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**Meeting:** Executive  
**Date:** 10 November, 2009  
**Subject:** Winter Maintenance within Central Bedfordshire  
**Report of:** Cllr David McVicar, Portfolio Holder for Safer and Stronger Communities

**Summary:** The report proposes a process for a reduction in the normal salting network if extenuating circumstances are experienced that make it impossible to continue to salt the publicised Priority 1 network.

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**Advising Officer:** Gary Alderson, Director of Sustainable Communities  
**Contact Officer:** Basil Jackson, Assistant Director Highways & Transport  
**Public/Exempt:** Public  
**Wards Affected:** All  
**Function of:** Executive Committee  
**Key Decision** Yes  
**Reason for urgency/  
exemption from call-  
in  
(if appropriate)** N/A

## **CORPORATE IMPLICATIONS**

### **Council Priorities:**

Council priorities affected by this paper are:

- Creating safer communities; and
- Managing growth effectively

### **Financial:**

From October to April, our provider (Amey) is required to carry out the necessary winter gritting on behalf of Central Bedfordshire. This means that the Council has financial certainty over its £613K spend in this area as Amey is paid a fixed sum under the managing agent contract (MAC) regardless of how mild/severe the winter weather conditions. However, if winter maintenance is required outside the October/April window, and/or ploughing is required, this cost will fall to the Authority. In addition, experience gained last year showed that a severe cold snap brought about a significant number of additional pot holes. The former County Council dealt with this unexpected expenditure using its reserves.

**Legal:**

Section 41 of the Highways Act 1980 was amended by the Railways and Transport Safety Act 2003 and requires highway authorities to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice. Bedfordshire Highways undertakes the complete winter maintenance duty on behalf of Central Bedfordshire Council.

**Risk Management:**

It should be noted that in the event of very severe weather conditions it may not be possible to treat the full Priority 1 network. Communication media are being developed to advise the travelling public and other public bodies (such as schools) about road conditions and specific actions being taken by the Authority with respect to salting.

**Staffing (including Trades Unions):**

n/a

**Equalities/Human Rights:**

n/a

**Community Safety:**

There are access issues for public bodies such as emergency services and schools that need to be considered within our winter maintenance prioritisation process.

**Sustainability:**

There could be issues around managing salt stocks so that there are sufficient reserves to keep the road network free of snow and ice during exceptional weather conditions. However, lessons learned from last winter mean that we are unlikely to see a repeat of this problem.

**RECOMMENDATIONS:**

that the Executive agrees the following:

- (a) In exceptional circumstances, to reduce the standard Priority 1 salting network (47% of roads) to a reduced network of solely A and B roads (19%) to be named the Priority 1A network. This new network to be included within the Winter Maintenance Service Plan for 2009 – 2010;
- (b) That Bedfordshire Highways replace Sections 4.4.3. and 4.4.4. of the Winter Service Plan with the wording detailed in Appendix C of this report for the 2009 -2010 winter season;
- (c) For Bedfordshire Highways in conjunction with unitary press officers to develop an education campaign to explain how to get about in adverse weather conditions;
- (d) For Bedfordshire Highways in conjunction with press officers to develop a process whereby the instigation of Priority 1A salting and snow clearance is advertised to road users across Central Bedfordshire;

- (e) **For Central Bedfordshire School Transport service to adopt a formal procedure for the winter of 2009 -2010 using the valuable experiences gained during the 2008 – 2009 winter season;**
- (f) **For Central Bedfordshire to complete the web development whereby educational establishments can access weather information, specific road conditions and the actions that Bedfordshire Highways are taking with respect to salting and snow clearing; and**
- (g) **During any new depot procurement process, Central Bedfordshire Council undertake a reassessment of salt stock levels taking in to account the events experienced during recent winter periods.**

*Reason for Recommendations :* *So that a process is formally agreed by Executive in order to prevent, as far as possible, any 3<sup>rd</sup> party litigation in the event that the Authority is forced to reduce salting to a limited network of roads at any time in the future.*

## **Introduction**

1. During February 2009, Bedfordshire, along with most of the rest of the country, experienced the worst spell of snowfall for the last 10-15years, coupled with daytime temperatures that failed rise above freezing. As a result there was a national shortage of salt and highway authorities were not receiving their salt replenishment orders. Along with many other highway authorities, the former Bedfordshire County Council was forced to restrict its snow clearing and salting operations to solely A and B class roads in order to keep traffic moving on the strategic road network. This report details the lessons learned during the snow conditions earlier this year and seeks to formalise a process for future years if similar events are experienced.

