

# Maintaining Scotland's roads

Key messages / Prepared for the Auditor General for Scotland and the Accounts Commission November 2004



# Key messages

## The study

This report looks at the condition of roads in Scotland and how councils and the Scottish Executive manage road maintenance. The 3,500 kilometre motorway and trunk road network is managed by the Executive. The remaining 51,000 kilometres of other public roads are maintained by Scottish councils. Demands on the road network are increasing. Between 1993 and 2003, traffic increased by 18% and the number of vehicles licensed by 27%.

Road maintenance has to be managed in the context of wider transportation strategies. These must balance a range of demands and public expectations – improving public transport provision, improving safety, keeping the road network open during the winter and in extreme weather conditions.

## Main findings

### 1 The condition of Scotland's roads

The first repeatable survey of Scottish road conditions suggests that 13% of Scotland's roads should be considered for repair now and a third require further investigation...

The Scottish Road Maintenance Conditions Survey (SRMCS) found that almost 90% of motorways and trunk road dual carriageways are in an acceptable condition (a 'green' rating) compared to around two-thirds of A roads, 55% of B roads and 49% of unclassified roads (Exhibit 1). According to the survey, around 7,100 kilometres of Scotland's roads ie, 13% of the total network should be considered for repair; around 4,400 kilometres (63%) of this total are unclassified roads.

Exhibit 2 (page 3) shows the variation in the condition of the road network in Scottish councils. In the majority of councils, between 10% and 20% of roads require repair, with a further 30-40% requiring investigation. In four councils, East Renfrewshire, City of Edinburgh, Inverclyde and Stirling, more than 20% of the road network has deteriorated to a point at which repairs to prolong future life should be considered. In five councils, less than 8% have deteriorated to this extent. This is often considered by roads engineers to be the threshold between having a well-maintained network and having a maintenance backlog, suggesting that the remaining 27 councils are likely to have a maintenance backlog.

Because this is the first repeatable survey of the condition of the road network, it is not yet possible to say authoritatively whether road conditions are improving or worsening.

### 2 The maintenance backlog

Councils estimate the cost of eliminating their road maintenance backlog to be around £1.5 billion, including £900 million for road repairs – but the method of calculating this figure needs to be refined. The Executive has a trunk road maintenance backlog of £232 million.

From existing information, it is not possible to estimate the cost of bringing the road network up to a recognised standard. Councils have reported that eliminating their road maintenance backlog would cost around £1.5 billion, including £900 million for road repairs. This figure is based on a sample survey of roads and may change as more data becomes available and the method of calculating the backlog is refined.

The Executive, using more detailed information than that available from the SRMCS, has calculated that the structural maintenance backlog for trunk roads is around £100 million, with a further £72 million required for routine repairs and £60 million for bridges.

### 3 Spending on road maintenance

Spending on council-maintained local roads fell sharply during the mid-1990s and revenue expenditure is still below the 1994/95 level; spending on trunk roads also fell but has recovered...

Exhibit 3 (page 4) shows that trunk road maintenance expenditure, although falling initially, has broadly kept pace with traffic growth, while council expenditure on local roads has fallen behind. It is difficult to link expenditure data to road conditions in Scotland as condition data has only recently been made available.

