable for localised widening on bends / additional passing points that are not subject to normal road use / driver behaviour).
- Concentrate expenditure on the unbound pavement layers with a light surface dressing rather than costly bound overlays.
- Encourage a sympathetic, practical and economic design approach rather than costly “design manual” solutions.
- Have protocols in place should problems arise.

The following options work best where the parties are in dialogue sufficiently in advance of the harvesting programme to enable cost-effective re-scheduling:

- Re-scheduling of extraction programme until proper assessments or improvements can be carried out.
- Re-scheduling of maintenance work to ensure that the road is ready for extraction.
- Lay out the internal forest road network to relieve the public road as much as possible.
- Negotiate agreements with other forest- and landowners to share internal roads, keeping traffic off weak public roads and bridges.
- Modal shift to rail, sea or canal where appropriate.

Importantly:

- With a low margin raw material, there are minimum limits, volume and timing, to what can viably be harvested and hauled.
- There are minimum viable rates (tonnes per week) at which haulage can proceed. Harvesting volumes are set by the rate of cutting, in turn set by the rate of working of machinery, but is typically in the region of 600t per week, or around 25 lorries per week.
- Where there is a need to load a boat, this may require more intense periods of haulage over shorter periods.

## Local community involvement

It is acknowledged that new and/or increased traffic flows, especially large goods vehicles, may have the potential to cause concern, resentment and possibly conflict within local communities.

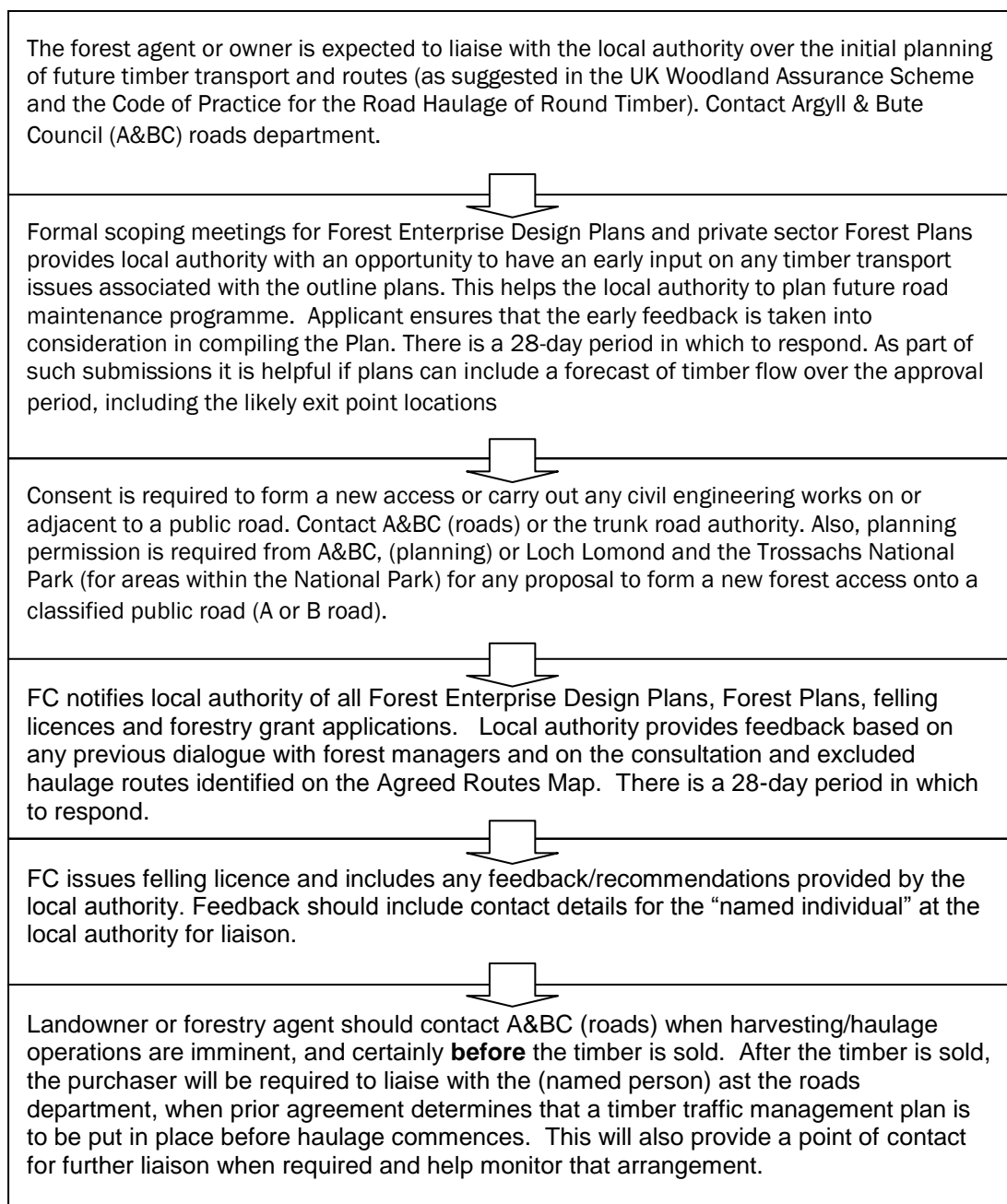
Prior or early contact by the woodland owner, manager or haulier generally pays off in the long-run. Professional judgement is important in deciding on the appropriate level of consultation, and the timing. Page 25 provides some guidance based on past experience.

## Case studies – Partnership Approaches:

### Protocols and Processes:

#### Argyll Timber Transport Group. Protocol for the consultation and notification for timber harvesting and associated road haulage.

Based on the Agreed Route Map within the Argyll & Bute Council area.



## **Dumfries & Galloway – road updates**

A very useful function of Timber Transport Groups is to act as a focal point for disseminating information on forecast route closures, weight restrictions and road works. For example, Dumfries and Galloway Council identifies forthcoming road closures and maintenance works that may affect timber haulage. These are then circulated to members of the RTTG and other relevant parties.

For example:

From: Dyson, Neil [mailto:Neil.Dyson@dumgal.gov.uk]  
Sent: 15 August 2007 12:14  
To: Subject: A 71 Road closure  
Importance: High

To highlight to anyone using the A71 Galston to Strathaven road for timber transport. Resurfacing works will be carried out by East Ayrshire council at Caldermill on the 17th, 18th, 20th and 21st.

The road will be closed and diversions in place, so expect delays.

I hope this information proves useful.

Neil Dyson  
South of Scotland timber transport officer  
Dumfries and Galloway Council  
Militia House, English Street  
Dumfries DG1 2HR  
Tel: 01387 260 367  
Fax: 01387 260111  
e-mail: [neil.dyson@dumgal.gov.uk](mailto:neil.dyson@dumgal.gov.uk)  
Web: [www.dumgal.gov.uk](http://www.dumgal.gov.uk)

## **Argyll Timber Transport Group guidance note. Timber traffic management on sensitive roads**

There are several options/controls that may be applied during monitoring the effect of timber traffic movements, and/or to protect a sensitive public road. Some of those are not immediately apparent and although the following, or combinations of the following, are not exhaustive, it may be that their deployment will enable the forest industry to continue operations in marginal conditions.

