



Briefing 13/33 July 2013

## Highways and Winter Maintenance: Trend Analysis

To: All Contacts

### Key issues

There remains a focus on responding to category 1 faults on the highway.

There has been a shift to planned maintenance and away from reactive work.

The cost of providing winter maintenance services reduced dramatically as a result of much less severe weather last winter.

This briefing provides details on the performance information available from APSE's performance networks service looking at performance indicators and current policy issues for councils who provide highways and winter maintenance services.

APSE has been working with CSS Wales (County Surveyors Society Wales) and SCOTS (Society of Chief Officers of Transportation in Scotland) for the past 2 years to ensure the highways and street lighting templates remain up to date and appropriate for their services with a focus on asset management. All Welsh and Scottish councils have now signed up to the APSE highways and street lighting model. The intention of the partnership between the 3 organisations is to support an asset management approach to managing road networks based on asset types rather than an overarching highways or roads umbrella, avoid duplication and focus on service improvement through performance management.

The data referred to in this briefing covers 2011-12, the most recent reported on via Performance Networks.

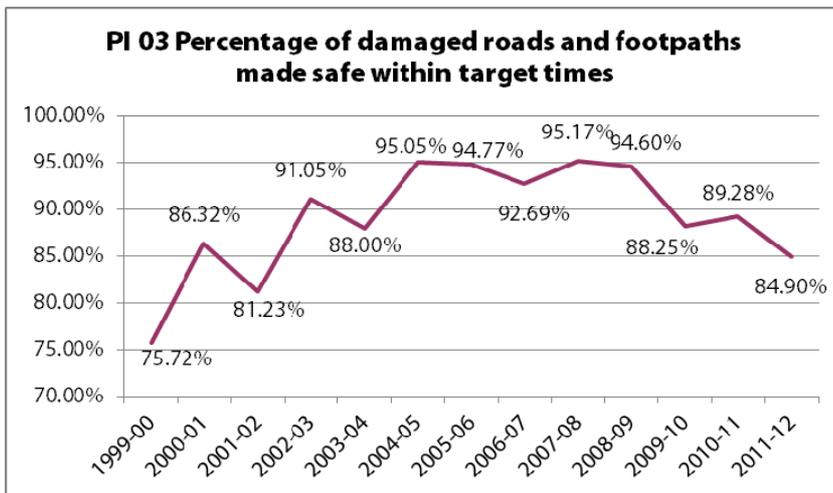
### 1. Overview

The APSE performance networks performance indicators for highways and winter maintenance cover the cost, productivity and quality elements of the services. This briefing aims to provide participating authorities with an overview of service trends, what this infers and what further activity and analysis individual authorities and the APSE highways, winter maintenance and street lighting benchmarking group could consider. The analysis is based on averages across all family groups for the last twelve years (1999/00 to 2011/12).

### 2. Trend analysis

#### 2.1 Highways

PI 03 shows the percentage of damaged roads and footpaths made safe within target times. This figure has improved steadily over the collection period from a low point of 75% in 1999. There was a reduction in average performance in 2009-10, down from 94.6% to 88.3% and it remained relatively static at 89.3% in 2010-11. Last year there was a further drop of 4.5% to a figure which was the lowest since 2001-02. It is important to place this trend in the context of 3 severe winters, reducing budgets and historical under investment. After a period of improved performance, the past 3 years reflect a downturn in performance.



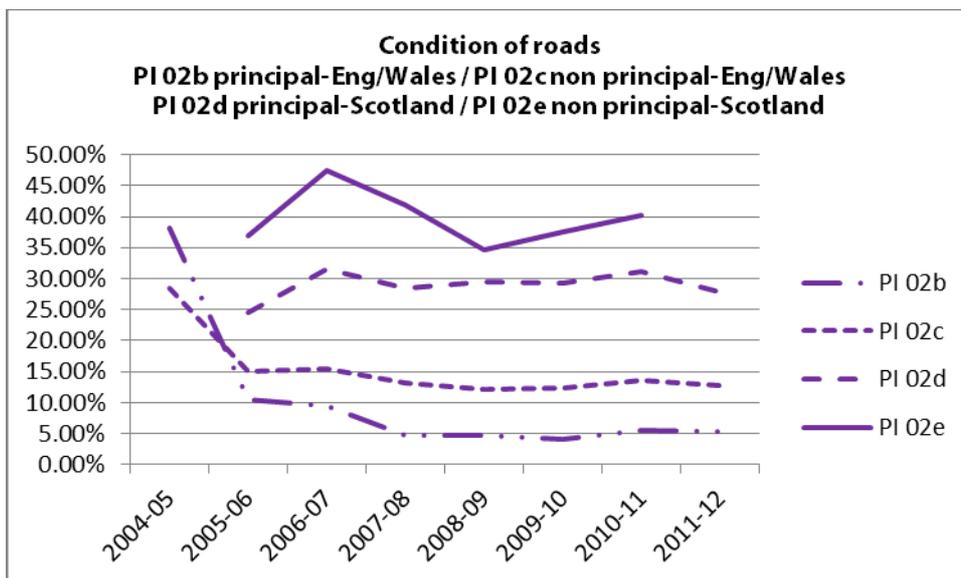
The survey PIs for the condition of roads in England and Wales, PIs 02b (principal roads via TRACS) and 02c (non principal roads), show differing outcomes. The former (PI 02b) covering principal roads shows a large improvement in the condition of roads since 2005-06 and has been steady over the past 5 years.

