



# Derbyshire County Council Environmental Services

## WINTER SERVICE PLAN

**Ian Stephenson**

**Strategic Director of Environmental Services**

**County Hall, Matlock, Derbyshire. DE4 3AG**

This document will be available on the County Council's website ([www.derbyshire.gov.uk](http://www.derbyshire.gov.uk)) and this medium will be the key means by which amendments will be released.



<b>Contents</b>	<b>Page</b>
Table of Amendments	02
01. Foreword	06
02. Introduction	06
03. Legislation and Guidance	07
04. Objectives, Resilience and Efficiencies	08
05. Weather Forecasting and Monitoring	10
06. Precautionary Salting	11
07. Snow Clearance of Carriageways, Footways and Cycleways	15
08. Network Users and Promoted Facilities	17
09. Salt Management	18
10. Critical Salt Levels Emergency Plan	19
11. Salt / Grit bins	21
12. Operational Arrangements with Partners	22
13. Winter Service Operational Plan	23
14. Communications and Publicity	24
15. Climate Change	25
16. Co-ordination and Collaboration	26
17. Staff Training and Development	26
18. Mutual Aid	27



19. Risk	28
20. Benchmarking	29
21. New Developments and Private Streets	29
22. Call Centre ('Call Derbyshire') and Control Centre	30
23. Equality and Diversity	30
24. Appendix A - Advice to Members of the Public	31
25. Appendix B – Precautionary Salting Matrices	31



**TABLE OF AMENDMENTS**

NO	APPROVAL DATE	SECTION	PARAGRAPH	DETAILS
0	14/09/2010	All	All	First Issue
1	29/11/2011	Contents		Table of Amendments added to Contents page
	29/11/2011	Contents		Equality and Diversity added to Contents page
	29/11/2011	Contents		Appendix A title amended on Contents page
	29/11/2011	Contents		Appendix B added to Contents page
	29/11/2011	Table of Amendments		Table of Amendments inserted
	29/11/2011	1	1.2	Paragraph amended
	29/11/2011	2	2.2	Paragraph amended
	29/11/2011	4	4.3.3	Paragraph amended
	29/11/2011	4	4.3.4	Paragraph amended
	29/11/2011	4	4.3.5	Paragraph amended
	29/11/2011	5	5.3	Paragraph amended
	29/11/2011	6	6.1.2	Paragraph amended
	29/11/2011	6	6.1.3	New paragraph
	29/11/2011	6	6.3.1	New paragraph
	29/11/2011	6	6.3.2	Paragraph amended
	29/11/2011	6	6.3.3	Paragraph amended
	29/11/2011	6	6.3.4	Paragraph amended
	29/11/2011	6	6.4.1	New paragraph
	29/11/2011	6	6.4.2	Paragraph amended
	29/11/2011	6	6.4.3	Paragraph amended
	29/11/2011	6	6.4.4	New paragraph
	29/11/2011	6	6.4.6	Paragraph amended
	29/11/2011	6	6.5.1	Paragraph amended
	29/11/2011	7	7.2	New heading
	29/11/2011	7	7.2.1	New paragraph
	29/11/2011	7	7.3	New heading
	29/11/2011	7	7.3.4	New paragraph
	29/11/2011	7	7.4	New heading



**Winter Service Plan**

Issue Date: 29/11/2011

Amendment Number: 1.1

Page 5 of 34

	29/11/2011	7	7.4.1	New paragraph
	29/11/2011	7	7.5	Heading amended
	29/11/2011	7	7.5.3	Paragraph amended
	29/11/2011	8	8.1.1	Paragraph amended
	29/11/2011	8	8.2.2	Paragraph amended
	29/11/2011	8	8.3.1	Paragraph amended
	29/11/2011	8	8.4.1	Paragraph amended
	29/11/2011	8	8.5.1	Paragraph amended
	29/11/2011	12	12.5	Paragraph amended
	29/11/2011	13	13.2	Paragraph amended
	29/11/2011	14	14.3	New paragraph
	29/11/2011	14	14.4	New paragraph
	29/11/2011	14	14.5	New paragraph
	29/11/2011	14	14.6	New paragraph
	29/11/2011	14	14.7	New paragraph
	29/11/2011	14	14.8	New paragraph
	29/11/2011	16	16.1	Paragraph amended.
	29/11/2011	18	18.3	Paragraph amended
	29/11/2011	18	18.4	New paragraph
	29/11/2011	18	18.5	New paragraph
	29/11/2011	18	18.6	New paragraph
	29/11/2011	18	18.8	New paragraph
	29/11/2011	18	18.9	New paragraph
	29/11/2011	19	19.1.3	New paragraph
	29/11/2011	20	20.3	Paragraph amended
	29/11/2011	22	22.2.4	Paragraph amended
	29/11/2011	23	All	New Section
	29/11/2011	24	24	Section title amended
	29/11/2011	25	All	New section



## **1 Foreword**

- 1.1 This document sets out the Council's policies and standards for Winter Service treatment.
- 1.2 This plan is accompanied by the Winter Service Operational Plan and procedures containing the arrangements in place to deliver the plan and detailed route plans showing how the road network will be treated.
- 1.3 This is a live document and it will be updated as details of legislation and resources etc. change.

## **2 Introduction**

- 2.1 The purpose of this plan is to set out the principles that the County Council uses to meet its obligations and duties in respect of its winter service. It lays down which categories of road are to be treated, in what order of priority, and how quickly they should be treated. It is intended, through the use of this plan, to ensure that there is a uniform level of service throughout the county.
- 2.2 This plan reflects the recommendations of the Well-maintained Highways: Code of Practice for Highway Maintenance Management (Roads Liaison Group, July 2005) and the Code's latest Complimentary Guidance dated 10 August 2011.
- 2.3 The County Council, as the Highway Authority, is responsible for providing a winter service on adopted public highways within the county of Derbyshire except for motorways and trunk roads, which are dealt with by the Highways Agency and the roads in Derby City, which are the City's responsibility.
- 2.4 The purpose of the winter service is to provide assistance to road users by treating the highway network to mitigate the effects of ice and snow and to maintain traffic movements, whilst minimising the impact of the service operations on the environment.
- 2.5 The service is essential for public safety and to the national and local economy in maintaining movement of vehicular traffic, cycles and pedestrians. Owing to limited resources and available finance it is essential that provision of winter service reflects the importance of traffic routes. It will not be reasonably practicable to provide the service on all parts of the network or to ensure all



surfaces are kept free of ice or snow at all times, even on the treated parts of the network.