Some of these arrangements will, to some extent, financially burden the industry, and it should be borne in mind that the more remote the forest from the more likely any additional costs are to negate the marginal profit and result in a shut-down of all work.

### **Potential options/controls**

- **Driver awareness:** There are generally no financial implications in employing a driver who is familiar with the road and the traffic conditions, but some training may be necessary.
- **Vehicle speed:** The centre of gravity on a laden timber lorry is higher than most other loads, therefore, where there are laterally uneven road surfaces it is essential to reduce speed, avoiding shock loading on individual wheels/axles.
- **Number of loads:** The total quantity coming from the production area (size of job).
- **Frequency of loads:** The time between each lorry load (which is critical when loading ships.)
- **Time of year:** Water tables likely to be highest from November to February inclusive.
- **Prevalent weather conditions:** Wet weather reduces pavement strength; prolonged dry frosty weather is good, but poor when temperatures rise and frost comes out, which may be particularly significant on forest and rural roads.
- **Wheel type/tyre size:** Double wheels are beneficial on all roads, but even super singles are improved with 600 series + tyres. The use of Tyre Pressure Control Systems is being investigated.
- **Vehicle configuration:** Six-wheeled lorries and six-wheeled trailers can carry the same payload as the normal artic configuration, but where the problem is narrow carriageway and poor geometry, rather than weak pavement strength, then this option may permit operations with little financial burdens on the forest owner, whilst also being sympathetic to the road conditions.
- **Size of load:** Reduced load size brings large financial penalties to the forest owner.
- **Type/size of lorry:** Use of smaller lorries brings large financial penalties and probably with less benefit than may be expected, because axle weights may be similar, or even greater, and frequency of trucks increases.

It may be possible to give the carriageway adequate protection by employing less severe means than immediately comes to mind. For that reason, it is imperative that consultation is carried out at the planning stage if possible, and certainly before programmes are set and harvesting operations due to commence.

A traffic management scheme should only be considered when there is little pavement strength, difficult geometry and/or other essential traffic demands. Consideration of these measures is not appropriate to lack of drain maintenance and/ or overhanging foliage, which are the responsibility of the roads authority and/or the land owner.

Where projected timber movement is easily quantified, or work is ongoing on a route that has traditionally carried forestry traffic, neglect of roadside drainage and lack of control of roadside vegetation may become a health and safety issue.(for example, when light vehicles meeting lorries cannot get into passing places due to overhanging branches). Early consultation should minimise such problems.

## Shared access on forest roads draft protocol

### Background

The forest industry in GB is facing challenges in connection with increasing pressures on timber haulage from forest to mill which include:

- Access to remote forests along sub-standard, expensive to maintain, public roads;
- Resistance to 44T lorries using minor public roads, especially through rural communities;
- Fragile economics of timber haulage.

The Timber Transport Forum wishes to promote and encourage the sharing of forest roads in the public and private sectors as an alternative to using sensitive parts of the adopted road network. A small working group was established to draft a simple protocol that will be recognised by all parties.

### Basis of protocol

In order to reduce the pressures on the public road network there will be a presumption that all forest owners, whether in the public or private sector, will co-operate in granting access rights to benefit other woodlands in accordance with this protocol.

### Application

This protocol will be considered whenever significant amounts of timber are to be carried along public roads, which are not Agreed Routes for timber transport, and where there are opportunities to reduce such use by utilising existing, or new, forest roads. It is accepted that alternatives to the use of public roads are not always available, or do not provide a cost-effective solution as compared to the demands on the public road network. Owners of forest roads should consider the benefit to the public and wider forest industry when setting charging levels.

### Method

Each case will involve its own unique set of circumstances, however it is expected that where the access is to be used for a defined period of time, a short-term permission will be appropriate. However, where the nature of the access dictates a more permanent arrangement to justify the investment and allow secure long-term rights, a servitude grant will be necessary. Examples of the circumstances for each type of agreement, together with a summary of typical issues to be considered, including the basis of charging, are covered in Appendix 1.

## **Ratification of protocol**

The protocol was ratified at the Timber Transport Forum on 30 May 2006. It will be issued to Forestry Commission Scotland, England and Wales and to the private sector through FTA (now ConFor) with a recommendation for adoption by all parties.

## **Framework for shared access agreement**

### **1. Type of agreement**

#### **A. Permissions**

Used where one-off access is proposed, such as:

1. to harvest an area to be replanted with broadleaves with no future harvesting requirements.
2. to harvest an area which will be served by some future road, not yet constructed.
3. to clear wind blow, or similar, in short timescale where alternative roads cannot be constructed quickly.
4. if the forest owner is prepared to accept a one-off access, with no commitment to the future.

#### **B. Servitudes**

Used where permanent grant is proposed, this would be the expected norm and would apply in all cases where the criteria necessary for a permission are not met.

### **2. Background**

Setting out the purpose and intent of the agreement.

### **3. Parties involved**

Setting out names of parties, including third parties with rights to use the road, and any restrictions on assignment.

### **4. Access requirements of each party**

Stating area to be served and purpose, for example, harvesting use only, any restrictions on vehicle types and size, whether the grant is exclusive and similar requirements; identification of sections of road involved and title of land, as referred to on a plan.

## **5. Basis of charging for access rights**

### **A. Permissions**

Charging regimes:

- rate per tonne;
- flat rate for the total job;
- rate per week/month of the period for which access is granted;
- rate per lorry mile.

The basis for charging is to be agreed dependent upon circumstances involved in the particular case, but matters to be considered should include:

- potential for road improvements being carried out by the forest owner, for the benefit of the road owner;
- economic viability of specific harvesting operation;
- the cost of alternative access routes available to the forest owner;
- potential for saving damage to public road infrastructure;
- method of dealing with repairs/maintenance to the road;
- strength of the road and potential for damage to the basic foundation not covered by maintenance;
- any difficulties/costs which may arise out of shared use, such as, management time in dealing with impact on recreation;
- period of agreement and any options for extension, although it will be exceptional for a permission to be used for longer than two years.

### **B. Servitudes**

Charging regimes:

- up-front capital sum, the normal and preferred method, payable at time of servitude grant;
- payment linked to actual use per tonne;
- annual payment at a set figure.

The basis for charging is to be agreed dependent upon circumstances involved in the particular case, but matters to be considered should include all issues identified under Permissions above, together with:

- capital benefit to the forest owner;
- terms of the servitude grant, ie, all forest uses, or only harvesting;
- past investment in construction cost of the road to be used by the forest owner;
- area of forest (in both ownerships) to be served, hence proportion of use to be made by the forest owner;
- depreciating effect on the value of the road owner's property by allowing additional user;

- any elements of benefit which the forest owner can grant to the road owner in exchange;
- potential for third parties to join the road share, with further contributions to the road owner.