The non principal road survey (PI 02c) also remains steady at 12.7%. These are both substantially lower than when these PIs were first collected. In Scotland PI 02d (principal roads via SMRCS) has improved from 31.2% in 2010-11 to 27.9% in 2011-12.

Councils recognise the importance of roads and highways as a valuable asset and the impact on the local economy. They understand the need to maintain them appropriately and these figures reflect the fact that despite minor levels of decline in the condition of the network in England and Wales, councils are managing to keep on top of work to repair highways in very difficult circumstances.

The increase in poor condition reflects three years of extremely bad winter weather and the impacts of freeze/thaw on the road and footway surface. Spending resources on reacting to poor weather reduces the overall pot available for highways work and limits the time that can be spent keeping the roads in good condition. Initial cuts in budgets are beginning to bite although to date, the impact, as reflected by this PI, is slight. It will be interesting to see how the condition of road surfaces develops over the next couple of years as budget cuts bite and the effect of a number of bad winters on the asset emerges.

Councils are having to balance the public demand to fix individual potholes in short timescales with their own plans to manage the entire asset and address larger stretches of road. Working on an asset basis rather than fixing potholes first will cause some discomfort especially amongst councillors and highways professionals will have to put a lot of effort into explaining the reasoning for taking an asset management approach.



The percentage of actual maintenance expenditure which was planned or proactive (PI 16) in 2011-12 stands at 69.6%. This is an increase of 3% over the previous year and although it may appear minor, in terms of the data collection period it is a big increase. As noted above, recent guidance points to asset management rather than reactive maintenance as the method most likely to lead to a well maintained network. It is important to consider this approach in the long term when hopefully more planned work will have impacts upon the number of pot holes appearing.

There are priorities to be set when spending budgets and reductions in overall spend has implications for highways funding. When looking at spend on footpaths, the percentage of highways fabric maintenance expenditure that was spent on footpaths (PI 24) has reduced significantly over the past 4 years from over 25% in 2007-08, to 12.2% in 2010-11. This is a substantial decrease and most likely reflects the pressure on services as a result of severe winter weather on the highway. There has been a slight increase from 12.2% to 15.1% in 2011-12 as councils have reacted to more calls for footway work but balancing highway and footway work remains difficult.

PI 28 shows the number of category 1 defects per kilometre of maintained road. This has varied over the past 7 years but it currently stands at the lowest point by quite a way over the data collection period. Category 1 defects remain highest priority for highways managers and reductions of this nature if multiplied across the network will make a big difference in maintaining the asset.

PI 31, the percentage change in the number of third party claims in last 3 years compared to the previous 3 years, has shown regular reductions between 2005-06 to 2009-10 of up to 17%. However for the last 2 years there have been increases of 3.4% and 3.3%. These are minor increases but they do reflect more non-repudiated claims. Although procedures employed by councils are much improved and they are more likely to challenge claims where they have valid evidence and inspection regimes, this has been and remains a significant concern for councils. Clearly the number of claims is linked to the weather as they are to the state of the roads and footways.

The average figure for PI 30, the number of accidents reported to the HSE per 100 FTE, is 5.2. This continues a downward trend from a high of 9 in 2005-06 and is likely to a result of better health and safety management.

## 2.2 Winter maintenance

PI 115 which reflects the cost of salting per km of road treated (the total cost of the service divided by the total mileage covered on planned routes) increased from £23.31 to £27.03 between 2009-10 and 2010-11, an increase of 16%. There was a subsequent fall of 6% to £25.41 in 2011-12. The figures from this PI have fluctuated over the data collection period with an average figure of £24.17.