- 2.6 The objective is that a network of treated routes should be reasonably accessible for the majority of residents and businesses, supplemented by targeted provision of self-help facilities.
- 2.7 It should be noted that the service does not guarantee that at any given time a highway will be free of ice or snow, even following treatment.

### **3 Legislation and Guidance**

- 3.1 Section 41 of the Highways Act 1980 imposes a duty on highway authorities to maintain highways maintainable at public expense. In particular, Section 41 (1A), as inserted by Section 111 of the Railways and Transport Safety Act 2003, which imposes a duty on highway authorities to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice.
- 3.2 The Department for Transport (DfT) has advised that it is for the courts to decide what is reasonably practicable. However, DfT strongly recommends that local highway authorities carry out winter maintenance in accordance with Section 13 of Well-maintained Highways: Code of Practice for Maintenance Management and any supplementary guidance. Amongst other recommendations, the Code states that best practice would be for local highway authorities to adopt and publish a Winter Service Plan and a Winter Service Operational Plan, which should be reviewed annually to take account of changing circumstances.
- 3.3 Under Section 150(1) of the Highways Act 1980, there is a requirement for the Highway Authority to remove an accumulation of snow which forms an obstruction, and Section 150(3) of the Act states that the following factors should be taken into account:
- the character of the highway and the nature and amount of traffic using it
  - the nature and extent of the obstruction
  - the resources of the workforce, vehicles and equipment available to the Highway Authority and extent to which those resources are being, or need to be, employed on such work
- 3.4 In addition, the Traffic Management Act 2004 places a network management duty on all local traffic authorities in England. It requires authorities to do all



that is reasonably practicable to manage the network effectively to keep traffic moving.

- 3.5 Thus it is recognised that it would not be practical for any Highway Authority to treat all roads and footways in the event that ice forms or snow falls.

## **4 Objectives, Resilience and Efficiencies**

### **4.1 OBJECTIVES**

- 4.1.1 The objectives of the winter service, so far as is reasonably practicable, are to:

- ensure the safe movement of vehicles and pedestrians on the highway network
- minimise delays, accidents and damage to the highway resulting from ice and snow
- undertake the winter service effectively and efficiently within the limitations of finite resources according to the network hierarchy and severity of weather conditions
- provide support to wider area emergencies and incidents by implementing mutual aid arrangements with other partners within the limits of the resources available

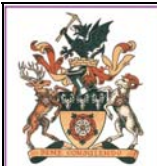
### **4.2 RESILIENCE**

- 4.2.1 The Council's winter service standards are based on the national guidance and are described as:

- **Overall Winter Service Period** – usually starts on 1<sup>st</sup> October and finishes on 30<sup>th</sup> April inclusive. This is locally defined since the winter period may vary according to climatic conditions
- **Core Winter Service Period** – usually starts at least December and runs to February inclusive. This is locally defined since the winter period may vary according to climatic conditions
- **Minimum Winter Service Network** – This is the part of the carriageway network that is normally treated which provides a minimum essential service to the public, including strategic routes, access to key facilities and other transport needs

- 4.2.2 The council's current winter service resilience standards are currently under review having due consideration for the number of days resilience to be adopted, in the light of the above definitions, for the Overall Winter Service Period and Core Winter Service Period and whether it should refer to the





normally salted network or to a smaller locally determined Minimum Winter Service Network.

4.2.3 In developing and assessing the risks for the new winter service resilience standards the Council will consider the:

- Derbyshire network to be treated
- adjoining council highway networks
- management of salt and grit etc.
- operational resources (including equipment, salt stocks and fuel)
- access to winter service depots and salt storage areas
- training for staff
- availability of operational staff

4.2.4 Road conditions can vary across the county due to the topographical differences between the north and south of the county, which may have a bearing on how resilience standards are deployed.

### **4.3 EFFICIENCIES**

4.3.1 Budgetary constraints and the need to provide value-for money services are key issues for most, if not all, local authorities. For highway authorities, Winter Service presents particular challenges due to:

- the running costs of salting vehicles and crews
- the cost of salt
- changeable weather conditions
- high public demand for clear and safe roads
- the investment cost of holding large stocks of salt

4.3.2 Recognising these issues the Council has embarked on a major project to increase the efficiency and cost-effectiveness of the Winter Service operations.

4.3.3 The Authority currently operates 47 front line vehicles, with a potential team of 140 drivers based at strategically located depots, to salt the precautionary salting network.

4.3.4 One of the key aims is to ensure that all designated routes are salted efficiently and that salt is not wasted, as a result the salting routes are continually optimised to make them more flexible and efficient based on the following by:

- equipping all salting vehicles with a GPS based control system that can not only provide driving directions to the vehicle operator, but also instruct the operator when to salt



- the use of the Authority's GIS systems to prepare and amend detailed, accurate routes for a wide range of weather scenarios
- a software solution to facilitate the rapid creation of routes, and to generate for each route the requisite waypoints and control points for input to an in-vehicle control system

4.3.5 Local joint arrangements with adjoining County / City / District / Borough / Town / Parish Councils, wherever they are cost effective and operationally efficient, shall be continually defined and implemented through the Mutual Aid process. An example of this is our working arrangements with High Peak Borough Council – see more details in Section 18.

4.3.6 The Authority shall continue to monitor performance during service delivery and respond effectively to changing conditions and or network incidents.

## **5 Weather Forecasting and Monitoring**

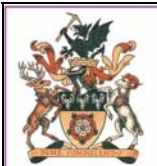
5.1 Weather information is obtained from specialist forecasters, roadside monitoring stations and in unpredictable circumstances it may be supplemented by patrol inspections.

5.2 The County Council maintains a contract with an appropriate forecasting organisation that provides daily weather forecasts that are detailed for Derbyshire and updated frequently. In addition, forecasters are available at any time of the day or night to discuss the forecast and changes in conditions. Additional real-time information is provided by a network of roadside sensor stations around the county that report on air temperature, ground temperature, relative humidity and in some cases provide local site forecasts.

5.3 When available forecast information is uncertain or conditions are changing unpredictably, winter service inspectors or parish wardens may be mobilised or requested respectively to report on conditions along pre-determined routes or at specific points of interest.