## **6. Management arrangements**

- Parties should meet at an agreed interval (annual meetings are recommended) to review the application of the agreement, assess the maintenance charges and set the charges according to user for the next period.
- If new link roads need to be constructed the agreement should stipulate responsibility for planning, funding, constructing and maintaining the work, the compensation terms for any trees felled in connection with the improvements and any restrictions on permitted use. The standards of new roads to comply with laid down minimum.
- All parties should be given notice (three months minimum is recommended) of intended use by one of the parties. Other parties will then provide information on any other users, hazards or constraints for the duration of use.
- No vehicles or materials should be left on another party's land without their express permission. Broken down vehicles should be removed.
- All parties will be responsible for instructing their users to adhere to a specified speed limit.
- All parties will comply with all relevant legislation and with codes of practice which have been endorsed by the trade.
- The agreement should include arrangements for any necessary road closures or diversions. Owners will normally give a minimum of seven days' notice for any planned closure of their part of the route. Closures due to blockage or lifting frost will be more immediate. No compensation will be payable in either circumstance.
- The standard of road agreed at the outset can be changed by agreement with all parties and any costs shared between parties. Otherwise the party requiring the change will bear the cost.
- The location of gates/barriers should be identified with any requirements to close/lock and the ability to erect new.

## **7. Maintenance arrangements**

- Any party to an agreement can upgrade a road belonging to another party at their own cost and to a standard approved by the owner.
- At the commencement of the agreement, or when the roads have been upgraded to the satisfaction of all parties, it is recommended that a written and photographic record is made and signed by all parties. This will be used as a record of the standard to which owners will be expected to maintain their roads.
- Each owner should be responsible for maintaining his roads, but can negotiate with other owners to do the work for them on normal commercial terms.
- Each party will undertake to use the agreed Defect Reporting System. If defects are not put right within 10 working days the user will have the right to undertake the repair and charge the owner.
- Parties causing exceptional damage to another owner's road will be responsible for paying for repairs to a standard agreed with the owner.

## **8. Charges for maintenance**

- Charges are shared by the parties in accordance with user. This applies to routine road and bridge maintenance. Other charges relating to replacing bridges and culverts, dealing with storm damage and similar will be borne by the owner.
- It is recommended that charges are based on tonnage using the road, but with the possible improvement of charging per tonne-km.
- The apportionment of charges will be agreed at the annual meeting, which can include a surcharge for using the road in winter months.
- It is the responsibility of the solum owners to keep records of repair costs. These will be audited at the annual meeting.

## **9. Liabilities**

- Each party will indemnify the owners of the solum against all liability, claims and costs arising from the use of the shared route.
- Further indemnification will be required if the agreement allows for a party to construct a link road on another owner's property.
- Owners have a duty to advise users of any hazards, including any conflicting uses of the road, but each user will be responsible for carrying out their own risk assessment.
- The agreement will set the level of insurance that users must hold against third party liability.

## **10. Disputes**

The agreement will identify the method of dealing with disputes, arbitration or mediation and will state circumstances when termination may apply and the implications.

## **11. Other Conditions**

Setting out other terms as the parties and their legal representatives shall agree. These could include:

- requirements to improve access onto public roads;
- agreements for use of roads by rallies and the maintenance terms which apply;
- availability of repair stone from private quarries and the basis of charging particular requirements relating to CROW or Land Reform Scotland Act 2003.

## Working with communities

The Forestry Commission Scotland (2006) “Case studies: Community involvement in private woodlands” provide several case studies, although none are related directly to timber transport issues. [www.forestry.gov.uk/pdf/fcfc109.pdf/\\$FILE/fcfc109.pdf](http://www.forestry.gov.uk/pdf/fcfc109.pdf/$FILE/fcfc109.pdf)

1. The first step is to identify the appropriate people to involve. These are people who could significantly effect or be significantly affected by what you do, usually called "stakeholders". Stakeholders may be from communities of interest, such as a, wildlife group or access forum, as well as, residents of the local community.
2. The next step is to work out how they should be involved, bearing in mind that the involvement may generate expectation of future involvement. Some consideration of the concept of levels of involvement is useful, for example:
  - Information: information is given to people on the plan and feedback is accepted.
  - Consultation: people are invited to express their interests, concerns and ideas about the proposal(s) and these are taken into account in the eventual decision.
  - Involvement: people actively participate in generating options and potential solutions.
  - Partnership: people directly participate in selecting the best-fit solution.
  - Local control: local people decide and take responsibility.

The projects covered in this guidance tend to operate through “consultation” although “involvement” may be appropriate in some situations. It is important to be transparent about the level at which you are operating, particularly the degree to which participants can influence the decision.

3. The next step is to work out the best tool(s). There is a range of techniques beyond the traditional public meeting. See the Forestry Commission’s “Involving people in forestry: A toolbox for public involvement in forest and woodland planning”, [www.forestry.gov.uk/forestry/infd-5xm8](http://www.forestry.gov.uk/forestry/infd-5xm8)
4. Once the consultation (or other level of involvement) has been completed, the decision and the reasoning behind it should be communicated to stakeholders.

### Some additional principles:

Success will depend on personal relationships. Sophisticated action plans, slick presentations and glossy documents will not compensate for someone who lacks skill in areas such as communication, listening and empathy. Be prepared to explain technical issues, such as, agreed haulage routes, in simple terms and avoid using jargon.

Maps of the local area can be useful to aid discussion, but forestry maps with coupe plans and so on are usually not. Include information that is of interest to the participants.

Residents may have local knowledge that you can use.

Do not expect too much time from local residents: they are real people leading busy lives, so make it easy for them to get involved.

It is usually a good idea to make use of pre-existing community institutions rather than starting from scratch.

## UK Woodland Assurance Standard (UKWAS)

Woodland certification provides independent confirmation that a woodland is managed sustainably. The UK Woodland Assurance Standard forms the basis of the two major forest certification schemes in UK (Forest Stewardship Council and Programme for Endorsement of Forest Certification). FSC and PEFC accredit independent third party organisations to audit woodlands and forest product producers against UKWAS. To achieve certification, forest managers must meet the requirements of UKWAS.

Around 80% of the timber harvested in the UK comes from certified woodlands.

Under UKWAS section 7.4.2 (the following is an extract):

The owner/manager shall mitigate the risks to public health and safety and the wider impacts of woodland operations on local people.

**Guidance:** Timber traffic, particularly in and around the woodland.

### Means of verification

All woodlands: No evidence of legal non-compliance.  
Evidence that complaints have been dealt with constructively.

Woodlands over 100 ha: Documented evidence that owners/managers have considered actual and potential impacts of operations on local people and interest groups and have taken reasonable steps to mitigate them.