Whichever factors have led to this reduction, those councils providing the service are to be commended on keeping roads open in difficult circumstances and doing it for a reduced cost.

Government guidance has pointed councils towards greater levels of resilience and most have far bigger salt stocks now than in previous years as well as having invested in storage facilities, vehicles, ploughs, training and other elements of the service.

PI 110 tracks the actual number of planned pre-salting runs per annum and this figure was 105, 115 and 105 for the 3 years prior to 2011-12 during the 3 severe winters. In 2011-12 this dropped to 74 runs. These figures reflect the snow and ice conditions of the past 4 years as well as new approaches to spreading rates, weather forecasts, route optimisation, better calibration and upgrading of equipment and domain forecasting when compared with previous years.

The length of footways where gritting was carried out (PI 112) increased from an average of 4.39 km in 2004-05 to 14.5 km in 2010-11. In 2011-12 this figure increased dramatically to over 61.7 Km. Anecdotal evidence suggests that there is public demand for gritting on a greater extent of the footway network, outside shops on major pedestrian routes and at shopping centres and this has become more of a priority in some councils. This is backed up with the figures above and part of the reason may be that Scottish councils have made more submissions. The use of kubotas and manual spreaders for footways has increased as has the use of liquid de-icer in some areas.

### 3. Staff absence

Front line and all staff absences have gradually improved over the duration of the collection period and have remained steady over the past 3 years. For front line staff (PI 201a) the figure has improved from 5.6% in 2007-08 to 4.6% in 2010-11. However for 2011-12 there was an increase to 5%. For all staff absence (PI 202a) the figure is 4.3% in 2011-12 compared with 4.9% in 2007-08. As such longer term trends in sickness absence have improved. Reduced staff numbers and loss of experience and expertise in many services and councils will inevitably lead to increased pressure on remaining staff to continue to provide services. Higher levels of stress would be an expected result leading to potentially higher levels of absence in future. This may partially be offset by better absence management.

### 4. Unit Costs

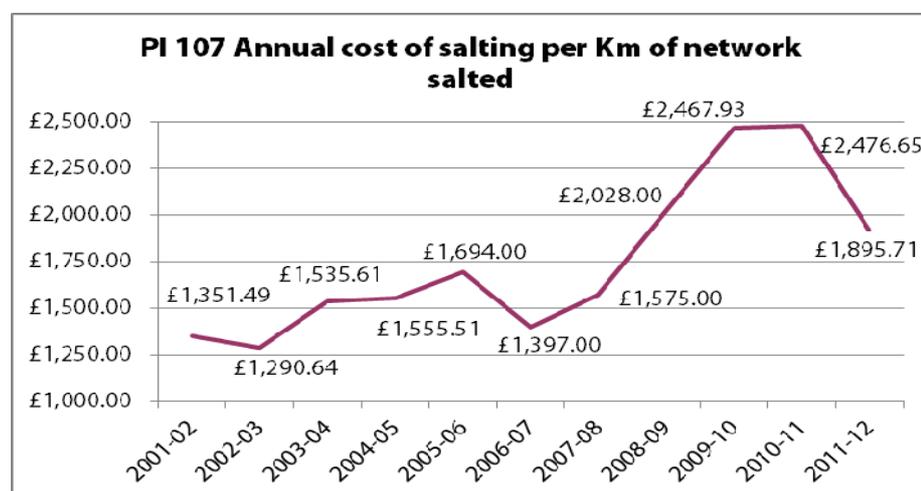
Percentage breakdown of highways costs

Area of operation	% of total 2009-10	% of total 2011-12
External contractors/sub contractors	28.4	30.7
Staff costs	21.4	20.3
Materials	16.3	15.9
Client costs	11.5	11.9
Equipment	12.1	11.1
Other expenditure inc. dept admin, office supplies and overheads	5.3	5.3
CECs	4.8	4.3
Landfill/waste disposal	0.29	0.5
Total	100	100

This table shows the average percentage breakdown of the costs of providing the highways and winter maintenance service. There is little of surprise regarding the costs and the proportions are roughly the same as last year with one slight change being an increase in external contractor costs. The areas where most savings can be made are clearly those areas where most money is spent and it is no surprise to see that councils are employing fewer people to deliver the service.

### 5. Interpretation of data

The graph below shows the cost of salting per km of road salted so reflects the whole service cost.