5.4 These sources of information inform treatment decisions that are made by the duty winter service supervisors.

5.5 Severe winter weather is defined as when a severe weather warning has been issued by the Met Office, which are issued when the probability of a specified event occurring exceeds a pre-defined threshold, for example, if there is greater than 60% probability of snow falling at a rate of more than 2 cm/hour for over 2 hours.



5.6 Further information on 'Snow Patrols' is available in Sections 12 and 18.

## **6 Precautionary Salting**

### **6.1 GENERAL**

6.1.1 Winter Service operations will give priority to routes comprising the Principal Road Network, main and secondary distributor roads, links to villages, major bus routes, emergency service locations and reasonable proximity to schools.

6.1.2 The treated network is approximately 47% of the road network, which is split into three categories; the primary, secondary and tertiary networks. These routes are reviewed annually by taking into account any service requests received or difficulties encountered in delivering the service during the previous winter season.

6.1.3 Schools, health centres and other community facilities should be given a higher priority within the network by including them, where possible within the primary route network. In instances where they cannot be directly served by the primary network they will, where possible, be within a short distance. Priority will also be given to establishments for older people, previously not included on the precautionary routes and these are included on the tertiary network, where practicable.

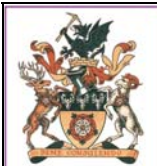
### **6.2 EXCEPTIONS**

6.2.1 It should be noted that whilst the principles set out in this plan have been used to determine the salting networks, there remains that there are possibly short sections of road that would otherwise be included in the salting networks which it is not practicable to include due to permanent or temporary width and / or weight constraints.

6.2.2 Network Rail level crossings have equipment which is prone to signal failure when solutions, high in salt, exist. Consequently any lengths of road on the salting networks between the 'STOP' lines at level crossings will not be salted.

### **6.3 CARRIAGEWAY PRECAUTIONARY NETWORK (PRIMARY ROUTES)**

6.3.1 The proposed primary network consists of the major roads, including all 'A' roads and heavily used 'B' roads, major bus routes and strategic roads. It does not contain all bus routes and generally does not contain roads within residential areas. It is estimated that the total length of this network equates to approximately 60% of the total length of highway on the precautionary network,



consisting of around 26 routes. This network receives pre-treatment on the forecast of snow or ice and operations will be carried out 24 hours a day if necessary.

6.3.2 The Primary Precautionary Network is pre-defined and comprises:

- The Principal Road Network, Main Distributor roads and Secondary Distributor roads (as defined in the Council's carriageway hierarchy)
- Commuter routes (rural roads carrying more than 2,000 vehicles per day, where no treated routes exist)
- Locally important roads in the carriageway hierarchy and at least one route in to all villages so far as is reasonably practicable
- Sections of the network sufficient to provide Local Bus Services into most areas; following as near as possible the regular routes. This to include all areas necessary for practical operations such as Bus Stations and designated turning facilities
- No greater than 500m from a school, so far as reasonably possible
- Emergency Service locations - police stations, fire stations, hospitals and ambulance stations
- Transport interchanges

6.3.3 Treatment of the Primary Precautionary Network takes place in accordance with available forecast and local condition information and the decision matrix in the Winter Service Operational Plan. The aim is to treat the Primary Precautionary network in advance of the onset of potentially hazardous conditions so far as is reasonably practicable. Treatment is usually carried out during the evening so as to avoid late afternoon traffic and to limit disruption to operations next working day due to statutory limits on driver's working hours, or is carried out at suitable times if the next day is not a working day. There will be some occasions when prevailing weather conditions make late-call or night-time treatment unavoidable.

6.3.4 The response time for the precautionary network from the point at which gritting is called to the point at which the gritters leave the depots is 1 hour. The target completion time for each route is up to 3.5 hours from the point at which the gritter leaves the depot to the point at which treatment is complete, which is dependent on the route and traffic conditions.

## **6.4 CARRIAGEWAY SECONDARY NETWORK (SECONDARY ROUTES)**

6.4.1 The secondary network consists of the majority of the remaining 40% of the treated network being around 550 miles in total, including bus routes not contained in the primary network, particularly those within residential areas where significant on-street parking takes place, and less strategic roads



serving villages. Treatment will only be given during normal day time hours (8am to 4pm) but, wherever possible; pre-treatment to these roads will be undertaken before the onset of adverse weather conditions. However, the primary network will take priority; therefore it will be inevitable that in many cases it will only be possible to undertake post treatment. In these circumstances and under normal winter conditions, it is expected that these routes will be completed by mid-morning.

6.4.2 The Secondary Network is defined and comprises:

- Less significant local, village and estate distributor roads having considerable traffic flows
- Sections of the network used by Local Bus Services which are not included on the Primary network.

6.4.3 The treatment of the Secondary Network will only be during normal daytime working hours (8am – 4pm). Given adequate prior warning, treatment will be given on the preceding day. Where adequate warning is not given, treatment will be after the event provided this is still required. Hoar frost is not treated unless conditions are exceptional.

6.4.4 The target completion time for each route is up to 3.5 hours from the point at which the gritter leaves the depot to the point at which treatment is complete, which is dependent on the route and traffic conditions.

6.4.5 These roads are generally lower in the Council's carriageway hierarchy with a lower priority for treatment because they may have any combination of the following:

- low speed limit
- lower average traffic speeds
- lower traffic flows
- not on a school bus route
- low ice / snow accident record
- no steep gradients
- not prone to flooding
- low injury accident record
- no severe bends
- a reasonable alternative treated Primary Route nearby
- carriageway is predominately straight and flat

6.4.6 Secondary routes will also be reviewed annually taking into account any service requests received or difficulties encountered in delivering the service during the previous winter season.



6.4.7 For further details on risk assessments see the Risk Matrix in the Winter Service Operational Plan.

## **6.5 CARRIAGEWAY NON-PRECAUTIONARY NETWORK**

6.5.1 This is not generally problematic, except in lying snow conditions, consequently they are not normally treated. For snow conditions see section 7 for the Tertiary Network (Snow Routes)

## **6.6 CYCLE LANE AND CYCLE TRACK PRECAUTIONARY NETWORK**

6.6.1 These routes are currently being considered.

## **6.7 CYCLE LANE AND CYCLE TRACK NON-PRECAUTIONARY NETWORKS**

6.7.1 Cycle lanes on the main routes will be treated at the same time as those roads. Cycle lanes on lower priority routes will be treated at the same priority as those routes. During severe weather cycle tracks off the road network may be treated during normal working hours by the manual application of salt, on a "reactive salting" basis, after treatment of higher priority routes have been completed, having regard to available resources and prevailing conditions. The treatment of these will reflect their importance in the Council's cycle route hierarchy.