**From:** Simon Armstrong

**Sent:** 06 March 2008 16:00

**Subject:** ARMs and UKWAS 7.4.2

Following on from recent emails I hope the following is useful. Without doubt the partnership approach of the RTTGs, facilitated by Project Officers, offers the best opportunity for ensuring adherence to ARMs across the board.

1. The UKWAS standard refers directly to timber transport in section 7.4.2. For woodland owners over 100 ha there must be “Documented evidence that owners/managers have considered actual and potential impacts of operations on local people and interest groups and have taken reasonable steps to mitigate them”.

Interpretation of this requirement is largely left to the certification body’s auditors. My interpretation is that owners/managers need to have a (written) strategy/procedure for timber haulage and adherence to ARMs. Owners/mangers need to be able to show implementation of this strategy/procedure.

**A haulier abusing the ARM does not mean that the owner/manager of the timber he is carrying is not complying with UKWAS. The owner/manager needs to demonstrate that they had taken “reasonable steps” to avoid abuse of the ARMs by the haulier, not that the ARM was adhered to.**

Reasonable steps might include:

- Demonstrating knowledge of the ARM, updates, and being able to readily access a copy of the latest ARM.
- Contractual conditions for haulage specifying adherence to ARMs.
- Demonstrating appropriate consultation had taken place e.g. with the roads department for consultation routes.
- Engaging with the local Regional Timber Transport Group.

Any stakeholder can lodge a formal complaint directly with the certificate holder. The certificate holder is required to deal appropriately with that complaint. This implies that they investigate and take appropriate action.

Any stakeholder can lodge a formal complaint against any certificate holder with that certificate holder's Certification Body\*. The Certification Body is required to investigate the complaint and make its findings against the requirements of UKWAS.

2. There is no requirement (for FSC Chain of Custody certification) for processors to require hauliers working for them to adhere to ARMs.

\* - e.g. Soil Association Woodmark, Control Union, SGS Qualifor.

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## Regional Timber Transport Groups:

### **Stirling Council and timber transport - working in partnership**

Stirling Council is one of the smaller local authorities in Scotland, but it covers a relatively large rural area with a thriving public and private forest industry. Some of the forest areas are served by minor roads, which also serve many rural communities. Like the rest of the country, minor roads are generally not constructed to a modern standard and some are not in the best of condition. Years of under-investment in the public road network have resulted in approximately 55% of the Council's B, C and unclassified roads requiring maintenance treatment. This is slightly worse than the Scottish average. (Source: *Scottish road maintenance condition survey, 2006*).

The Stirling Timber Transport Liaison Group (now the Stirling and Tayside Timber Transport Group) was established in 1999. The Group's principle objective is to encourage liaison between the council and the timber industry. Up until that time, there had been no real coordinated approach to addressing areas of conflict that arose from the haulage of timber. The main recurring issues relate to haulage through rural settlements, haulage along the minor public road network and the impact of this haulage on the road condition. However, the partnership approach has assisted in building good working relationships on the day-to-day business of harvesting and transporting timber.

This has proven to be particularly important in the rural areas where the road network is vital to both the local community and the timber industry. Indeed, it is considered that early communication and consultation with the council and local communities on timber extraction proposals, resolve many issues. This includes agreements on extraction programmes, limiting extraction times, controls to avoid conflict of vehicles meeting on narrow roads, provision of temporary passing places, repairs to verge damage and agreement and approval of accesses onto public roads.

This communication also helps to highlight the economic and employment benefits that forestry brings to the area, whilst recognising the concerns of the communities affected.

The creation of the Agreed Route mMap has also resulted in improved liaison with the industry particularly with the private sector with many private growers now contacting the council to liaise on proposed extraction. This communication assists the roads maintenance officers in monitoring the road condition and can influence spending of limited maintenance resources.

The establishment of the Timber Transport Fund has also given the opportunity for further close cooperation on the development of improved timber transport with several schemes that have an indirect positive impact on the road network being considered within the RTTG's area. It is hoped that the funding period can be extended to allow developing schemes to be constructed in the coming years.

To make this group work requires the council to continue to make a commitment to provide and resource a principal point of contact or Lead Officer to participate fully in the group. This lead officer is required to manage, develop and coordinate communication between the council and the industry, including continuing to tackle long held perceptions on what the council and industry are responsible for or capable of doing: no easy task. *Colin McNicol, Roads Support Manager - July 2007*

## **Partnering Charter: Ayrshire RTTG**

We, East Ayrshire Council, North Ayrshire Council, South Ayrshire Council, Scottish Enterprise Ayrshire, Strathclyde Police, Forestry Commission, Forest Enterprise and representatives of the private sector of the forest industry, commit to the following core values:

- Openness, effective communication and co-operation.
- Mutual trust, respect and integrity.
- Excellence.
- Continuous improvement

We will work together to assist one another in achieving each partner's aspirations, and in particular the following objectives:

- The maintenance of the area's woodlands through ensuring access to them.
- The development of the forest industry through management and improvement of haulage routes.
- The avoidance or resolution of timber transport problems.
- The development and use of best management practice for timber transport within the area.
- The agreement of a timber transport strategy, integrating public and private roads, to provide cost effective and sustainable solutions.

## Engaging with hauliers

Many Regional Timber Transport Groups have found it difficult to get hauliers to attend their meetings. One route for better engaging with hauliers are haulier liaison days, where a specific and targeted programme can be put together that will prove useful to hauliers to attend. This also gives hauliers an opportunity to feedback on current issues facing them.

### Grampian Timber Haulage Seminar

9.30 am for 10 am start  
 Wednesday 28th May  
 Barn & Bushel, Thainstone Centre, Inverurie

#### 'Feedback and Discussion Day'

This meeting will identify and explore the issues facing timber hauliers and will focus on heavily on training. It is aimed to be informal and promote discussion on how to support and enhance the industry.

#### AGENDA

09:30 - 10:00	Tea/Coffee Welcome & introductions
10:00 - 10:30	Health and Safety and Haulage Jim Burns, Safety Officer Forest Enterprise Scotland
10:30 - 11:00	Mobile Despatching & Uplift Procedures Graham Godsman Forest Enterprise Scotland
11:00 - 11:30	Tea/Coffee
11:30 - 12:00	Changes in the law: Practical Implications Susan Wood, Traffic Examiner VOSA
12:00 - 12:30	Timber Haulage Driver Training – SAFED John Sheey, AEA Group
12:30 - 13:00	Certificate of Professional Competence Chris Campbell, National Manager – Scotland Skills for Logistics
13:00 - 13:30	Questions and Answer Session
13:30 - 14:30	Lunch

Forest industry consults growers before signing up to RTTG Partnership Charter

**[This message was sent to Forestry & Timber Association members in September 2002. (FTA amalgamated with ConFor on 01 September 2006)].**

## **FEEDBACK REQUESTED FROM MEMBERS**

Even if you do not live in, nor have forestry interests in Dumfries & Galloway, you will probably have heard of the extreme roads problems in this region. With the intention of marking the work the Group has achieved to date, the council suggested that the main forestry players might enter into a Partnering Charter, and the proposed wording of this document is noted below.