There have been increases in the cost of salting for the previous 3 years prior to 2011-12. The reduction noted above is equivalent to 22.5%. This may have been due to the less severe weather over the winter of 2011-12 but this was still a normal winter rather than a mild one. The increased number of Scottish councils submitting to the model may have had an impact on reducing this average figure. A focus on improving winter maintenance services is reflected here.

Recent severe weather has influenced managers to review their arrangements and this, along with reductions in budgets, has had a profound impact on the asset and so the demands of the service. The immediate responsibilities on councils to keep traffic moving and ensure that the network is safe to drive and walk on are obvious and are the first response when bad weather is expected. Councils are skilled in providing these services and any infrequent examples of gridlock can normally be put down to snow falling quicker than it can be moved rather than an operational problem within the service.

However, the wider issues of the transport network being fit to support the local and national economy tend to be overlooked after the snow is cleared. Long term damage to the network requires management and investment and unless both are available the network will deteriorate. The condition of local roads remains an issue with some national organisations estimating that only a fund of £10billion will bring it up to an acceptable condition.

Management of the highways asset remains a high profile issue with the benefits of better asset data being promoted. Equally a move away from fixing the worst potholes first towards a wider consideration of the network and asset management approach also has longer term benefits. Such changes require longer term planning and allocation of funding so it will be interesting to see how these approaches develop over future years.

## **6. Future focus**

There is now an unprecedented challenge facing councils throughout the UK in both managing reductions in funding as well as a greater demand for public services. Local authorities need to develop innovative and imaginative ways of addressing the funding gap and performance measurement is one means of evidencing the value of services, identifying cost savings, identifying new opportunities for income generation and service improvement, as well as demonstrating competitiveness. Across the UK, public sector performance measurement and management will form the basis of achieving efficiencies and value for money within local government. The recent Audit Commission Report, *Tough Times* (November 2011), looks at councils' responses to a challenging financial climate. It found that *'most councils were using benchmarking information to identify efficiency improvements and were challenging how services are delivered.'*

In England, the recent 'open public services' white paper emphasises that data is critical to demonstrating competitiveness and also to accountability and transparency. The introduction of a new regime after Comprehensive Area Assessment will see a greater reliance on existing sources of data such as APSE performance networks. The House of Commons Communities and Local Government Committee report on the audit and inspection of local authorities stated that with the demise of national indicators, for now at least, there should be comprehensive local reporting against local objectives with maximum transparency. The code of practice on data transparency is also worthy of note in terms of the use of performance networks data and reports.

In Northern Ireland, both the Local Government Reform 'Policy Proposals Consultation' by the DoE and the 'Case for Change' Consultation Paper from the Local Government ICE Programme have made reference to performance management as fundamental for the development of local government in Northern Ireland. The reports talk about the need to specify performance indicators, publish information and develop consistent, robust baseline data.

The Scottish Government's Commission for the Future Delivery of Public Services placed a significant emphasis on the need for robust approaches to benchmarking with organisations being required to use key data to assess and evaluate performance particularly in relation to the need to deliver outcomes. A key strand in the Scottish Parliament's Local Government and Regeneration Committee's recent inquiry into public service reform is benchmarking and performance measurement. This includes examining the development of benchmarking and assessing how it can contribute to the performance of local authorities in Scotland. The principles of Best Value 2 include improved coverage of service performance and Best Value 2 is a proportionate and risk-based approach, founded on self assessment.

In Wales, the new Performance Improvement Framework which was introduced in April 2011 has a focus on local, service improvement data as well as more formal, national measures. Service improvement data is to be used by local authority services and their regulators as they plan, deliver and improve services. The make-up of this data set will be defined by local authorities according to need and value, collated centrally and shared within the local government community to support service improvement.

Throughout the UK there is a common thread of the growing importance of local performance management systems to:

- Set a clear baseline on which competitiveness, efficiency and value for money can be measured in a systematic manner
- Assess the quality, cost and competitiveness of the services that councils provide on a regular basis
- Report data in meaningful ways to both elected members and the public
- Identify direction of travel and pace of change with regard to service delivery
- Identify inefficiencies such as poor productivity or absence management
- Support service improvement through process benchmarking and sharing best practice arrangements

Robust performance measurement tools are increasingly being recognised as evidence within devolved national frameworks, as a means to demonstrate transparency and accountability. As a result, systems that have been developed and refined over the years by local authorities such as APSE performance networks will continue to be an invaluable tool.

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