## **6.8 FOOTWAY NETWORKS**

6.8.1 During the treatment of the main routes on the carriageway network, the adjoining footways should benefit from some overspray. During periods of severe weather footways may be treated during normal working hours by the manual application of salt, on a 'reactive salting' basis, after the treatment of higher priority routes has been completed, having regard to available resources and prevailing conditions.

6.8.2 Any treatment of footways will reflect their importance in the Council's footway hierarchy.

6.8.3 The Council will also use the High Peak Borough Council model for dealing with footways – see more details in Section 18.





## **7 Snow Clearance of Carriageways, Footways, Cycleways and Cycle Tracks**

### **7.1 GENERAL**

- 7.1.1 The objective is to carry out snow ploughing / clearing operations to maintain carriageways open to traffic, to remove blockages and to re-open routes by salting, gritting, ploughing, excavating and snow blowing as appropriate to the conditions.
- 7.1.2 As snow becomes compacted it is more difficult to clear. It would be ideal to treat roads before snow accumulates or if that is not possible as soon as possible following snow fall. The ability of the County Council to do this is constrained by plant, labour and legislation relating working hours and drivers' hours.
- 7.1.3 Where forecasts indicate that adverse conditions are likely to result in the need for snow clearance, appropriate resources are placed on standby to be mobilised. These resources can be any of the County Council's highway contractors, pre-assessed private contractors and individuals with suitable equipment and resources and contractors of other councils and public bodies.

### **7.2 CARRIAGEWAY TERTIARY NETWORK (SNOW ROUTES)**

- 7.2.1 These networks will be treated in snow conditions only and will form the basis of priorities when the Primary and Secondary Precautionary Routes have been cleared. They will be cleared using mainly external resources provided sufficient external resources can be secured. Roads to be covered will include at least one route to isolated villages, roads serving industrial undertakings and roads serving schools not currently served by the precautionary network.

### **7.3 CARRIAGEWAY PRIMARY SNOW CLEARING NETWORK**

- 7.3.1 Priority is given to clearing the roads on the precautionary salting routes. Snow clearance routes will generally follow the precautionary salting routes with priority being given to clearing the classified 'A' and 'B' roads first, followed by the other roads included in the precautionary routes.
- 7.3.2 In prolonged or very severe snowfalls, resources will be concentrated on keeping the principal traffic routes (class 'A' roads) open and only after this objective has been achieved will attention be given to the remaining roads on the precautionary salting routes.



7.3.3 Where conditions or site circumstances require, 24 hour working it will be introduced to maintain or restore the principal traffic routes to provide a basic network from which further snow clearance operations can proceed.

7.3.4 This network will be modified if additional locally important sites are identified or to compensate changes to the primary and secondary networks accordingly.

#### **7.4 CARRIAGEWAY SECONDARY SNOW CLEARING NETWORK**

7.4.1 This network will be cleared as the next priority, after above, but only after Primary Network has been cleared.

#### **7.5 CARRIAGEWAY – THE REMAINING NETWORK**

7.5.1 Snow clearing of all other roads is restricted to normal working hours and proceeds only when the precautionary and tertiary networks have been cleared. However there may be exceptions, in the future, to this rule. See details below.

7.5.2 In such circumstances where there is a delay from the onset of adverse weather conditions to the commencement of clearance operations, priority is then given to re-opening routes into isolated communities from the main road network.

7.5.3 The Council is continually identifying sites where non-treatment is likely to cause significant disruption especially in rural communities, where public transport is less available and fewer roads are included in the precautionary network. Consideration will be given to treating these, based on firm forecasts of significant snow fall at the earliest opportunity utilising both internal and external resources.

7.5.4 Un-planned road closures may be instigated, in the interests of safety, if adverse weather becomes persistent.

#### **7.6 PRIMARY FOOTWAYS**

7.6.1 The clearance of snow from footways is undertaken when labour resources normally employed on highways maintenance work and precautionary salting become available.

7.6.2 Priority attention is given to categories '1A' and '1' footways in town centres and clearance work will be restricted to normal working hours.





7.6.3 For additional assistance the Council's will use the High Peak Borough Council model for dealing with footways – see more details in Section 18.

## **7.7 PRIMARY CYCLEWAYS**

7.7.1 The clearance of snow from remote cycleways is undertaken when labour resources become available after primary footways have been cleared.

7.7.2 Cycleways will be cleared where they form part of the carriageway and will be dealt with in accordance with the priority for that road.

7.7.3 Priority attention is given to cycleways in town centres and clearance work will be restricted to normal working hours.

## **8 Network Users, Promoted Facilities and Community Self Help**

### **8.1 Schools**

8.1.1 Although most schools are on or reasonably close to the precautionary and tertiary networks and therefore receive treatment some rural schools are remote, which can lead to particular difficulties in severe conditions. In addition any footways adjacent to schools may be currently untreated; consequently Environmental Services are engaging with the Children and Younger Adults Department and individual schools, as appropriate, for joint working arrangements to improve the winter service in the immediate vicinity of schools.

### **8.2 Emergency Services**

8.2.1 The Council will proactively engage with the emergency services to not only encourage them to develop their own severe weather contingency plans but to work closer with them to consider collaborative arrangement especially in extreme winter conditions.

8.2.2 Emergency services are routinely accounted for on the precautionary and tertiary networks as part of the normal winter service.

### **8.3 Transport Interchanges**

8.3.1 These are routinely accounted for on the precautionary and tertiary networks as part of the normal winter service.



## **8.4 Pedestrians and Cyclists**

- 8.4.1 Pedestrians and cyclists are routinely accounted for on the precautionary and tertiary networks as part of the normal winter service.

## **8.5 Vulnerable Network Users**

- 8.5.1 Persons at risk are routinely accounted for on the precautionary and tertiary networks as part of the normal winter service.