FTA has been asked to be a signatory, and this has been discussed by the Scottish Development Group (SDG). In principle they were in favour, though they are deeply aware of the strong feelings of some members on the whole roads issue. It should be emphasised that in their recommendation that FTA does sign the document, the SDG wishes to point out that the production at this same moment in time of the region's Agreed Routes Map, is a coincidence, and the two subjects are quite separate. It would be a fool's paradise to think that problems will not occur with individual roads issues – indeed FTA is presently in support of several members' representations to the council on just such. But on balance the SDG feels the existence of the Charter will help strengthen relationships within the industry and with the council.

FTA believes that other Timber Transport Groups may in time decide to consider similar charters, and that is why this note is going out to the whole Scottish membership. Anyone is welcome to comment back to myself, but I would particularly welcome feedback from members resident in or owning forestry in Dumfries & Galloway. Responses are requested by 11 October 2002.

Thank you for your interest in this difficult subject.

Jamie Farquhar  
Director Scotland

## **Dumfries and Galloway Timber Transport Group Partnering Charter**

We, the Dumfries & Galloway Council, Forestry Commission, Forest Enterprise and representatives of the private sector of the forest industry, commit to the following core values:

- Openness, effective communication and co-operation.
- Mutual trust, respect and integrity.
- Excellence.
- Continuous improvement.

We will work together to assist one another in achieving each partner's aspirations, and in particular the following objectives:

- The maintenance of the value of the Region's woodlands through ensuring access to them.
- The development of the forest industry through management and improvement of haulage routes.
- The avoidance or resolution of timber transport problems.
- The development and use of best management practice for timber transport within the Region.
- The agreement of a timber transport strategy, integrating public and private roads to provide cost-effective and sustainable solutions.

Signed .....

## **North Yorkshire Timber Freight Quality Partnership**

The North Yorkshire Timber Freight Quality Partnership includes representatives from the local authority, forestry sector, hauliers, government agencies, including Forestry Commission. Its remit covers timber transport issues in the North Yorkshire sub-region. Key outcomes from the group include:

- A structure and mechanism to discuss and resolve issues relating to timber transport.
- An opportunity for the forestry/transport sector to consider issues collectively with the local authority in order to establish a partnership whose aim is to minimise the impact of timber transport, whilst recognising the key role the sector plays in delivering a wide range of economic, environmental and social outcomes.
- An opportunity for the sector to communicate its wider relevance with key partners and stakeholders, such as, the local authorities.
- The opportunity to spread best practice and build on solutions to address specific issues. As an example, Forestry Commission has been working with the local authority to agree haulage routes. Other wider work has been the use of Forestry Commission felling licence information to help identify areas requiring further work and involvement with the highways/roads department.

## Tywi Forests Roads Plan Review and Haulage Network (Oct 2007)

### Executive Summary.

The aim of this report is to identify the issues surrounding round timber haulage from the Tywi and Irfon forest complex, and the associated public highways used.

The report also identifies options and recommendations for partnerships between relevant parties, both public and private sector and the Local authority Highways departments, and offers potential solutions to benefit both the rural highways infrastructure, local communities and the forest industry.

The recommendations and solutions focus on a series of industry best practise, partnership funding, and working, and an agreed Preferred Routes Network within both the forest complex and the unclassified public highway.

### Strategic Context.

The Tywi forest complex encompasses 10'000 hectares of FC managed land, 8% of the FC land holding in Wales, with a predicted 91'0000 m<sup>3</sup> timber production per annum during the period 2011 to 2016, equating to 11% of FC Wales harvest.

In addition to the FC managed land the private sector hold in excess of 5000 hectares, with a predicted timber harvest per annum of circa 30'000m<sup>3</sup>.

In context, this timber production will demand annual haulage logistics to manage circa 6000 articulated lorries despatched from the forest gate.

In most cases timber despatch on the public highway will travel in 3 directions namely;

- North and West bound to Strata Florida, Pontrhydyfendigaid, in Ceredigion;
- Eastbound to the A483 between Llandovery and Builth Wells, in Powys; and
- South bound to the A483 Llandovery, in Carmarthenshire.

A representative selection of FC timber despatched from the Tywi forest complex during the period April to September 2007, identified that timber haulage travelled in the directions; North 35%, South 23%, East 20%, and West 22%.

Round timber haulage impacts on each of the 3 local highways departments of Ceredigion, Powys and Carmarthenshire.

The forest industry is an important contributor to the rural economy in Wales. Although the value to the landowner may be low, in comparison to other national industries, and investments, the downstream activity and end product retail value may increase 100 times the primary product value of the round timber leaving the forest.

Considering typical standing value of timber sales from Tywi forest equals £7/m<sup>3</sup>, an annual generated retail value of Tywi forest timber harvesting would contribute in excess of £100 million each year to the rural economy and associated timber processing industries.

The haulage of round timber must address issues surrounding the use of unclassified public highways, both to the impact on the road surface, and those communities immediately affected by a sharp increase in large traffic use.

No one single solution will address the issues faced, but a combination of better understanding of the highways authorities demands and pressures, and the local communities, as well as those faced within the industry, will significantly raise the awareness and importance of the forest industry to this area.

The development, and sharing' of best practise, and partnership investments will further aid solutions and establish the fostering of greater ownership and responsibility for the care taking of both the forest roads and those public highways identified in a preferred routes network.

### **Project Objectives and Scope.**

1. The FC Forest District, and private land owners', should identify **5 year production flows** from the core forest areas, and in particular those forests which will demand high use of unclassified highways. *This is a requisite for both forest design plan consultation, and UKWAS certification. See appendix 1 & 2.*

This information provided for by the forest industry to the highways authorities will allow the local council to prioritise funding and programmes, and in consultation this should be the first contact for establishing the preferred routes network, previously mentioned.

2. **A Preferred Routes Network** to be established in agreement with local highways authorities, the FC, and local forest owners, and managing agents. This PRN should form the basis for all round timber haulage contracts, and be the basis for best practise within the forest industry.

3. **Best practise**, and industry self help solutions will be required to establish a robust future for round timber haulage on rural unclassified highways. Highways authorities will be more receptive to aiding road repairs where the industry has identified solutions of reducing the impact on the public highway network.

Solutions to include;

- Shared forest road usage, between forest owners.
- Establishing links within forest roads network between forest owners.
- Increase awareness for all road users by investment in increased timber haulage signage on public roads, and industry self adopted speed limits on unclassified public highways along the Preferred Routes Network.
- Regular roads' surveys to identify weaknesses in road structures before a rise in haulage occurs.
- Timber haulage investment in double wheeled systems.
- Notification of peak utilisation of timber haulage on the public highway. E.g. Pulp export, which will demand a high traffic volume in a short time period. An expected utilisation of rail freight using Llandovery station is anticipated to haul 44'000m<sup>3</sup> per annum, and will demand peak shuttle haulage from timber haulage traffic, using the Cilycwm and Rhandirmwyn unclassified road network.
- Consider greater use of 6 or 8 wheeled configuration with drag trailers.
- Where super singles are adopted, then only accept 600series + tyres.

