

Winter Resilience Review – Technical Report on the Salt Supply Chain

October 2010

Introduction

This technical report presents the analysis undertaken by LCP Consulting Ltd under the supervision of the Winter Resilience Review Panel. This work supports the Panel's conclusions and Recommendations on the resilience of the road salt supply chain. It should be read in conjunction with the chapters on "Salt and the Supply Chain" in both our Interim and Final Reports, "The Resilience of England's Transport Systems in Winter".

The Review's Interim Report was published in July 2010 and gave an initial diagnosis of the issues surrounding salt and the supply chain and recommended short term action for next winter (Chapter 7). In particular, we recommended the creation of a strategic stockpile of one quarter of a million tonnes of salt, to be procured and managed by the Highways Agency on behalf of England's local highway authorities, and secondly the establishment and operation by the Department for Transport (DfT) of a year-round monitoring and reporting system for salt stock and supply across the nation, to support a continuing strategic overview of the salt supply situation and to give early warning of problems likely to arise.

The technical report presents the analysis underpinning our Final Report (Chapter 10), published in October 2010. For this part of the study we carried out a thorough, detailed analysis of the salt supply chain at a more disaggregated level, and developed and evaluated longer-term, sustainable measures that would build sufficient resilience for highway authorities to meet their operational needs for salt. Our benchmark was to identify measures to enhance the resilience of the salt supply chain in order to cope with unconstrained demand for salt across Britain during a winter as severe as that experienced in 2009/10 and avoiding a scenario that would require activation of the Salt Cell or triggering of substantial imports.

To support the Panel, we commissioned supply chain specialists LCP Consulting Ltd to carry out this analysis. Working with the Winter Resilience Review Team, LCP created a strategic planning model of the complete salt supply chain in Britain. Demand profiles were derived in order to model highway authority behaviour assumptions (HABAs). This enabled us to model and test a number of resilience measures for our benchmark of meeting unconstrained demand for salt during a nationally severe winter.

The Panel is grateful to LCP Consulting Ltd for their assistance which helped us frame our Recommendations on Salt and the Supply Chain in both our Interim and Final reports.