## **De-icing Materials**

2. Rock salt, which is supplied largely from mines under Cheshire is realistically the only cost effective medium for de-icing roads. A brief history on road de icing materials and stock levels held by Bedfordshire is detailed at Appendix A.
3. Unfortunately, both Bedford and Dunstable depots are restricted by their urban location. They are already congested and operating at/near capacity for the highway operations that are carried out. There is no opportunity to substantially expand either depot to create additional salt storage in the event of more extreme winter snow conditions such as experienced in the winter of 2008-2009. Officers are looking to review highway depot facilities and funding is currently available within the capital programme for 2010-2011 to progress to planning stage the procurement of a new combined depot for highways and other council functions, currently suggested at Thorn Turn near Dunstable. A reassessment of optimal salt stock levels will be undertaken as part of this review. This will include a risk assessment into the likelihood of a similar winter taking place in the future.

## **The Salted Road Network**

4. When ice is forecast, Bedfordshire Highways salt approximately 47% of the total road network during the winter period October – April inclusive. Benchmarking work shows that we are salting a similar proportion of our network to other authorities in the eastern region (with the exception of Milton Keynes which is largely an urban network). It should be noted that during a normal winter, in salting the normal Priority One network, there are little or no problems for road users.
5. In recent years, heavy snow has been relatively rare, or has only lasted for one or two days. In such circumstances, Bedfordshire Highways instigates snow ploughing firstly on the Priority One network, 24 hours per day if necessary. When traffic on this network is running relatively freely, then salting and ploughing starts on secondary roads. This latter network is known within our Winter Maintenance Service Plan as the Priority Two network. Traditionally, most snow has tended to thaw before we were able to commence ploughing this Priority Two network.
6. Our Highways Managing Agent Contract (MAC) provides for a lump sum payment for the provision of winter maintenance. This means that within contractual parameters the Authority has cost certainty each year irrespective of how mild/severe the winter conditions.

## **The Winter of 2008 - 2009**

7. There are circumstances outside of budgets and finance which may negate the ability of the Priority 1 network being salted, either in anticipation of ice or snow, or during severe weather. During February 2009, Bedfordshire, along with most of the rest of the country, experienced an unusual weather event of sustained snow conditions over a number of days, coupled with day time temperatures struggling to reach zero. This meant that laying snow did not melt during the daylight hours. The snow event in February 2009 has been nationally recognised as the worst over the last ten to fifteen years and was therefore recognised as a relatively low risk event for any one year.
8. More detail of experiences gained are detailed at Appendix B.

## **The Winter Maintenance Service Plan**

9. To set a formal process for undertaking the winter maintenance duty, Bedfordshire Highways has, since 1996, produced an annual Winter Maintenance Service Plan. This Plan outlines our service standards and procedures in providing this service, but it also serves as part of our evidence in the defence of any third party claims arising from incidents occurring on the road network during winter.

10. The criteria for including routes on the Priority One network ensures that schools, emergency services and business centres continue to be accessible wherever possible. At present all but a very few upper or middle schools have a Priority One salted route past their entrance. However, not all lower schools have a Priority One route past their entrance. It is considered that a lower school being closed for a short period due to inclement weather is not such a priority compared with a middle or upper school. A full copy of the Winter Maintenance Service Plan for 2008 – 2009 can be found at the following web link:

Shortcut to: <http://www.centralbedfordshire.gov.uk/transport-and-streets/highways/gritting/default.aspx>

### **Other Factors which could affect Bedfordshire Highways' ability to salt the full Priority 1 network in the future**

11. There may be instances in the future where factors other than a national shortage of salt may affect our ability to undertake winter maintenance on the Priority One network. Some examples of such events are, but not limited to; swine flu or other health pandemics, national fuel shortages and civil emergencies.

### **Actions taken subsequent to the 2008 – 2009 winter**

12. The Secretary of State for Transport asked the UK Roads Liaison Group to review lessons that can be learned from the events of winter 2008/9 and to recommend what steps could be adopted by highway authorities, producers and suppliers of salt and other stakeholders to ensure England is even better prepared should similar events occur in future. The following details the way in which the winter service will change following the recommendations made by the UK Roads Liaison Group.
13. Our pre-season salt stocks and in-season stocking arrangements have been reviewed and as a result minimum stock levels have been increased by 33% giving sufficient salt for over 20 continuous Priority 1 saltings.
14. To ensure that sufficient drivers are available to cover for 24 hour manning in times of severe weather, the number of drivers available has been increased by 50% ensuring that we now have three drivers for each route. We have also revised our management and supervision of the winter service and have increased the number of staff who are able to control these operations. This will ensure that there are adequate resources available in the event of severe weather.

15. Central Bedfordshire Council is developing a web site where our educational establishments can access road weather and condition information, together with the winter maintenance actions that Bedfordshire Highways is undertaking. This will enable these establishments to make more informed decisions as to whether or not to close schools and colleges.

### **Conclusion and Next Steps**

16. The winter of 2008 – 2009 showed that it was not possible at all times to keep the Priority One network free of ice and snow. Even with unlimited salt supplies, outside influences may dictate only undertaking salting and snow clearance on a more limited network of strategic roads. Even then, extreme scenarios may dictate that keeping a limited network free of ice and snow is impossible.
17. If either of these scenarios occurs then it is vitally important that road users are kept up to date with changing priorities via local media. It is also important that the emergency services, bus companies and major haulage businesses in Central Bedfordshire are contacted directly with regular updates.