- Advanced forest haulage driver training to be encouraged, and made available.
- Seasonal forest operations, by minimising timber haulage from the forest between the months November to February. This can minimise the structural damage from heavy traffic on both the forest roads and the unclassified public highways.
- Minimising traffic flow during periods of heavy frost, and the immediate thaw, again will minimise the impact on the highway.
- Time controlled haulage a peak times. I.e. avoiding timber haulage through villages at periods of start' and end of school periods.
- Development, and trials,' for use of "central tyre pressure control".

Each of the above should be accepted as industry best practise, and should form the basis of all haulage contracts, in particular any long term contracts awarded.

### **Benefits Criteria.**

The key to success of this project, and the continual acceptance of round timber haulage in rural areas, such as the Tywi forest complex, will be dependable upon good communication and a shared understanding of each others expectations and demands.

The benefits of this forum will include:

- i) An improved budget planning for local highways departments.
- ii) Sustainable round timber haulage for the forest industry in the area, utilising a well managed preferred routes network.
- iii) Improved roads maintenance for both the forest industry and the local communities, including well managed woodland landscapes and public roads, which will ultimately benefit the tourism industry in the area.
- iv) Improved road safety for all users.

### **Funding Options.**

Funding bids should be ideally submitted as part of the partnership formed, and focussed on challenge funding via the Welsh Assembly Government Rural Industry Funds. (The Rural development Programme).

This will demand involvement from the FC grants and licence department, and the WAG rural development department.

The following areas should be explored for funding to include;

- Development of a "Preferred Routes Network".
- Roads improvement investment, to include both public highways and the core forest road network.
- Alternative routes, identified for long term investment.
- Shared forest roads network,
- New forest road links,
- Industry adopted one way systems on public highways for timber haulage,

- Identity of key visibility issues on public highways.
- Trial for use of “central tyre pressure control”.

**Other solutions to consider will include the following:**

- i) Identify roads improvements required for sustainable round timber haulage on an agreed Preferred Routes Network.

Examples would include, widening of bends, creation of passing places, bridge improvements, improvements to visibility for all traffic, and information signage displaying presence of timber haulage.

- ii) Industry and highways authority agreed, temporary seasonal closure of public highway unclassified roads for timber haulage, unless written authority given to hauliers or forest owners specific to time bound operations. This solution would minimise heavy traffic during poor weather periods. E.g. November to February.
- iii) De-classify roads from current unclassified tarmac covered roads to convert to Class 1 forest type road, with a subsequent fixed charge for maintenance, to ensure the given road was “fit for purpose.” E.g. the current highway from Bron Helm bridge to Soar Y Mynydd chapel.
- iv) Establishment of an agreed protocol for resolving problems, as they arise, incorporating a reporting tool mechanism for non compliance with industry best practise, and roads decline issues.

**Partnerships.**

A potential partnership should be adopted between those interested parties of the FC, Private landowners, and respective forest management companies, in particular UPM Tilhill, along with each of the respective highways authorities in Carmarthenshire, Powys and Ceredigion.

Representation, to be invited, where appropriate, to include local hauliers, or a representative on their behalf.

This initial group would need to undertake active representation, and any outputs to be shared within the Wales Timber Transport Group, to use this project as a standard approach to other rural forest locations throughout Wales.

The primary group to include:

Carmarthenshire Highways Department.	Aled Evans. Network manager.
Ceredigion Highways Department.	Kevin Kirkland.
Powys Highways Department.	Gerad Hughes.
UPM Tilhill.	David Edwards.
Forestry Commission.	Neil Stoddart. District Forester Planning.
Forestry Commission Civil Engineer.	John Griffith. Area Civil Engineer.
A Haulier representative.	To Be Confirmed.

## **Recommendation.**

The concept plan identified in this report is recommended to be taken forward by the establishment of the local timber transport group for the South Cambrian Mountains’.

Topics of focus will include the following;

- Establish a best’ practise guidance, with a roll out of training and promotion amongst the local communities, to inform those directly and indirectly involved with round timber transport, and the associated communities.
- Establish a preferred routes network, accompanied by a survey of routes, to establish an improvement programme, to complement any future potential bids identified.
- Explore opportunities for funding, partnership co-operation, and industry investment proposals. To include the option to consider the private sector grant aid currently available to be utilised for ring fenced funding specific to preferred routes networks and partnerships identified.
- The local round timber haulage transport group to meet annually, to submit annual programmes of operations identified to local highways authorities, and establish a reporting tool mechanism within the group, and an agreed protocol to resolve problems.
- One partner within the group to act as lead partner, and submit a funding bid based on proposals of a 5 year rolling programme of operations’ identified, and within the scope of the rural development programme and sustainable rural industries identified within the Welsh Assembly Government strategies. *(This may be a role for “ConFor”).*

## **Appendix.**

1. Summary of Timber Production Flows from FC managed land in the Tywi and Irfon forest complex.
2. See map identifying FC forests, core forest roads network, and a preferred routes network.
3. References:

Forest District Design Plans, and Production Forecasts for the period 2011 to 2016.

The Timber Transport Toolkit. 5<sup>th</sup> Draft. August 2007.

Wales Forest Product Transport Mapping Project. Final Report.

Road haulage of Round Timber Code Of Practise. 2<sup>nd</sup> Edition 1998.

Welsh Freight Strategy. OCT 2007. WAG publication.

## Case studies – Pragmatic Approaches:

### Brenachoille. Re-specifying roads

The road serves a large forest, part of which is Forest Enterprise and part Argyll Estates. There are four domestic properties, one of which is a farm, and the road is about a mile long. The road is unclassified, and was originally surfaced, but lightly constructed, and possibly suffered from the problems of infrequent maintenance as do other such roads across the country, which are lower in the hierarchy. The council concluded an agreement with FE to maintain the road for a fixed term, for an annual charge, the road being converted to a class 1 Forestry-type, waterbound road as part of the agreement. This then provided the advantage to the forestry industry that the road was 'fit for purpose', was unlikely to be affected by weight restrictions and could be maintained as an extension of the internal road network.

We have regular meetings with the residents, who, by and large, are reasonably happy, but do have issues, centring round dust/dirty cars and similar.

A key problem is that many forest access roads are extremely lightly trafficked in national terms and do not sensibly meet the full standards of the national *Design manual for road and bridge works*. Departures from standards are likely to be required and a degree of judgement and pragmatism must be used when designing improvements if they are not to fail the basic value for money test.