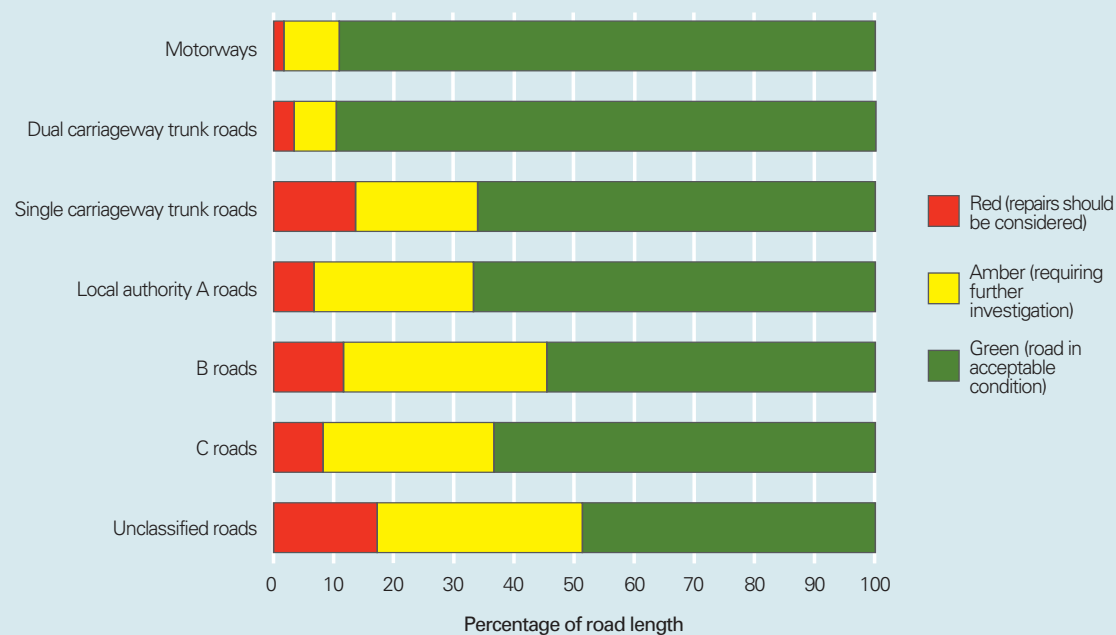
Overall, £404 million of revenue expenditure was spent in Scotland on road maintenance in 2002/03. The Executive spent £127 million on trunk road maintenance via the trunk road operating companies. Scottish councils spent some £277 million of revenue expenditure on maintenance (including lighting).

Structural maintenance designed to prolong the life of a road comprises 37% of councils' revenue expenditure on roads, although this proportion varies from 3% to over 70%. The Scottish Executive spends about half (48%) of trunk road expenditure on structural maintenance, a similar proportion to England and Wales (50%). Because councils' budget-setting procedures give priority to areas such as winter maintenance and routine maintenance, decisions to reduce roads expenditure have fallen mainly on structural maintenance (which helps keep roads in good condition).

## Exhibit 1

The condition of roads in Scotland as a percentage of road length in 2003/04

Higher classes of road tend to be in better condition.



Source: Scottish Executive, Scottish Road Maintenance Condition Survey (SRMCS)

In some Scottish councils there has been a considerable increase in capital expenditure on road maintenance – structural maintenance has risen from £7 million in 1993/94 to £19 million in 1998/99 and £44 million in 2002/03. All councils need an objective assessment of the structural maintenance requirements of their network and the level and balance of funding that best meets their needs. Expenditure on roads – including capital expenditure – should be based on effective option appraisal process and asset management planning.

### 4 Improving the management of road maintenance

The trunk road operating companies have completed three years of contracts with good performance. Councils should establish a long-term strategy for road maintenance in the overall context of their transportation and asset management strategies. They also need to work together to

achieve economies of scale and improve their information through better use of IT.

Trunk road maintenance is planned by the Executive but the work is undertaken under contract. In February 2001, the Executive entered into contracts with two companies (BEAR Scotland Ltd and Amey Highways Ltd) for the management and maintenance of the trunk roads in Scotland. Overall, the trunk road operating companies have completed three years of contracts with good performance throughout their operations. There were, however, a few aspects of performance where the operating companies needed to improve, such as in the application of their management systems and some problems with IT.

All councils in Scotland have a duty of Best Value and they are required to have regard to accepted guides or codes of practice. The accepted code of practice for road maintenance was published in 2001 and is endorsed by all of the main UK public bodies

involved in road maintenance. The Code is currently being revised with a view to being reissued in 2005.

