Transporting Timber; an Introduction

Scotland’s forest and timber industries provide around 26,000 full time equivalent jobs and contribute in the region of £1bn to the Scottish Economy (0.8% Scottish GVA). The sustainable forest management practices adopted across Scotland’s forests and woodlands not only produce timber and wood products but also deliver 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.

Forestry Commission Scotland serves as part of the Scottish Government’s Environment and Forestry Directorate and is responsible to Scottish Ministers, advising on and implementing forest policy and managing the National Forest Estate as regulated by The Forestry Act 1967. Forestry Commission Scotland regulates new woodland creation and the removal of trees through the issue of grants for planting and managing woodlands and the approval of felling licences to fell trees.

The grants and licences issued by Forestry Commission Scotland encompass activities undertaken within the woodland or forest area; they do not extend to the transportation of timber or other forest products on the public road network.

Transporting logs from the forest is an essential part of the wood supply chain and many millions of tonnes of logs are transported on the public road network each year. This home-grown timber is especially valuable in reducing “timber miles” as it substitutes for imports from around the world.

Responsibility for managing the public road network, including carriageways, footways, bridges and drainage systems but excluding trunk roads, falls on Local Authorities under the Roads (Scotland) Act 1984. In order for Local Authorities to meet their responsibilities for maintaining the road network and ensuring the safety of all who use it, they have powers to apply certain regulations, restrictions and limits through Traffic Regulation Orders (TROs). Weight limits, for example, can be introduced to prevent damage to weak roads and bridges or where there are concerns that heavy goods vehicles could damage the structure of narrow rural roads by over-running onto the road verges.

Timber haulage sometimes involves using roads which were not primarily designed for traffic of this nature. In order therefore to ensure that any timber being carried on our roads is transported in accordance with agreed principles and protocols, representatives from Forestry Commission Scotland, Local Roads Authorities and the forest industry have come together to form a voluntary network of Regional Timber Transport Groups and a UK-wide Timber Transport Forum. The Good Practice developed by these fora has been developed in a spirit of partnership to sustain the network and allow access by the majority of users.

Collectively, the Timber Transport Forum and Regional Timber Transport Groups and their respective members, have delivered significant benefits to the timber transport sector; one most notable outcome being the development of Agreed Route Maps.

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1 The Scottish Parliament is currently considering the Forestry and Land Management (Scotland) Bill which, once enacted, will replace the 1967 Forestry Act as the statutory framework for the management of forestry in Scotland.
Agreed Route Maps

Agreed Route Maps are the primary working document for use by all involved in timber haulage. They categorise the public roads serving forested areas in relation to their capacity to sustain standard fully loaded timber haulage vehicles. Roads are classified as either “Agreed Routes”, “Consultation Routes”, “Severely Restricted Routes” or “Excluded Routes” with these classifications providing an indication of the likelihood that mitigation may be required to avoid damage to the network by timber haulage operations.

“Agreed Routes” are generally the Council “A Class” network, together with some “B Class” routes, with a few exceptions for areas of limited structural capacity and other lower-class routes where substantial strengthening has been carried out. The majority of B and C Class routes are designated as “Consultation Routes” where some restrictions on haulage may be required to prevent damage to the road.

Agreed Route Maps are live documents and are amended on a regular basis as changes in the condition of the public road network dictate or as alternative routes are created.

Road classifications

The following definitions are used to classify roads on Agreed Route Maps:

- **Agreed Routes:** Those routes which can be used for timber haulage without restriction other than as regulated by the Road Traffic Act 1988. “A” roads (e.g. the A9) are classified as Agreed Routes unless covered by one of the other TTG classifications (e.g. Consultation Route)

- **Consultation Routes:** Those routes which are recognised as being key to timber extraction but which are not up to Agreed Route standard. Consultation with Local Authority is required and it may be necessary to agree limits of timing, allowable tonnage etc. before the route can be used. B roads and minor roads are classified as Consultation Routes unless covered by one of the other TTG classifications (e.g. Severely Restricted Route).

- **Severely Restricted Routes:** Those routes which should not normally be used for timber transport in their present condition. These routes are close to being Excluded Routes and consultation with the Local Authority is required to achieve an agreed management regime to avoid land locking of timber.

- **Excluded Routes:** Those routes which should not be used for timber transport in their present condition. These routes are either formally restricted, or are close to being formally restricted, in order to protect the network from damaging loads. Consultation with the Local Authority is required to explore alternatives.