The *Design manual for road and bridge works* provides the design and maintenance specification for motorways and trunk roads and is of limited value in the design and specification of LHA roads. There are no national standards for the design and maintenance of LHA roads. Notwithstanding the issue of design guidelines, less than 15% of LHA roads have benefited from a bona fide design procedure. The remaining 85% of the network has evolved over hundreds of years and continues to provide access to rural communities and isolated industrial activity. It is the maintenance and management of this element of the network that provides the greatest challenge for local authority engineers whose ultimate aim is the achievement of a network that is fit for purpose and sustainable (political, environmental, social, technological, economic, legal).

Good roads, fit for timber haulage, can be built for 10-20% of the cost of an equivalent public road.

Where reconstruction is necessary, then modern design codes of practice can be utilised and cost savings on more traditional construction methods achieved. However, there are key differences between these networks (i.e. between LHA and haul roads), for example, the higher design speed and the requirement to provide 'in-service skid resistance' on the LHA network. Nevertheless, where haul roads are identified on elements of the LHA unsurfaced unclassified road network, then best practice between industries should be shared.

## Lancashire – Bowland Forest

Block of P.70-72 Sitka spruce ca. 200ha, located to North of Trough of Bowland, Lancashire. Access via a minor country road. Crops were thinned in mid 1990s and extracted by small timber lorries via a moorland road.

When clearfelling was due to commence in 2004, Lancashire County Council Highways department was consulted, as the moorland route, used previously, now had a weight restriction on it.

The alternative route was to use the valley road, but access was restricted by three narrow bridges and their approaches.

The problem was solved by acquiring small sections of land from adjoining landowners to improve the bridge approaches. The council did the work themselves and adopted the revised road alignment.

This allowed the clearfelling to commence in summer 2006.

Access is restricted to 6/8-wheeler and drag lorries, as there is a fourth bridge several miles downstream that could not be adapted to enable articulated lorry access.

The woodland owner made a contribution to the cost of the improvement works, and the council carried out all of the design, specification and supervision of the operations.

## Wales: The C002 Abegwesyn – Tregaron road

### Damage to Rural Roads

Nant-Yr-Hwch at 1600ha is the largest private forest in Wales and having been planted in the 1960s is now in full production with an out-turn this year (2004) in excess of 80,000 tonnes. The forest is partly divided by an unclassified county road, which, as well as being an important tourist route between Abergwesyn and Tregaron, is the only road serving 25% of the complex. Recent clearfells have increased timber traffic, but timber has been hauled across this road for more than 20 years since thinning first started.

In the summer of 2004, Powys County Council identified serious damage was being done to the road, which they attributed to timber wagons and sought to recover more than £65,000 towards repairs. When this request was declined on the basis that forestry was a legitimate rural industry with a right to use the highway, the Council responded with the threat of imposing an 18-tonne weight limit over seven km of road. This restriction would have immediately brought harvesting operations to a halt, threatening jobs and investments by effectively land-locking a substantial area of commercial forest.

It was at this stage that the Welsh Timber Transport Group (WTTG) became involved. It is an organisation set up under the auspices of the Timber Transport Forum with members drawn from local authorities, timber growers, hauliers, Welsh Assembly Government and the Forestry Commission Wales. The WTTG was established to resolve conflicts between timber haulage, other road users, local communities and highway authorities. Resolution of this issue was the first real test of the WTTG and through negotiation a settlement was agreed.

The solution was to upgrade 1500 m of the road vital to forest operations and to prohibit timber lorries from the remaining length. The cost is being borne by the council but the forest owners are contributing in kind by allowing stone to be quarried from within the forest and facilitating roadside drainage. Such solutions are not going to be practical or affordable in all situations where forest interests find themselves in conflict with highway authorities. The way forward is to identify "preferred routes" in order that limited resources can be concentrated on maintaining and repairing roads of strategic importance with timber traffic being managed. The WTTG has a key role in identifying these preferred routes. A failure to deliver will lead only to more conflict with highway authorities as, not only does timber output increase, but the proportion produced by the private sector overtakes that of FC and commercial reality begins to bite harder.

## Ayrshire Timber Transport Group webpage. Introducing Agreed Routes

[www.south-ayrshire.gov.uk/roads/timber.htm](http://www.south-ayrshire.gov.uk/roads/timber.htm)

### Introducing Agreed Routes

Rapidly increasing timber harvest will have a significant impact on the rural road network, which can best be managed by early planning. Data has been collected to provide the basic information for the development of voluntary 'Agreed Routes'. The aim is to keep timber traffic off the most vulnerable roads by directing it along stronger routes. The information gathered has been used to help inform council planning and spending on roads upgrading and maintenance. Agreed Route Maps have been developed by Regional Timber Transport Groups throughout Scotland.

Download the Timber Transport Strategy (988KB)

[www.south-ayrshire.gov.uk/roads/publications/Timber%20Transport%20Strategy.doc](http://www.south-ayrshire.gov.uk/roads/publications/Timber%20Transport%20Strategy.doc)

### Preparing the Agreed Routes Map

The route agreements are based on information collected in a survey carried out for the Ayrshire Timber Transport Group. Outgoing volumes of timber were estimated with locations and proposed direction of timber movement identified for each timber exit point. The survey included woodland in public and private ownership. Forestry Commission Scotland then produced Timber Extraction Maps showing the estimated timber extraction forecast. The Ayrshire Timber Transport Group then used the Timber Extraction Maps, along with technical data and local knowledge, in order to establish a draft routes classification.

Following extensive consultation with all interested parties, including the public, the Ayrshire Agreed Routes Map for Timber Transport has been finalised. Forestry Commission Scotland has provided a GIS version of the Agreed Routes Map and a CD-ROM version has been produced. The map was launched by Allan Wilson MSP, deputy minister for environment and rural development on 24 February 2003 at Dunaskin Heritage Centre, by Patna.

Copies of the Agreed Routes Map are placed in Forestry Commission conservancy offices, Forest Enterprise district offices and the operational offices of East, North and South Ayrshire Councils. You may download the Agreed Routes Map in [Pdf Format \(2,534 Kb\)](#) or [Image Jpg Format \(505 Kb\)](#). You can also use this [form](#) to request a publicity leaflet which has the map printed on it.

[www.south-ayrshire.gov.uk/roads/timber.htm#reqform](http://www.south-ayrshire.gov.uk/roads/timber.htm#reqform)

All Agreed Routes Maps can be downloaded from the Timber Transport Forum website. [www.timbermap.org](http://www.timbermap.org)

## **Using the Agreed Routes Map**

A route agreement is voluntary, but has the support of timber industry representative organisations, Forestry Commission, East Ayrshire Council, North Ayrshire Council and South Ayrshire Council as a basis for minimising problems arising from timber haulage on public roads.

The Ayrshire Timber Transport Group will always welcome consultation about timber haulage plans.