### **Appendices:**

Appendix A - History of road de-icing materials in Bedfordshire

Appendix B - The Winter of 2008 - 2009

Appendix C - Sections 4.4.3. and 4.4.4. of the Winter Service Plan for the 2009 -2010 winter season

### **Background Papers (open to public inspection):**

Winter Service Operational Plan 2008

Location of papers: Web link and also Priory House, Chicksands

## **Appendix A**

### **History of road de-icing materials in Bedfordshire**

Until 1999 Bedfordshire County Council operated out of three depots; Bedford, Clifton and Dunstable. These held a total salt stock of 10,600 tonnes.

In 1999 the then County Council was threatened with prosecution by the Environment Agency as a result of for saline run off entering watercourses surrounding Clifton Depot. Subsequently, Clifton Depot was closed over the following 2 years.

In 2001, work was undertaken in the Bedford depot to create a secure salt holding area with drainage to underground tanks to retain any saline solutions emanating from the open salt stockpile. This raised salt capacity from 3400 tonnes to 5500 tonnes, with the Dunstable depot still retaining 800 tonnes. This makes a total stock holding of 6300 tonnes.





## **Appendix B**

### **The Winter of 2008 - 2009**

The severe snow conditions across the county meant that the salt mines could not process enough rock salt in order to satisfy the high number of replenishment orders highway authorities were placing. Consequently there was a severe national shortage of salt, and Bedfordshire did not receive ordered deliveries of salt. The result was that it became readily apparent that to continue gritting the entire Priority One network would have depleted the remaining stocks within days. An officer decision was therefore taken to manage remaining stocks by restricting salting and ploughing to only the strategic routes within the County, that is our A and B roads only. This pragmatic decision resulted in road users having to travel on some untreated roads which would have normally been salted.

In salting and ploughing only A and B roads, this meant that many routes to school were not cleared of snow. This was then difficult for teachers and children to make it into school; however it is worth noting that during the snow event, all staff working on winter maintenance managed to get in to work to operate salting vehicles and snow ploughs.

Questions were subsequently raised over the reasons why schools closed, whether or not more could have stayed open and whether the Authority could have provided more information to schools to assist them to make that decision. Many schools were critical of the condition of roads around the school. Some also said that staff could not get in because their own children's schools were closed.

During the period of snow, school transport was cancelled on only one day during the first week and ran almost normally in the second week. However, questions were raised over whether these decisions were made in sufficient time and whether this information was adequately communicated to schools. In addition, questions were raised as to why the decision to provide school transport could not have been delayed until later in the day when roads were better trafficked, although this would have been after the normal opening times for schools.

The School Transport team had the task each day of determining whether or not it was possible for school transport to run. After a difficult start, the team made tremendous efforts to ensure that early and appropriate decisions were made over whether or not routes could function. These experiences have resulted in a good system in place for analysing the weather and road conditions and determining whether or not to run transport for coming winters. When needed, a team of staff who live close to Borough Hall, will come into work before 6am in order to make these judgements. They have access to weather information from Bedfordshire Highways, as well as updates on the state of the roads from drivers of the now unitary council's fleet of yellow school buses. Following liaison with the transport providers a team, led by the AD Highways & Transport, provide information to head teachers via e-mail before 6.30am on which bus services would be running that day.



## Appendix C

### **4.4.3. PROCEDURE FOR THE INSTIGATION OF ALL DAY WORKING AND 24 HOUR MANNING FOR THE CLEARANCE OF PERSISTENT ICE AND SNOW**

*During times of persistent ice and or snow, it may be necessary to carry out an all day or 24 hour salting and or ploughing regime on the Priority One network, (to include the Priority 2 network as feasible), in clearance operations. As this type of operation can be very costly, the instruction to commence all day or 24 hour manning will only be authorised by the Winter Service Provider (Amey) in consultation with the respective Assistant Director responsible for the highway service within the unitary authorities.*

### **4.4.4. PROCEDURE TO BE UNDERTAKEN WHEN IT BECOMES ESSENTIAL TO RESTRICT SALTING AND SNOW PLOUGHING ON THE PRIORITY ONE NETWORK**

*During times of prolonged heavy ice or snow, or through other outside influences, it may become impossible within the resources available, to keep the Priority One network open to traffic.*

*If this becomes the case then the Winter Service Provider (Amey) in consultation with the respective Cabinet Member, Director and Assistant Director responsible for the highway service within the unitary authorities will implement salting and snow clearing on the Priority 1A network.*

### **4.4.5.. PROCEDURE TO BE UNDERTAKEN WHEN IT BECOMES IMPOSSIBLE TO KEEP THE PRIORITY 1A NETWORK OPEN TO TRAFFIC**

*During times of extremely heavy and drifting snow it may become impossible within the resources available, to keep even the primary routes of the Priority One network open to traffic.*

*If this becomes the case then respective unitary authorities BLLRF processes are instigated.*