Where Routes are “Excluded” these are generally where:

- The structural capacity of the route is limited. This may include routes where a weight restriction traffic order exists
- There are alternative routes of a suitable nature to take traffic
- There are local community considerations on the movement of heavy haulage at high frequency
Protocols and Guidance

The Timber Transport Forum and Regional Timber Transport Group network encourages a partnership approach in managing timber transport; a key element of which is consultation. Good practice for example, would see a forest owner or agent liaising with the Local Authority prior to any haulage operations taking place in order to consider the status of the road network and potential impact on local communities.

More specifically, when considering timber haulage on routes other than those classified as “Agreed Routes”, consultation between the forestry agent/manager and the Local Authority should be held in advance of any timber haulage operations to agree acceptable conditions of haulage which should avoid damage to or deterioration of the public road network.

The Timber Haulage Protocol described in Figure 1. Timber Haulage Protocol below sets out the recommended procedures for notifying the Local Authority of the intent to harvest timber and transport it to market over the public road network; these procedures primarily being used to agree to sustainable levels of haulage and monitoring of conditions whilst operations are underway. It also highlights who should be responsible for the key steps in terms of the Duty Holder roles described in the Guidance on Managing Health and Safety in Forestry publication.

As well as this overarching guide, more specific guidance relating to consultation requirements for individual route classifications is provided in Figure 2. Advisory Traffic Management Conditions below.

In addition, and where vulnerable roads are proposed for timber haulage, a Timber Traffic Management Plan [TTMP] may be considered in advance of any haulage operations so that the forest owner, purchaser, harvester and haulier are all aware of their responsibilities to manage haulage movements in a manner which should ensure the sustainability of the road network and minimise any economic effects of the operation. Further details on Timber Traffic Management Plans are provided below.

PLEASE NOTE:

The information contained in the Timber Haulage Protocol and Advisory Traffic Management Conditions is provided for guidance only and should not be taken as a substitute for liaising with the Local Authority throughout the haulage operation.

Furthermore, as Local Authorities may adopt different design standards and follow individual local preferences, reference should always be made to the relevant Council in order to establish specific requirements.
TIMBER HAULAGE PROTOCOL

1. Before Forest Plans or Felling Licence applications are submitted to Forestry Commission Scotland:

The Landowner liaises with the Local Authority over possible timber transport requirements on Consultation, Severely Restricted and Excluded routes. Prior notification is also encouraged on Agreed Routes to ensure compliance with standard Timber Management Conditions.

Traffic Management Plans are developed where appropriate.

Contact Details
Aberdeenshire Council: 0845 608 1207 (ask for Infrastructure Services)
Angus Council: 0845 277 7778 (ask for Roads division)
Clackmannanshire Council: 01259 450 000 (ask for Roads & Transportation)
Moray Council: 01343 543451 (ask for Transportation)
Perth & Kinross Council: 01738 475 000 (ask for Transport & Streets)
Stirling Council: 0845 277 7000 (ask for Roads Improvement & Development – Network Management)

2. Scoping meetings

Formal scoping meeting are held for Forest Enterprise Scotland Land Management Plans and private sector Forest Plans and provide Local Authorities with an opportunity to have early input into any timber transport issues associated with the outline plans. This helps the Local Authority to identify issues of concern and to plan future road maintenance programme, where practicable.

Forest Design Plans and individual felling licence applications should include issues raised by the Council regarding timber haulage on the public road or copies of Timber Traffic Management Plans, where these have been agreed or are in place.

3. Consent for civil engineering works

Consent is required to form a new access or to carry out any civil engineering works on or adjacent to a public road. Contact the Local Authority Roads Service or the Trunk Road Authority, Transport Scotland.

4. Planning Permission

Planning Permission is required from the Local Authority Planning Service or National Park Authority (for areas within National Park boundaries) for any proposal to form a new forest access onto a classified public road.

5. Forestry Commission Scotland approves Forest Plan or Felling Licence applications.

Forestry Commission Scotland consults with the Local Authority on Forest Plans and Felling Licence applications to seek comment. Forestry Commission Scotland issues approval of a Felling Licence application taking cognisance of information provided.

5. Prior to harvesting operations

The Landowner or Forestry Works Manager should re-establish contact with the Local Authority Roads Service when timber harvesting/haulage operations are being planned and before the timber is sold.