It is the responsibility of the owners to contact the relevant local authority to determine the status and availability of particular roads. Weight and length restrictions on roads are not shown and users of the maps are responsible for ascertaining whether or not routes are unrestricted. The owner (or agent) should then advise potential purchasers of any restrictions on requirements relating to the preferred haulage route; this may include a request that harvesting managers contact the local authority to consult with it on the proposed timing of operations.

## **Revising the Agreed Routes Map**

The map will be formally updated and re-issued annually or when significant changes take place. Amendments to the Agreed Routes Map will be determined by the Ayrshire Timber Transport Group Operational Group. The Ayrshire Timber Transport Group takes responsibility for informing Forestry Commission of changes and will maintain a register of changes.

## **Road Classification**

The following definitions are used to classify roads:

- **Agreed Routes:** Those routes that can be used for timber haulage without restriction as regulated by the Road Traffic Act 1988.
- **Consultation Routes:** Those routes that are recognised as being key to timber extraction but which are not up to Agreed Route standard. Consultation with the local authority is required and it may be necessary to agree limits of timing, allowable tonnage etc. before the route can be used.
- **Severely Restricted Routes:** Those routes that should not normally be used for timber transport in their present condition. These routes are close to being Excluded Routes. Consultation with the local authority is required to achieve an agreed management regime to avoid land-locking of timber.
- **Excluded Routes:** Those routes that should not be used for timber transport in their present condition under any circumstances. These routes are either formally restricted, or are close to being formally restricted, to protect the network. Consultation with the local authority is essential.

## **A.T.T.G. Partnering Charter**

The Charter was signed by a representative of each member of the group at County Buildings, Ayr on 01 October 2003. The Charter represents a commitment to co-operation between the partners and continuous improvement for road users and residents in Ayrshire.

## Case studies – Technical Approaches:

### Scottish Borders Local Area Modelling Assessment.

External consultants were appointed in February 2003 to undertake research into timber flows in the Borders region and to produce a GIS-based solution, clearly indicating the estimated movement of un-processed timber for the years 2006 and 2015 in terms of tonnage along road, rail and sea network links for a given set of pre-stated infrastructure investment scenarios:

- No investments in road, rail or sea;
- Re-open the whole of the Waverley route from Edinburgh to Carlisle including the spur from Riccarton to Kielder. Prior to completing this scenario, a short optimal location exercise to determine the best location of railhead will be completed. A railhead within Kielder will be included. Freight multiple units and line-side loading is assumed along some sections of rail;
- Add a red log/small round wood processing plant within the Scottish Borders. Prior to completing this scenario, a short optimal location exercise to determine the best location of processing plant will be completed.

The Borders Local Area Modelling Assessment (LAMA) was completed examining only pure timber movements for the years 2006 and 2015 using the neutral demand and supply scenario development in the Scottish forest mapping project. Existing supply and demand were assessed and brought up to date and a number of supply points added to the existing Timber Growers Association (now ConFor) supply database. The LAMA was also completed with an integrated internal forest road network and network road costs were developed using the Agreed Routes classification.

The Geographical Information System (GIS) and demand modelling methodologies previously developed as part of the Scottish forest mapping project were extended to the Borders LAMA, but new elements were included to improve the assessment of the above scenarios. This included selecting the optimal location of a sawmill and a railhead using GIS techniques and the inclusion of line-side facilities. The technical document details fully the methodologies adopted.

The LAMA exercise was intended to provide policy-makers and decision-makers with a more fine-grained analysis of timber movements, infrastructure investment options and impacts, than was possible with the strategic study. As such, the Borders LAMA has proved a very effective analytical tool. The inclusion and update of many new local timber exit points and the enhancement of the road network level of detail have contributed substantially to creating a picture of timber volumes on transport infrastructure which is truly local, and far more relevant to the local authority highways staff than previously available. The results of the Borders LAMA have been very encouraging:

## Grampian timber flow mapping

A study of projected timber production and flows in Grampian has proven to be very successful and is likely to be of great benefit to the industry. Efforts to improve the efficiency of timber transport are flagged up as a priority area in the new Scottish Forestry Strategy.

The study was commissioned by the Grampian Timber Transport Group and undertaken by Claire Glaister of Rural Development Initiatives. A seminar was held in Aberdeenshire on 03 November, to which Grampian Timber Transport Group invited those who had contributed and the relevant council representatives.

Interviewing managers and agents about their own predicted harvesting programmes, data was collected and displayed to show projected volumes of timber production and haulage both over time and by road network. Information was collected for annual harvesting over the next five years and in five-year periods for the subsequent 10 years. This data facilitates the update of the Agreed Routes Map for Grampian and allows Moray and Aberdeenshire Councils to prioritise works on public roads to accommodate forecast timber traffic. It can also be used to support collaborative planning and working between growers and other industry partners. Infrastructure issues arising can now be identified and bids developed for submission into the Scottish Strategic Timber Transport Scheme.

John Risby, chairman of the Grampian Timber Transport Group was delighted with the report, saying, “This study was successful largely due to the collaboration and input of the industry in making information available. This information will help ensure that timber transport issues in the region can be planned for in advance of felling, allowing the council to allocate budgets appropriately. There are real benefits to be derived from the industry working together for mutual advantage of everyone in the supply chain.”

## Principles of unbound road design

An Annex to the “Timber Transport Toolkit” entitled “Principles of unsealed road design” deals with the design and use of the structural pavement of unsealed roads. It does not cover the financial appraisal, planning, consultation, construction and maintenance of the road. Neither does it cover road layout, however, for reference purposes, the Forestry Commission *Road specification summary* is included at Appendix 1 of the document.

## Sources of information

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## Timber Transport Forum and Regional Timber Transport Groups

Agreed Routes: [www.timbermap.org](http://www.timbermap.org)  
Timber Transport Forum: [www.timbertransportforum.org.uk](http://www.timbertransportforum.org.uk)  
Timber Transport Groups: [www.confor.org.uk/timber\\_transport/pages/regional\\_groups.asp](http://www.confor.org.uk/timber_transport/pages/regional_groups.asp)

## Roads and road engineering

### Freight Quality Partnerships :

Freight quality partnerships case studies - A guide on how to set up and run FQPs (pdf).

[www.freightbestpractice.org.uk/default.aspx?appid=2011&search=FQP](http://www.freightbestpractice.org.uk/default.aspx?appid=2011&search=FQP)

Establishing Freight Quality Partnerships: A Guide for Regional Transport Partnerships and Local Authorities

[www.scotland.gov.uk/Publications/2006/04/19092035/9](http://www.scotland.gov.uk/Publications/2006/04/19092035/9)

**ROADEX:** Road network management and maintenance for low traffic volume roads in the northern parts of Europe - [www.roadex.org](http://www.roadex.org)

## Involving communities and approaches to consultation

### Community involvement in private woodlands :

[www.forestry.gov.uk/pdf/fcfc109.pdf/\\$FILE/fcfc109.pdf](http://www.forestry.gov.uk/pdf/fcfc109.pdf/$FILE/fcfc109.pdf)