## **8.6 COMMUNITY SELF HELP**

- 8.6.1 This plan does not prioritise the treatment of many residential and side roads or footways. Indeed, during severe weather, there can be periods when most or all resources are targeted at the main routes and it may not be possible to clear the snow routes let alone the lower priority areas for several days. To help fill this gap, the Council has an aspiration to promote a greater sense of civic responsibility for local communities to take action in their locality, especially the Borough, District, Town and Parish Councils.
- 8.6.2 There is a widespread fear held by members of the community that they risk being 'sued' if they clear snow from the footway outside their properties, which now appears largely imaginary and media driven. There is advice available on how to minimise the risk of legal action which is in Appendix A to this plan.
- 8.6.3 Other councils, communities and individuals can therefore be given clear advice on the legal position about clearing snow and ice from public areas.

# **9 Salt Management**

- 9.1 Salt is restocked during the summer in advance of the winter season. Restocking during the winter is dependent upon operational requirements.
- 9.2 Salt for use in gritters is 10mm size rock salt. Salt for use in salt bins and salt heaps may be mixed with fine grit to extend the quantity and to discourage inappropriate use and theft.
- 9.3 Salt is generally restocked over the summer months when prices can be lower plus demand on salt suppliers is minimal and it can therefore be planned and co-ordinated with the supplier and contractor to minimise cost.



- 9.4 Following the national salt supply crisis in February 2009, the capacity of salt storage has now been increased by up to 10,000 tonnes. This is strategically stored at Ryder Point in Wirksworth.
- 9.5 There could be additional costs involved in redistributing salt in the event that it is required during the winter season and in any event towards the end of the season stocks are run down in order to prevent stockpile consolidation and to prepare for summer restocking.
- 9.6 By careful use of advance weather forecasts the aim is to reduce stocks towards the end of the winter season in order to enable salt storage maintenance and restocking at summer supply rates.
- 9.7 The Council now uses strategic salt reserves alongside other options for improving the winter service, which include:
- ensuring access to adequate levels of salt supplies (either through holding larger stockpiles of salt or through contingency arrangements for alternative supplies should normal arrangements fail) to keep the routes open in the event of severe weather
  - revising procurement approaches to manage risk better, improve communication mechanisms and agree performance standards
  - acquiring knowledge of alternative suppliers and putting in place contingency contracts so that if supply becomes an issue, the Council can act quickly in terms of securing additional supplies
  - identifying trigger points which would give advance warning of shortages to allow alternative supplies to be secured in time in the event of disruption to normal supplies
  - working in partnership with other councils to develop collaborative / joint salt procurement contracts
  - mutual aid
  - a Critical Salt Levels Emergency Plan

## **10 Critical Salt Levels Emergency Plan (Resilience)**

### **10.1 GENERAL**

- 10.1.1 In the event that salt stocks approach critical levels, a Command Control is called and salt conservation measures initiated.



10.1.2 This Salt Emergency Plan is for use when salt stocks across the County are predicted to fall below 6,000 tonnes and prolonged Severe Winter Weather is forecast.

10.1.3 As soon as it is identified that this condition is likely to develop, the Command Control involving internal and external stakeholders and the emergency services is to be called.

## **10.2 SALT SUPPLIES**

10.2.1 In the event that supplies from the contracted supplier are insufficient or stopped the following action or actions may be taken:

- continually press the supplier to increase deliveries stressing how many salting runs remain so that the urgency is clear
- contact alternative suppliers
- contact adjacent highway authorities requesting supplies on loan or for purchase
- contact the Highways Agency for assistance
- use mutual aid via the Council's partnership arrangements
- work with any national arrangements in place for salt priority distribution

## **10.3 EXTENDING EXISTING SALT STOCKS**

10.3.1 Targeting salt storage with the least stocks first, extend rock salt by pre-mixing with fine 3mm aggregate or sharp sand in a proportion of 1:1 or as may be deemed appropriate.

## **10.4 CONSERVING SALT STOCKS – GENERAL ACTIONS**

10.4.1 The purpose is to extend the availability of salt or salt mixtures for use on strategic routes.

10.4.2 Actions can be one or any combination of:

- cease responding to requests for spot treatment. Exceptions may be made for genuine immediate emergencies involving threat to life
- in snow conditions, plough routes without salting if practical. When snowfall ceases, assess the conditions and consider applying salt, salt / grit mixture or grit to the ploughed surface
- allow snow to compact under the action of traffic on some or all of the precautionary routes without salting
- consult the CSS advice note on how to preserve salt stocks



- cease the refilling of grit bins and not providing salt heaps

## **10.5 CONSERVING SALT STOCKS – ROUTE RESTRICTIONS**

### 10.5.1 Actions can be one or any of:

- reduce the extent of initial ploughing on Precautionary Network routes
- treat only primary precautionary routes, with reduced or no secondary routes treated
- treat ploughed routes only on a pre-defined Minimum Winter Service Network and or an improvised core primary network principally consisting of ex-trunk routes, routes linking major population centres to principle emergency facilities and linking to national trunk routes

## **10.6 MEDIA**

- 10.6.1 The Council will engage with the media to provide realistic expectations of people's ability to travel for essential purposes only and the Council's website will be updated as necessary.

# **11 Salt / Grit Bins**

## **11.1 GENERAL**

- 11.1.1 The following criterion is adopted for the provision of new salt bins on the adopted highway.

- 11.1.2 The Council will not provide additional salt bins to be maintained by the Authority; however each year requests from borough / district / parish councils for new salt bins will be prioritised against the following criteria and new bins may be provided for the top priority dependent on available resources. Unsuccessful requests will be included in future years' prioritisation exercises.

## **11.2 CRITERIA FOR SALT BIN PROVISION:**

- On roads included on the precautionary salting network salt bins will not normally be provided except at locations where, in times of snow, queuing traffic may encounter problems, e.g. steep slopes leading to junctions, traffic signals and roundabouts and at other known locations where vehicles can get into difficulties in snow conditions
- On roads or footways not included in the precautionary salting network, bins may be provided at:



- locations with steep gradients, bad bends, drainage problems, exposed sites and difficult junctions
  - locations used extensively by the elderly, infirm or very young
  - rural roads providing access to isolated properties
  - pedestrianised areas and other footways subject to heavy pedestrian use in town centres and busy shopping areas that are part of the publicly maintainable highway
- Funding for salt bins, following requests for provision and prioritisation:
    - cost of initial provision, siting and filling of bin to be funded by the County Council
    - future maintenance, refilling and replacement of bins to be at the expense and responsibility of the appropriate borough/district/parish council requesting the provision
  - The appropriate borough / district / parish council will be responsible for ensuring that the salt bins provided are clearly marked with the name of the Authority responsible for maintaining the bin together with a contact telephone number
  - Salt Bins are not provided or maintained free of charge to unadopted highways. However they may be accepted on highways submitted for adoption provided the borough / district / parish council accepts responsibility for the future maintenance and refilling
- 11.2.1 All bins / heaps are positioned on digital maps by their co-ordinates to enable more efficient filling and their respective attributes will show who is responsible for their maintenance etc.
- 11.2.2 Contact details for the re-filling of the bins will be clearly marked on all bins.
- 11.2.3 The Council is using a more efficient method of filling bins, in conjunction with the respective owners, by providing a bespoke service for the filling of all bins.

