



Briefing 13/26 June 2013

'Ploughing on – a review of highway resilience in Winter 2013'

To: All contacts

Key issues

Findings show councils dealt well with severe weather earlier in 2013

Most have better control of salt stocks but there remain problems with the supply chain

Definite improvements found in terms of communication and engagement from local authorities

1. Introduction

Following a two week period of severe weather at the end of January 2013, the RAC Foundation undertook a review of highway resilience in England and Wales. The foreword to this review states that "Planning and resourcing our response to these circumstances – not least periods of intense snow and ice - to keep our transport systems running is a major challenge. Balancing the requirement to spend money on equipment, materials, staff training, and general readiness with the likelihood of all this actually being necessary in a particular winter is not easy, especially in an economic downturn." This theme runs throughout the review.

This review was to assess progress made since the Quarmby Review (and subsequent Audit) in 2010, both of which were commissioned by government in the wake of the severe winters between 2008 and 2010. It covers both England and Wales.

2. Performance of the highway authorities

The review notes that feedback from those local authorities contacted suggests that the Quarmby Review, and the follow-up Audit, were important in shaping today's winter service. It states that there was already good practice – and this has continued, and has been developed – but it is apparent that they served as a prompt to review many aspects of the service, and to stimulate improved practice and innovation. As confirmation of this, every local highways authority (LHA) pointed to areas of review and improvement since 2010.

The issue at the heart of the 2010 Review was salt stock levels, which had run low in the two preceding winters. This review revealed that more salt is now stocked, giving much greater resilience, and that various arrangements have been put in place to reinforce this resilience, such as joint additional storage arrangements with other councils. In addition, many authorities have reviewed their salt spread rates in conjunction with the new national guidance, and/or improved their fleet. This resilience was clearly demonstrated during the two-week period. Salt use was very heavy, but no authority reached a point where there was any risk of running out; indeed, both England and Wales had, in overall terms, significant reserves which could have been used.

The review notes that a few authorities observed that once the severe weather hit, and many orders were being placed to replenish stocks, the deliveries did not match what had been ordered, and that when it came it arrived somewhat piecemeal. This perhaps suggests that, as identified by the 2010 Review, there may be capacity constraints on the main producers affecting the delivery of orders at times of high demand.

The review noted the unitary (all-purpose) LHAs which highlighted the good practice of deploying other council staff or contractors, for example from street cleaning and parks and gardens, to support snow clearing, with a number emphasising how these arrangements have now become more formalised. Two-tier areas do not have the range of functions needed to do this, but many of them reported arrangements developed with district councils in their areas.

Another issue brought out in the review is the strengthening and development of plans and arrangements to work with community groups, as well as lower-tier councils, for instance parish or community councils where these exist. Other councils pointed to arrangements for groups of LHAs to work together; this is particularly a feature of the large metropolitan areas, and the winter service in Wales. Much attention has also been paid to improving information about winter services, and especially communications at times of snow. All the authorities contacted were now using Twitter.

The review found a more mixed picture emerged from the LHAs when it came to consulting on their winter plans. There is more engagement with those stakeholders with direct interests – transport operators and distribution centres, for example – but a concern was expressed by some LHAs that more general engagement will simply lead to demands for more of the network to be treated, when this cannot be afforded.

All LHAs reported to the review that they were well prepared for the severe weather in January. They were helped during this period by accurate weather forecasts, which provide decision-makers with confidence and enable the most effective pre-treatment ahead of snow. All LHAs also reported that they regarded performance on the priority roads as satisfactory during the snow events.

The review noted that one complication for many authorities was the saturated ground that resulted from the heavy rain in the autumn, and in some places fields were still under water when the snow came. Not only did the continued run-off cause problems to some authorities during the cold period, causing dangerous ice on the roads, but the saturated ground also contributed to widespread flooding when the lying snow thawed rapidly. This led to a continual threat of ice even when there was no snow.

The review went on to state that one indicator of good performance is positive feedback. Every authority reported that they have never before received so much thanks and praise from a range of sources. Some pointed to Twitter feedback as a contributory factor, but it does seem that improved communication and a high standard of performance generated much positive feedback. There were also issues and some complaints, most relating to those roads which are not scheduled for treatment. However, these were far outweighed by the positives, and it was revealing to hear some of the experienced winter service managers expressing their surprise, and pleasure, at the positive feedback that had been received.

Given the spending pressures on local government, the opportunity was also taken during the conversations which informed the review to ask whether budget cuts (as distinct from efficiency savings) had been made to the winter service, or whether any were proposed, to get an indication of whether the improvements of recent years are likely to be maintained. The response was identical from every authority: no cuts have been made to the winter service in the last two years, and none are scheduled. This gives confidence that the improvements of recent years should be maintained.

3. Conclusions and lessons

Overall, the review states that the conclusions from the review, based predominantly on the January 2013 weather and the way in which the country coped with it, are encouraging:

- The recommendations from the 2010 Review and subsequent Audit have been followed through in both England and Wales, and consequently there is now, in 2013, much greater resilience in the winter service provided by the highways authorities. The key concern from 2010, insufficient salt stocks, has been addressed.
- There was good preparation for the winter of 2012/13. This reflects the follow-through of recommendations from the 2010 Review, and in particular the existence of good plans, arrangements with local communities and other councils, strong communications, and continued development of equipment and materials.

