



Briefing 10/76 December 2010

# Independent Report on Resilience of England's Transport Systems in December 2010

To: All contacts in England,  
For information: All contacts in Scotland, Wales and Northern Ireland

Key issues Winter of 2010-11 arrives early. Report addressing whether lessons have been learnt from previous years
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## 1. Introduction

On 1st December, the Transport Secretary asked David Quarmby CBE, author of the Report from Winter Resilience Review of England, to carry out an urgent audit of how well the highway authorities and transport operators in England have been coping with the unexpectedly early and severe spell of winter weather this year. The period under review is Wednesday 24th November to Thursday 9th December.

The report can be found at  
[http://transportwinterresilience.independent.gov.uk/docs/audit/winter\\_resilience\\_audit.pdf](http://transportwinterresilience.independent.gov.uk/docs/audit/winter_resilience_audit.pdf)

## 2. Weather

The Met Office gave 'early indications of the onset of a cold spell from late November' at the end of October, but detailed forecasts of snow were not possible until a few days before the first precipitation which arrived on 24th November 2010.

The Met Office advice to the main Review earlier this year was that severe winters have only a 1 in 20 chance, that the weather in any one winter is virtually independent (statistically speaking) of weather in preceding winters, and that this incidence is slowly declining due to global warming; however, one important effect of global warming is that more snow is possible when severe weather events do occur.

The author specifically sought further advice from the Met Office as part of this Audit, to explore whether these views about the probability and the incidence of severe winters had changed. The Met Office did thoroughly review this question, but they have confirmed their previous assessment and advice. This audit identifies some opportunities to spend more and to invest more in England's winter resilience. But the worthwhileness of such projects depends crucially on the probability of severe, disruptive winters reoccurring. The scientific advice from the Met Office is that this is still a low chance (there have been 8 comparable spells to this current period in the past 50 years).

### **3. Road Network**

Most of England suffered low temperatures and modest snowfall at the end of November and the first week or so of December. The audit found that local highway authorities (LHAs) were in a good state of readiness for this unexpectedly early winter episode; the usual road gritting operations were triggered, and the evidence available to the author suggests that these were generally effective, with traffic and movement on the treated networks largely unaffected.

The audit identifies 5 issues which need to be addressed to ensure good performance in this service – effective and inclusive planning; pro-active community engagement supported by strong leadership; comprehensive information and communications to stakeholders and the public at large; and high operational standards supported by professional commitment and delivery.

The audit notes that there needs to be a more widespread communication of best practice and encouragement of those authorities for whom the opportunity remains to raise their game. Meanwhile it is up to LHAs and their communities to do the best job they can, given the unpredictability and volatility of our weather, and the resources the nation believes are affordable to deal with winter. The vast majority of local authorities were already doing many of the things recommended in the main review, and the author has been heartened by the response of many of those for whom the recommendations provided an opportunity to improve their performance.

### **4. Salt utilisation**

The Review identified a significant opportunity to improve salt utilisation by reducing spread rates, which would ease pressure on salt supply and improve resilience of the supply chain. The audit identifies a continuing wide variation in spread rates, and a reluctance among the higher users to make changes without authoritative evidence-backed advice. There is an intention to release to the whole highways community research and advice previously available only to subscribing members of NWSRG.

The substantial early use of salt this season – by 6/7th December some 30-45% of demand that the whole of a severe winter would generate – has raised major concerns among the LHAs the author spoke to about sustaining the supply of salt for the rest of winter – whether severe or not. There will have been substantial further use in the period since then, and as a result the issue has intensified.

Salt suppliers have been under pressure this year to fulfil highway authorities pre-season stocking orders, because of the low level of stocks with which the sector exited last winter, and the record levels of pre-season stockholdings targeted by LHAs. This has meant some delays in completing pre-season orders, and that supplier's own stockholdings have been very low.

The review recommended that Government should task the HA, on behalf of the highways community, to acquire a strategic reserve of up to a quarter of a million tonnes of salt and set up a comprehensive monitoring system for salt stocks and use across the country and both recommendations were accepted. Two thirds of the strategic reserve is now in place, with the balance due in the next few weeks. The new monitoring system has greatly increased confidence among all the organisations that the state of stocks, supply and use is now known and can be acted on. For example, this has informed decisions by Government during week beginning 13 December to acquire further strategic stocks, and to initiate the first allocations from the national strategic reserve.

There is also advice about salt conservation including specific authoritative advice about spread rates which will be issued from DfT imminently.

## **5. Recommendations**

The audit makes 3 recommendations specifically related to local authorities.