## **12 Operational Arrangements with Partners**

- 12.1 For reasons of route integrity mutual arrangements may be made, as required, with neighbouring authorities for precautionary gritting etc. These are listed in the Winter Service Operational Plan.
- 12.2 Reciprocal arrangements for precautionary gritting may be made with neighbouring authorities under section 8 of the Highways Act 1980 and legally





confirmed as appropriate. Under such arrangements mutual aid may also be considered, which is detailed in the Winter Service Operational Plan.

- 12.3 There will be a co-ordinated approach to implementing Minimum Winter Service Networks across adjacent highway authorities; however there may be occasions, which could occur where different treatment regimes are planned for the respective road networks.
- 12.4 The Council will engage, as necessary, with the District and Parish Councils to identify possible available resources to support the County Council's Winter Service.
- 12.5 The County Council will continue to develop a network of Snow Wardens and Patrols. Some Parish Councils have appointed Snow Wardens and their functions during severe weather conditions will be:
- To provide information to the County Council on the local situation during the period of severe weather conditions
  - To consult with the County Council on the local needs and determine jointly what local action to take, if necessary, to supplement the operation of the Department
  - To organise that action utilising the local resources agreed with the County Council
- 12.6 Further information on 'Snow Patrols' is available in Sections 5 and 18 and the Winter Service Operational Plan.

## **13 Winter Service Operational Plan**

- 13.1 The Council's Winter Service Operational Plan is maintained with the purpose of providing the necessary procedural and functional arrangements necessary to carry out the service in accordance with this Plan.
- 13.2 The Operational Plan includes such things as:
- details of the precautionary and secondary routes
  - precautionary decision matrices – see Appendix B for further details
  - arrangements for communications between the Winter Service Supervisors, contractor, inspectors and emergency services
  - procedures for linking to weather forecasters and agency services
  - procedure for recording daily decisions and actions during the winter season
  - record of current winter service fleet vehicles and equipment



- pre-season fleet preparation activities
- inspection routes (post snow inspections)
- snow clearing zones and arrangements
- prolonged severe weather arrangements
- salt restocking arrangements
- mutual aid

13.3 All aspects of the Winter Service Operational Plan, including service delivery arrangements, will be reviewed annually in consultation with key stakeholders to allow for any changes in circumstances. It is reviewed after the end of a winter season in readiness for the forthcoming winter season.

## **14 Communications and Publicity**

- 14.1 It is inevitable that roads will become difficult and indeed impassable in winter conditions particularly given the topography of Derbyshire. It is also practically impossible to treat all roads. There is therefore a need to let the travelling public know which roads are available and which are not. This has historically been carried out through the local media, mainly local radio stations.
- 14.2 The primary means to inform the public about the Winter Service is on the Derbyshire County Council website, which is continually being updated and this is supplemented by press releases and printed material.
- 14.3 The Council's Snow webpage ([www.derbyshire.gov.uk/snow](http://www.derbyshire.gov.uk/snow)) provides a single portal for the public to obtain a variety of key information during severe weather. This includes gritting routes, reporting a grit bin empty (including District and Parish owned grit bins) and information on disruptions including road, school and library closures together with event cancellations.
- 14.4 In addition, members of the public are able to learn more about what the Council is doing to assist local communities such as the Snow Warden Scheme, working with farmers / contractors and providing links to partner websites.
- 14.5 Further information is available providing advice on emergency help, how to keep warm, winter driving tips and snow buddies.
- 14.6 The website will be updated regularly during snow events at 9am, 1pm and 3pm with the most up to date information available, this will include details of which routes have been gritted and when, together with those routes that have not been completed and the roads that have been missed (for example due to parked vehicles).





- 14.7 Information on the condition of the top 10 worst affected county roads will also be available.
- 14.8 To assist in managing expectations in terms of the assistance the Council is able to offer, during periods of severe weather, it is paramount and therefore it is considered appropriate that the following will be included in all relevant Council communications:
- 'In heavy snow and freezing conditions, our main focus is on keeping main roads, bus routes and routes to essential services open. We cannot guarantee we'll grit roads which are not on these routes. You can request a road to be gritted by filling in the online form. But we'll only consider these roads when priority routes have been treated and any requests will be dealt in order of where need is greatest.'*
- 14.9 Also included is the principle criteria used in assessing the placement of salt bins and salt heaps.
- 14.10 In prolonged severe weather conditions additional information is made available through all available media.
- 14.11 The Council also uses social networking sites as an additional means of providing up to date information.

## **15 Climate Change**

### **15.1 GENERAL**

- 15.1.1 The Council is currently working to various National Indicators for dealing with the effects of climate change of which, NI 188, covers adaptation and mitigation of the outcomes on the highway network including Winter Service.

### **15.2 PLANNING TO ADAPT TO CLIMATE CHANGE (NI 188)**

- 15.2.1 The rationale for NI 188 is to ensure local authority vigilance to manage risks to service delivery, the public, local communities, local infrastructure, businesses and the natural environment from a changing climate, and to make the most of new opportunities.
- 15.2.2 Local authorities should report the level of preparedness they have reached against the 5 levels of performance, graded 0 to 4. The higher the number is, the better the performance.



15.2.3 The Council has begun the process of assessing the potential threats and opportunities across its estate and services and particularly in Highway Network Management has already achieved Level 2 and is currently working towards level 3 for Highway Network Management including Winter Service.

### **15.3 CRITERIA**

15.3.1 **Level 2: Comprehensive risk-based assessment and prioritised action in some areas** - The Authority has undertaken a comprehensive risk based assessment of vulnerabilities to weather and climate, both now and in the future, and has identified priority risks for its services. It has identified the most effective adaptive responses and has started incorporating these in council strategies, plans, partnerships and operations.