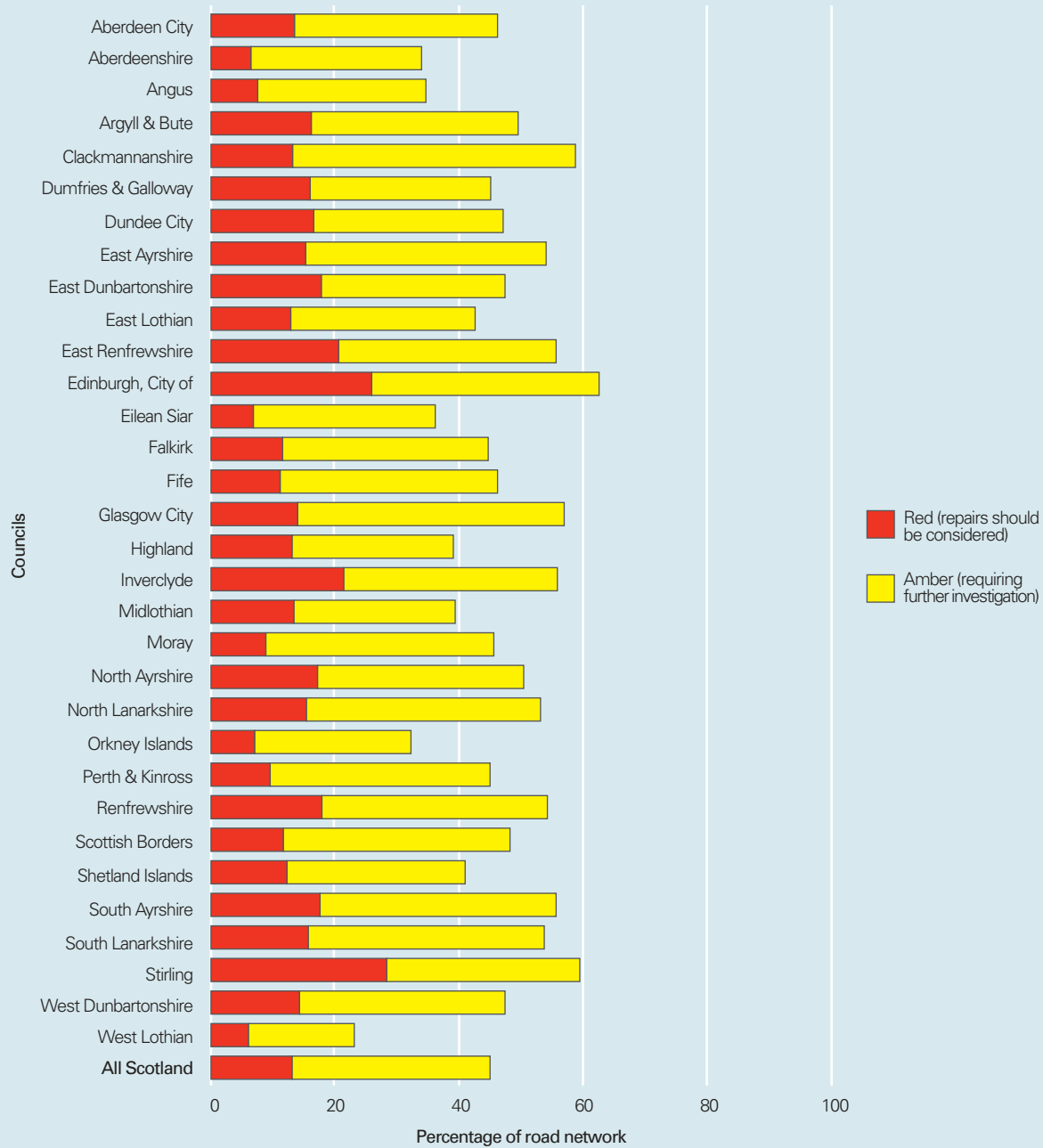
Many councils could improve their planning of structural maintenance and in addition many roads trading operations which are not large enough to purchase and make economical use of specialist equipment to undertake large road maintenance contracts. Smaller councils are less able to afford the overheads associated with purchasing and maintaining IT systems, such as asset management systems and geographical information systems (GIS), which can help deliver better value for money.