- The forecasting from the Met Office was to a high standard, allowing – in the majority of places, and most of the time – highways authorities, drivers and businesses to make appropriate arrangements.
- The operational response during the two-week period of cold weather and snow was generally good. After the initial disruption as snow fell, which will always occur, the main roads were quickly restored to operational use, although there were some inevitable problems in untreated areas. This assessment is reflected by the large and unprecedented numbers of positive comments received.
- The feedback gathered for this review suggests that the experience of most road users matched this assessment.
- There is evidence that more road users are taking notice of the adverse weather warnings, and being prepared.
- There is no clear evidence that the impact of severe weather is particularly bad in this country by comparison with our closer European neighbours. Where, as in the UK and some parts of Europe, snow is not a regular occurrence, there is always some initial disruption and frustration for road users. However there are still some matters of concern and areas where lessons can be learned, particularly in the light of the March 2013 weather:
- The poor state of the road network – something reinforced by the latest ALARM (Annual Local Authority Road Maintenance) survey, which states that a fifth of the English local road network is in poor condition – is a cause for concern, as the snow and ice not only exacerbates damage but also hides potholes, through which road users then unwittingly drive or ride.
- Road users need to recognise that there comes an intensity of cold weather where the standard pre-treatment is increasingly ineffective: the effectiveness of salt is greatly reduced at temperatures of -7°C or less. At this point, the policy emphasis alters to one of coping with the conditions rather than trying to change them. There is a case for more widespread understanding of the need for good tread depth on tyres, and the benefits of both winter tyres and ‘add-ons’ such as snow chains (in extreme conditions) and snow socks.
- One of the issues for highway authorities to consider is whether anything can be done to avoid the problem of salt spreaders getting stuck in traffic queues, an issue which has affected the Highways Agency with barriers along the central reservation. As part of its own review of the snow episode in the South East in March 2013, there appears to be a case for the Highways Agency to consider whether it would be appropriate to install more removable sections of barrier to help in such snow events.
- Snow and ice should not be regarded as isolated problems. For example, as we seem to be experiencing increasingly frequent extreme weather events, their combined impacts must be assessed. This review heard how surface water and field run-off caused by months of heavy rain quickly froze when temperatures fell. Then, when temperatures rose and the snow melted, there was flooding as a result of the ground already being saturated.
- Highways authorities must keep under review the extent of the priority network they will treat during periods of severe weather, and should consult with key stakeholders and local residents so that there is full understanding of what will be treated.
- Councils have made a point of not cutting back on winter resilience despite the current period of austerity. The risk is that a run of two or three mild winters may result in a lessening of the priority given to the winter service, thus potentially leading to a dilution of the state of readiness.
- Although there is welcome evidence that many drivers change their travel plans in the light of snow and ice warnings, there are some people who still expect their journeys to be normal. They may feel that we have the technological resources to deal with whatever nature might throw at us – but the experience is that we do not.
- Evidence given to this review revealed the logistical and financial problems resulting from employees being unable to reach their places of work. Most firms have suitable business continuity plans in place to take account of disruption caused by bad weather (as well as other problems), and clearly these need to be kept under constant review, but employers may also wish to consider whether they can do anything more to support the preparedness of both their employees who drive in the course of their work and employees who drive to get to work.
- The public and the authorities should not confuse ‘extreme’ with ‘rare’. Over recent years at least, there has been a propensity for severe weather events to become increasingly frequent. We all have a duty to be prepared.

In summary, the main lessons as stated in this review, are for all highway authorities to maintain their present state of readiness and resilience, and to avoid complacency, especially if there is a succession of winters when extreme conditions are not experienced. The progress with community engagement, communications and information, and partnership working is greatly welcomed and needs to be maintained; such mechanisms are of wide value for other emergencies, and for resilience planning in general. However, the key lesson for everyone is to be prepared with highway authorities maintaining robust plans to deal with extreme weather whenever it comes. There is also a personal dimension with each person accepting their own responsibility to take note of warnings, to be prepared, and to adjust driving to suit the conditions on the roads.

4. APSE Comment

APSE welcomes the general message in this review which highlights the fact that the severe weather was dealt with well by councils earlier this year. Circumstances are difficult for all when snow falls but local authority staff work in dangerous and stressful conditions for long shifts when keeping the roads clear and should be praised for doing so.

The review notes that local authorities have managed to build up and are in control of salt stocks. It goes on to say that the supply chain is something they should give further consideration to. There is little that local authorities can do to affect the supply of salt. As with other products the market is based on demand and supply and in this case the supply side is severely restricted partially because of the costs of entering the market as a supplier and partially because of the nature of the demand which is based on weather conditions which can only be predicted within a few weeks. Clearly this is a problem for suppliers too. Undoubtedly supply would be smoother in an ideal world but there will be little significant change as a result of local authority actions.

The role of local authorities is vital in terms of communication and this is emphasised in the review with many using social media to inform their communities about conditions and action being taken. This cannot operate in a silo and the notification of severe weather warnings to the public should be part of a full digital technology and communications strategy if it is to be as effective as it should be. Local authorities also have to spread the message that drivers need to take their own precautions rather than rely entirely on council services.

Throughout the review there are examples of councils that have improved on the back of good council practice elsewhere and it is organisations such as APSE and others who enable this learning to occur.

The review also references the state of the roads and especially potholes. That is a wider topic than this review but the point is clear that bad weather directly impacts on the condition of the highway. That means that severe weather leads to further calls on highway maintenance budgets – the costs are greater than simply the cost of clearing snow and gritting.

The review states 'the response was identical from every authority: no cuts have been made to the winter service in the last two years, and none are scheduled'. Considering the level of local authority budget cuts over the past 3 years this is a statement which requires attention. Is it that councillors fully appreciate the value of the highway to national and local economies and the need to keep roads open? Or is it a knee jerk reaction to an emergency? There is no doubt that winter maintenance is a slicker operation now than it was a few years ago, with routes maximised, reduced salt spreading, new vehicles and equipment and greater partnership working. However in times of austerity managers will be aware that budget cuts are coming, either as part of a cycle of reduced budgets for all services or as a reaction to better weather over a couple of years.

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