15.3.2 **Level 3: Comprehensive action plan and prioritised action in all priority areas** - The Authority has embedded climate impacts and risks across council decision making. It has developed a comprehensive adaptation action plan to deliver the necessary steps to achieve the existing objectives set out in council strategies, plans, investment decisions and partnership arrangements in light of projected climate change and is implementing appropriate adaptive responses in all priority areas.

## **16 Co-ordination and Collaboration**

16.1 The Council is constantly reviewing and determining critical areas and infrastructure in conjunction with key public services and other stakeholders and seeking to ensure that the appropriate winter service has been considered by the appropriate party. This may include:

- shared services
- lead authority arrangements
- collaborative service procurement
- sharing depots and salt stock

16.2 This is also referred to in the arrangements for mutual aid.

## **17 Staff Training and Development**

17.1 To ensure the appropriate level of competence, the training and development needs of all personnel will be reviewed annually, including health and safety and any appropriate vocational qualifications.



## **18 Mutual Aid**

- 18.1 Mutual aid arrangements will be considered as part of the annual review in the Winter Service Operational Plan. These may be formal or informal processes with the Council's partners.
- 18.2 The Council seeks to expand working arrangements with Borough / District / Parish / Town Councils by using the High Peak Borough Council model for partnership working.
- 18.3 High Peak Borough Council has previously assisted the County Council and an agreement was reached such that labour resources were provided free of charge to treat pre-defined networks. Plant and materials were provided by the County Council. This arrangement is the main template for discussions for partnership working with other authorities.
- 18.4 Discussions will continue with both District and Parish Councils to establish additional resources in severe weather. Most District Councils have agreed to assist with formal agreements and networks within the major urban areas to be treated in snow conditions. As part of these agreements, the County Council may provide some funding to allow modification or purchase of machinery for snow clearance and gritting mainly of footways and pedestrianised areas.
- 18.5 The Council will pursue town and parish councils to be involved with the Town and Parish Council Winter Service Scheme. Snow wardens will be encouraged to volunteer and all will be invited to undertake training; they can also be provided with protective personal equipment and snow shovels.
- 18.6 Rock salt is generally delivered in advance of the winter period and additional grit bins can be requested by those councils participating in the scheme. In addition to the snow warden volunteers, district / borough council maintenance staff can receive the training and assist with snow clearing when they are unable to undertake their normal duties.
- 18.7 Snow Patrols will operate where nominated representatives from other authorities will report closed or difficult roads and co-ordinate local self-help.
- 18.8 It is clear from previous experience that the most critical factor tends to be the capacity to remove snow. Whilst additional specialist vehicles can give extra capacity, there are alternatives and far less expensive ways to hold spare capacity. Engagement with external contractors can be used, in snow conditions, to initially clear roads. This has been successful with a number of



external contractors, particularly farmers, which helps to increase external capacity. The Council will continue to deploy this resource.

- 18.9 Local farmers and contractors are invited to submit their details of the machinery which is available to assist with snow clearing activities and those selected and approved are notified of the tertiary routes that they will be required to clear in the event of heavy snowfall.
- 18.10 The Derbyshire Local Resilience Forum has an established framework for developing mutual aid agreements.
- 18.11 Further details on cross boundary arrangements with other Councils are in the Winter Service Operational Plan.

## **19 Risk**

### **19.1 FINANCIAL**

- 19.1.1 Winter Service is driven by weather conditions that can vary widely year on year. A level of balances is kept within Network Management to deal with extreme emergencies.
- 19.1.2 The Winter Service budget is calculated based on experience, changes to the network, the current thinking with regards to the impact of climate change and resilience etc. with a factor of safety built in. Extreme winters have the potential to create overspends at the cost to other services.
- 19.1.3 The council has a £2m contingency fund for Winter Service set up to allow for exceptional weather conditions.

### **19.2 OPERATIONAL**

- 19.2.1 The Winter Service Operational Plan details additional policy and all other operational requirements. Confidence in it is high with robust systems being in place and it is reviewed annually.
- 19.2.2 Evaluation and utilisation of modern technology and continual optimisation of the winter service routes improves the council's ability to monitor delivery and strengthen the Council's defence in litigation in the light of current national guidance.



## **20 Benchmarking**

- 20.1 The Council is a member of the Midlands Service Improvement Group (MSIG), which is a collective of Midlands and North West English Shire counties, Shire Unitaries and City Unitaries sharing 'Best Practice' within the disciplines of Highways and Transportation.
- 20.2 The MSIG Winter Service Task Group has a remit to enable effective and efficient delivery and improvement of Winter Service operations across MSIG member authorities, through support, guidance and sharing of data and information.
- 20.3 The Task Group will be evaluating the latest recommendations from the 'Complementary Guidance' update to the Code of Practice for Highway Maintenance Management (Well-maintained Highways) document, which is due out in November / December 2011.
- 20.4 Any outcomes from the Task Group's work may have an influence on this plan, which will be amended accordingly.

## **21 New Developments and Private Streets**

### **21.1 NEW DEVELOPMENTS**

- 21.1.1 The Council has no obligation to provide a winter service until a new road is formally adopted. The developer is responsible for maintaining the road until it is adopted, which includes a provision for a winter service.
- 21.1.2 The Council will try to respond to assist the emergency services when requested by them to do so.
- 21.1.3 Once a development is adopted and if any carriageways and footways that meet the criterion for winter service are added to any of the routes that include Sustainable Drainage Systems (SuDS) or other similar features then these sections may have to be omitted, from the routes, because of the risk of pollution or damage to trees etc. This will depend on how effective the various options are at removing salt and other pollutants from the SuDS.



## **21.2 UN-ADOPTED ROADS AND PRIVATE STREETS**

- 21.2.1 Currently no winter service is provided for these roads and streets; however the Council will try to respond to assist the emergency services when requested by them to do so.

## **22 Call Centre ('Call Derbyshire') and Control Centre**

### **22.1 CALL CENTRE – 'CALL DERBYSHIRE'**

- 22.1.1 The Council's Call Centre - 'Call Derbyshire' provides a speedy and direct response for many of the varied enquiries received, for example, requests for re-filling salt / grit bins, which, in this particular case are dealt with by the Control Centre.