### **Weather and transport**

Recommendation 1: In spite of the continuing advice from the Met Office that severe winter weather continues to have a low probability of occurrence, and that there appears to be no evidence to support 'clustering' of severe winters, government should recognise that there are opportunities for additional resources to be committed to winter resilience in England – in highways, railways and aviation – but that the quantified benefits and the business case will necessarily reflect this weather assessment.

### **Local Highway Authorities**

Recommendation 2: Local highway authorities should be commended for their readiness and response during the recent period of severe winter weather; at the same time they should note the elements that drive good performance in the delivery of winter service (particularly in snow conditions), in the provision of good information, in the management of public expectations, and in engaging the public and should review their own plans and operations accordingly against best practice.

Recommendation 3: Government, working with the UK Roads Liaison Group and the National Winter Service Research Group, should take the lead in making urgently available the research and evidence that will underpin decisions by highway authorities to make more economical use of salt and its derivatives (this is now in hand).

The audit goes on to note the actions that a best practice LHA will be undertaking:

#### **Planning;**

- Review and consult with stakeholders widely on the treated networks, including adjacent highway authorities, major installations, transport operators, health and educational facilities;
- Put in place, according to its weather history, appropriate and worked-up plans for the deployment of sufficient snow clearance resource – farm contracts, plant contractors, maintenance contractor supply chains – with good geographical coverage of the vulnerable areas;
- Adopt a strategy for footways and cycleways and confirm how it will be delivered;
- Use the resilience and emergency planning mechanisms to put in place robust operational coordination arrangements, such as snow desks, involving the police and other emergency services.

#### **Community engagement;**

- Have clear arrangements with Districts and Borough Councils (in two-tier authority areas) for the delivery of certain local services such as footways clearance, grit bins etc and publicising and promoting self help, Snow Code etc;
- Lead systematic engagement with parish and town councils and local communities to clarify and support ways in which they can be encouraged towards self help, including information, the Snow Code, training, briefing, and reporting back;
- Manage expectations, about what can be done and what cannot.

#### **Information;**

- Have a pro-active information strategy for all stakeholders about winter resilience plans and operational delivery – using a comprehensive website, social media and other digital

communications – including real-time information about activity and network status, links to other websites, etc;

– Have a proactive and open relationship with local media.

### **Operations;**

– Achieve operational excellence in responding to weather forecasts, getting enough salt out before the snow falls, getting ploughs out ahead of other traffic and mobilising all available support resources;

– Achieve high levels of practical liaison and coordination across major delivery partners including police and other emergency services;

– Manage salt utilisation and adopt best practice on methods, spread rates and materials;

– Review and plan forward capacity for salt storage in line with recommendations from our main review.

### **APSE comment**

The APSE briefing on The Final Report from the Winter Resilience Review agreed with the finding that communication and engagement between some councils and other bodies and communication with local people and businesses could be improved. There is no doubt that councils have improved this area of work and examples in the report highlight this, but there is scope for more work in this regard, not only from councils but from all bodies involved. The audit makes clear reference to the Met Office conclusions and it is this kind of information which needs to be more widely publicised. This should then inform the discussion looking at the balances between the likelihood of severe weather (and the problems it causes) and the costs of investing in salt supplies, storage, equipment and spreading.

The idea of a strategic salt reserve established by Government would be a good one in normal market conditions but of course in normal market conditions it would not be necessary. The fact that supply is restricted in the UK to 3 suppliers, the fact that deliveries from overseas take a long time and that demand is unknown until a few days beforehand mean the market does not have flexibility to respond adequately. A strategic salt reserve merely takes up some of the salt that would otherwise be demanded from those using the salt. It adds a further step into the procurement process. The government noted that this salt would be available at premium prices to local authorities to encourage them to put adequate supplies in place. However, they are looking to purchase precisely the supply that is now sitting in the strategic reserve. Not only that but if they want to purchase from the strategic reserve (because the suppliers have restricted supplies) they are forced to pay extra for it.

The strategic reserve has in effect increased the price of salt for local authorities at a time when no other supplies are available and when local authorities have no other alternative and no chance to put adequate stocks in place. In effect it has exacerbated just the problem it was designed to solve. Local authorities must continue to salt roads – they do not have the option of delaying this activity in the way that other services can be delayed. They must utilise salt as it is needed without the benefit of hoping it can be kept aside if conditions deteriorate in the future. As such there is no option for them other than to purchase this salt at inflated prices.

Weather predictions indicate further snow falls over the Christmas weekend and cold weather into January so demand for salt and winter maintenance services will continue for a number of weeks to come in certain parts of the country.

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