After the timber is sold but before haulage commences, liaison should continue between the Local Authority Roads Service and the Forestry Works Manager (the timber purchaser or their harvesting agent). This will involve agreeing to the implementation of any measures required to address road limitations and to monitor road conditions, or to deliver the requirements of a Timber Traffic Management Plan, where this has been put in place.

Figure 1. Timber Haulage Protocol
<table>
<thead>
<tr>
<th>Route Classification</th>
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| Agreed               | Routes which can be used for timber haulage without restriction other than as regulated by the Road Traffic Act 1988.  
“A” roads (e.g. the A9) are classified as Agreed Routes unless covered by one of the other TTG classifications (e.g. Consultation Route) | ▪ All timber haulage operations should comply with [The Road Haulage of Round Timber Code of Practice](#) and [Loading Timber from Roadside Forests](#) (see also example [Timber Operations on or adjacent to Public Roads](#) developed by the Argyll Timber Transport Group)  
▪ When using an existing forest access, the bellmouth onto the public road must be well formed and suitable in terms of horizontal and vertical alignment to allow safe access and egress. For new accesses onto the public road, liaise with relevant Local Authority to establish specific requirements (see also example [Forest Access Road specification](#) from Argyll & Bute Council)  
▪ Arrangements must be put in place to monitor and maintain the condition of the forest access, ensuring no flow of water onto the public road and no mud or debris is transferred onto the public road  
▪ Any deterioration of the Local Authority part of road surface observed by hauliers should be notified to the Council as soon as possible (see phone numbers above) |
## Route Classification

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| Consultation         | Routes which are recognised as being key to timber extraction but which are not up to Agreed Route standard. Consultation with Local Authority is required and it may be necessary to agree limits of timing, allowable tonnage etc. before the route can be used. B roads and minor roads are classified as Consultation Routes unless covered by one of the other TTG classifications (e.g. Severely Restricted Route). | - All timber haulage operations should comply with *The Road Haulage of Round Timber Code of Practice* and *Loading Timber from Roadside Forests* (see also example *Timber Operations on or adjacent to Public Roads* developed by the Argyll Timber Transport Group)
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- Any deterioration of the Local Authority part of road surface observed by hauliers should be notified to the Council as soon as possible (see phone numbers above)

In addition, other mitigating measures **may be required**, including, where relevant, the development of *Timber Traffic Management Plan* for specific route/s (see also below); these covering:

- **Seasonal restrictions** – avoiding very wet periods and the worst of the winter freeze/thaw effects
- **Reduced frequency of loads** – usually to allow the road to recover between lorry passes thereby avoiding cumulative damage but may also have a social aspect in reducing disruption to local communities (e.g. avoiding school transport times) |
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<td>▪ <strong>Axle weight restrictions</strong> – associated with multi wheel configurations; under-loading traditional trailers; use of secondary loading points adjacent to agreed routes; forwarding full capacity loads as a 2-stage operation</td>
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<td>▪ <strong>Reduced ground pressures</strong> - use of twin tyres or wide ‘maxi’ tyres on fragile roads together with tyre pressure control systems that spread the load across a greater surface area so reducing the impact on thin construction depth surfaced roads and the sub grades (see also Tread Softly; Lower impact vehicles for timber haulage)</td>
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- When using an existing forest access, the bellmouth onto the public road must be well formed and suitable in terms of horizontal and vertical alignment to allow safe access and egress. For new accesses onto the public road, liaise with relevant Local Authority to establish specific requirements (see also example [Forest Access Road specification](#) from Argyll & Bute Council)

- Arrangements must be put in place to monitor and maintain the condition of the forest access, ensuring no flow of water onto the public road and no mud or debris is transferred onto the public road.

- Any deterioration of the Local Authority part of road surface observed by hauliers should be notified to the Council as soon as possible (see phone numbers above)

In addition, other mitigating measures may be required, including, where relevant, the development of [Timber Traffic Management Plan](#) for specific route/s (see also below); these covering:

- **Seasonal restrictions** – avoiding very wet periods and the worst of the winter freeze/thaw effects