The Executive has good inventory information on the number and condition of almost all trunk road assets and is currently implementing a comprehensive asset management system. However, many councils have not yet developed up-to-date electronic inventories of the number and condition of roads assets to support the allocation of maintenance expenditure.

## Exhibit 2

### Road condition in each council in 2003/04

In many councils, between 10% and 20% of the road network is in need of repair, but in some the proportion is higher.

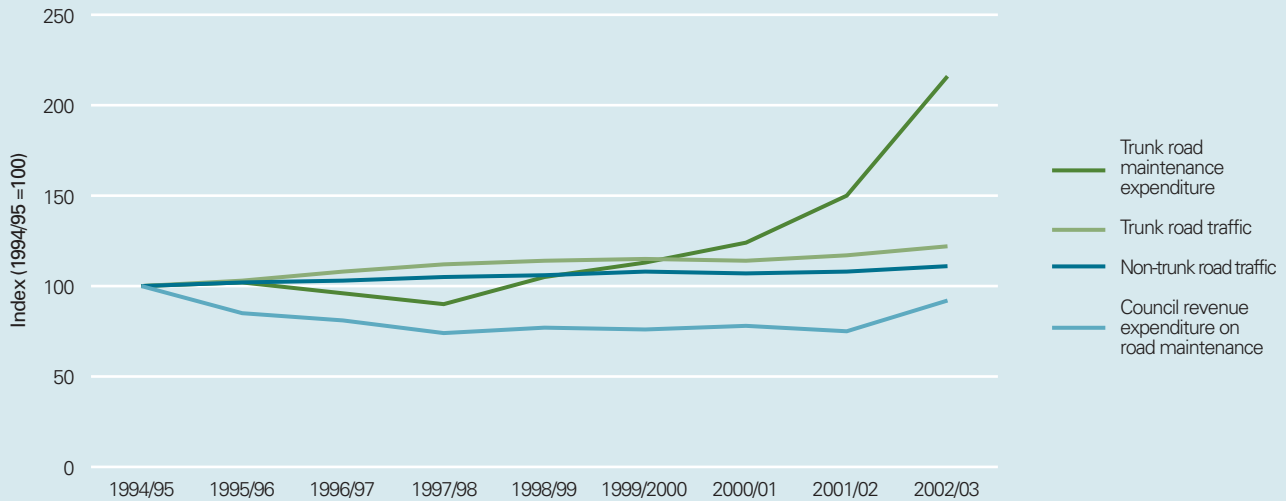


Source: Scottish Road Maintenance Condition Survey (SRMCS)

## Exhibit 3

### Trends in road maintenance expenditure in Scotland

Trunk road maintenance expenditure has kept pace with traffic growth while local road expenditure has not.



Source: Scottish Transport statistics 2004 edition, Scottish Executive

## Key recommendations

Councils and the Executive should:

- publicly report the condition of their road network and maintenance backlog on an annual basis.
- calculate the size of the structural maintenance backlog using a common accepted methodology.

Councils need to:

- establish a long-term strategy for road maintenance in the overall context of their transportation and roads asset management strategies

- meet the recommendations set out in *Delivering Best Value in Highway Maintenance – Code of Practice for Maintenance Management*

- review budget-setting procedures within roads and transportation services, ensuring they allocate sufficient priority to structural maintenance to achieve long-term value for money

- conduct an option appraisal for procuring and financing road maintenance services
- improve information about the assets they manage, including roads, bridges and street lighting

- use asset management systems linked to GIS and financial systems to improve the management of road maintenance

- consider whether their road maintenance service could be improved by entering into consortia arrangements with other councils to achieve economies of scale in road maintenance.

# Maintaining Scotland's roads



Audit Scotland  
110 George Street  
Edinburgh EH2 4LH

Telephone  
0131 477 1234  
Fax  
0131 477 4567