### **22.2 CONTROL CENTRE**

- 22.2.1 The Control Centre deals throughout the year with all types of urgent works that originate either as enquiries from the public, usually via 'Call Derbyshire' and the Council's website or from defects identified by the Council's Inspectors.
- 22.2.2 Routinely the Control Centre has twelve two person 'Rapid Response' gangs available to carry out this work.
- 22.2.3 Following periods of snow and ice additional gangs are drafted in to cope with an appreciable increase in workload for urgent work.
- 22.2.4 During periods when repairs cannot be progressed because snow is on the ground the 'Rapid Response' teams are also used to re-fill salt bins around and provide support for winter service operations around the County.
- 22.2.5 Further details are available in the Winter Service Operational Plan.

## **23 Equality and Diversity**

- 23.1 The County Council is required to have due regard to the need to eliminate unlawful discrimination and to advance the equality of opportunity by considering the need to remove or minimise disadvantages suffered by people due to their protected characteristics, or to meet the needs of people with protected characteristics.





23.2 The Council's Equality Impact Assessment for the Winter Service was updated and approved in November 2011.

23.3 A copy of the full document is available separately.

## **24 Appendix A – Advice to members of the Public**

### **24.1 ADVICE TO MEMBERS OF THE PUBLIC IN SNOWY AND ICY CONDITIONS**

24.1.1 Provided that members of the public who clear snow and ice from pavements or minor roads near their property take reasonable care and apply a common sense approach in doing so, they are unlikely to find themselves being held liable if someone has an accident and is injured on the area they have cleared.

24.1.2 If members of the public take action to clear snow and ice they should ensure that they do not create any further hazards by doing so. For example:

- Do not clear ice using boiling water which then freezes over the surface of the road
- Do not clear an area leaving an obstructive mound of snow on the pavement
- Do not attempt to clear the snow if you feel that this will cause you physical difficulty
- Take reasonable care in all of the circumstances

## **25 Appendix B – Precautionary Salting Matrices**

25.1 The following decision making matrices are for action on receipt of a forecast predicting freezing temperatures – for further details see the notes below.

25.2 The tables below are for guidance purposes only as there will be conditions and circumstances which dictate that the action required differs from that indicated therein.



<b>TABLE 1</b>		<b>PRECAUTIONARY PRIMARY NETWORK DECISION MATRIX</b>				
<b>ROAD SURFACE TEMP.</b> ▶	May fall below freezing	Expected to fall below freezing See Note E				
<b>PRECIPITATION ETC.</b> ▶	No rain No hoar frost	No rain No hoar frost	Expected hoar frost Expected fog	Expected rain before freezing	Expected rain during freezing	Possible rain Possible hoar frost
<b>PREDICTED ROAD CONDITIONS</b> ▼	No fog	No fog				Possible fog
<b>Wet</b>	4	1	1	2 See Note C	1 See Note D	1
<b>Wet Patches</b>	4 See Note A	1 See Note A	1 See Note B	2 See Note C	1 See Note D	1
<b>Dry</b>	3 See Note A	3 See Note A	1 See Note B	2 See Note C	1 See Note D	4 See Note B
<b>Pre-salted within last 24 hours with no rain since</b>	3 See Note A	3 See Note A	1 See Notes A and B	2 See Note C	1 See Note D	1 See Note B
<b>ACTION</b>						
<b>1</b>	<b>2</b>		<b>3</b>		<b>4</b>	
Salt before frost	Salt after rain stops		No action		Monitor weather conditions	





**Winter Service Plan**

<b>TABLE 2</b>		<b>PRECAUTIONARY SECONDARY NETWORK DECISION MATRIX</b>				
<b>ROAD SURFACE TEMP.</b> ▶	May fall below freezing	Expected to fall below freezing See Note F				
<b>PRECIPITATION ETC.</b> ▶	No rain No hoar frost	No rain No hoar frost	Expected hoar frost Expected fog	Expected rain before freezing	Expected rain during freezing	Possible rain Possible hoar frost
<b>PREDICTED ROAD CONDITIONS</b> ▼	No fog	No fog				Possible fog
<b>Wet</b>	3	1	1	2 See Note H	1 See Note G	4
<b>Wet Patches</b>	3	1	1	2 See Note H	1 See Note G	4
<b>Dry</b>	3	3	3	2 See Note H	1 See Note G	4
<b>Pre-salted within last 24 hours with no rain since</b>	3	3	3	2 See Note H	1 See Note G	4
<b>ACTION</b>						
<b>1</b>	<b>2</b>		<b>3</b>		<b>4</b>	
Salt before frost within time constraints	Salt after rain stops, if possible, within time constraints		No action		Monitor weather conditions. Salt if possible, within time constraints	



<b>TABLE 3</b>	<b>NOTES</b>
<b>A</b>	Particular attention should be given to the possibility of water running across the highway, e.g. off adjacent fields and verges after heavy rains, washing off salt previously deposited. Such locations should be closely monitored and may require treating in the evening and morning and possibly at other occasions.
<b>B</b>	When a weather warning contains reference to expected hoar frost considerable deposits of frost are likely to occur. Hoar frost usually occurs in the early morning and is difficult to cater for because of the probability that any salt deposited on a dry road too soon before its onset may be dispersed before it can become effective. Close monitoring is required under this forecast condition which should ideally be treated just as the hoar frost is forming. Such action is not always possible or practicable and salt may have to be deposited on a dry road before and as close as possible to the expected time of occurrence. Hoar frost may be forecast at other times in which case the timing of salting operations should be adjusted accordingly. When hoar frost is forecast to form over an extended period, say from late evening to mid-morning, especially if the road surface is dry, consideration should be given to instructing further salting before the morning peak period.
<b>C</b>	If, under these conditions, rain has not ceased by early morning, crews should be called out and action initiated as rain ceases.
<b>D</b>	Under these circumstances rain will freeze on contact with road surfaces and full pre-treatment should be carried out even on dry roads.
<b>E</b>	Weather forecasts are very often qualified by altitudes in which case differing action may be required from each area and depot.
<b>F</b>	Weather forecasts are very often qualified by altitudes in which case differing actions may be required from each area and depot.
<b>G</b>	Under these circumstances rain will freeze on contact with road surfaces and full pre-treatment should be carried out even on dry roads.
<b>H</b>	Post salt in morning (after 8am) if freezing conditions persist.