- **Reduced frequency of loads** – usually to allow the road to recover between lorry passes thereby avoiding cumulative damage but may also have a social aspect in reducing disruption to local communities (e.g. avoiding school transport times)
| Severely Restricted (cont.) | ▪ **Driver education** and awareness of effects of heavy vehicles on weak roads – speed restrictions when fully loaded  
▪ **Vehicle and trailer configurations** – use of “Wagon and Drag” trailers (rather than full length articulated trailers) with improved swept paths on narrow twisting roads to minimise edge damage and resultant drainage problems; tractor and trailer units for short hauls to secondary loading points  
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| Excluded             | Routes which should not be used for timber transport in their present condition. These routes are either formally restricted, or are close to being formally restricted, in order to protect the network from damaging loads. Consultation with the Local Authority is required to explore alternatives. | - Route should not be used for timber transport  
- Consult with Council to explore alternative routes |
**Timber Traffic Management Plans**

Timber Traffic Management Plans (TTMPs) are voluntary arrangements which have been developed to sustain timber haulage on the most vulnerable roads, particularly those routes currently classified as “Severely Restricted” on Agreed Route Maps.

TTMPs are developed through consultation between the Regional Timber Transport Group and Local Authority Roads Asset Manager/s to ensure that reasonable access to the public road network can be maintained for the forestry owner and their neighbours. A TTMP will include the date and names of all contributing parties.

An interim TTMP can, if appropriate, be agreed between the Local Authority and a particular forest manager/agent prior to the submission of any forest plan/s or felling licence application/s to Forestry Commission Scotland. Although developed initially by these two parties, the interim TTMP would subsequently apply to all timber haulage on the route and should be reviewed by the Regional Timber Transport Group.

All timber haulage road users will be expected to accommodate the TTMP that has been developed for the route. This will require a degree of liaison when harvesting operations are likely to overlap.

Individual Timber Transport Management Plans for specific roads can include some or all the mitigating measures listed in Figure 2. Advisory Traffic Management Conditions above. The following example developed by the Argyll Timber Transport Group is provided for additional guidance.
Pre-conditions for the use of U10 Ardmaddy Rd from Auchnasaul to Ardmaddy Castle entrance

The following schedule relates to the sensitive Council road U10 from Auchnasaul to Ardmaddy. The plan is to protect this narrow road and verges and preserve it for the use of local residents, agriculture and forestry. Notification to the council roads department of the intent to start haulage operations must be made one month in advance of commencement.

- **Duration:** Operations are planned to be completed over 3 year duration, 2012-2014. Timber haulage on this road should only occur from April - October avoiding the winter period and at no more than the scheduled rate of despatch. This means that if for any reason, any timber remains after that date, there should be further consultation with the Roads Dept prior to its movement, at a further reduced rate if necessary;
- **Rate:** At the programmed rate of production, haulage shall not exceed 15 loads per week or 3 loads per day;
- **Frequency:** The minimum time between loads leaving the forest will be 30 minutes. Due consideration must be given to avoiding opposing Timber Traffic on U10 at all times;
- **Lorry Configuration:** Only Wagon and Drag configurations with six wheel trailer and double or “maxi-tyre” configuration, up to a maximum loaded weight of 44 tonnes are permitted. **Vehicles equipped with CTI are preferred, for timber haulage on this road;**
- **Driver Awareness:** Drivers involved with the haulage must be familiar with the nature of the road and should have read and be in possession of this management agreement, prior to operating on this route;
- **Speed Limit:** On the unclassified section of road from Ardmaddy to where it meets the B844 at Auchnasaul the maximum speed (loaded or empty) will be **20 mph.** This may be reduced to 15 mph during excessively wet periods;
- **Monitoring:** Road conditions are subject to regular inspection by Council staff during the period of operations. Parallel inspections by the ATTG Project Officer will be carried out when practicable. Any deterioration of the road surface observed by interested parties (haulers, land owner, agents etc.) should be notified to the local Council Roads Operations Office as soon as practicable.

The purpose of this local agreement is specifically to ensure that reasonable access is maintained for the Forestry Owner, and their neighbours, but in a sustainable fashion, in accordance with regional and national forest strategy.

Prepared by ATTG/Council
Callum Robertson, Roads Asset Manager
Kirsty Robb, ATTG Project Officer
29th August 2011
It is advisable that all parties are actively involved in ensuring that the requirements of a Timber Traffic Management Plan are fulfilled. The Regional Timber Transport Group can offer to play a role in monitoring or reviewing the TTMP, where required.

If, despite the mitigating measures contained in a TTMP, road conditions deteriorate beyond acceptable levels, a more stringent scheme will be devised and implemented as prevailing conditions dictate. Conversely, where improvements are made on a route, this may enable the relaxation of some measures or removal of the need for a TTMP altogether.