HIGHWAYS COLD WEATHER PLAN 2018/19
(5 October 2018 to 26 April 2019)

Produced by:
Network & Asset Management Group, Surrey Highways & Transport

Head of Highways and Transport
Lucy Monie
# RECORD OF AMENDMENTS

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1 INTRODUCTION

1.1 Surrey County Council’s Winter Service is essential in terms of both road safety and the economy. The Service intends, as far as is reasonably practicable, to safeguard the movement and well-being of all Highway users, both the residents of Surrey and those passing through the county. It is economically significant because of the delays and congestion that bad weather can cause.

1.2 Surrey County Council has continued to develop new ways of working and provide appropriate, enhanced levels of resource to deal with the exceptional, severe weather events that now seem to be a regular feature of our lives during winter.

1.3 The report ‘Winter Service Cost Savings Proposal’ was submitted to Cabinet in July 2017. The details of which can be found in section 2 of this document, along with an update on progress up to October 2018.

1.4 Winter Service involves treating the highway in order to:
   
   - Prevent ice from forming (known as “precautionary salting”)
   
   - Melt ice and snow already formed (known as “post salting”)
   
   - Remove snow

1.5 The Winter Service Plan for 2018/19 gives details of how Surrey County Council intends to achieve the standards identified in the County Council's Winter Service Policy Statement. (See Section 3 of this plan)

1.6 The Surrey Winter Service response will be available from 5 October 2018 to 26 April 2019.

2 WINTER SERVICE UPDATE

2.1 A paper recommending options for cost reduction of the winter service for the 2017/18 season were presented to and approved by the Environment and Infrastructure Select Committee in July 2017. The select committee also approved that further cost reduction recommendations would be progressed and implemented for the 2018/19 winter season.

2.2 The report ‘Winter Service Cost Savings Proposal’ was submitted to Cabinet in July 2017, following engagement with industry specialists and SCC’s delivery partners Kier as well as the Winter Task Group and Environment & Infrastructure Select Committee. The approved policy changes are outlined below.
2.3 Cabinet approved the following policy changes, updates on progress are provided under each policy change:

2.3.1 Highways & Transport Service have been given the power to postpone the hire of salting vehicles at the start of the season, or to off-hire them early at the end of the season. This will only be done following a risk assessment using forecast data to manage the risk of doing so. This will lead to a maximum of three weeks reduction in vehicle hire cost and standby resource each season.

- **October 2018 Update** – This change has been successful. The hire period of vehicles was reduced by three weeks total for the 2017-18 winter season. It is important to note that this cost reduction will vary depending on the forecast each year, and is based on an assessment of the risk

2.3.2 Discontinuing the hire of one mini-gritter – Narrower vehicles are used to treat roads that are difficult to access. Previously two vehicles were necessary for this, but the same level of service is now possible using only one vehicle.

- **October 2018 Update** – This change has been successful. One mini-gritter (reduced width vehicle) has proved sufficient to treat all narrow road sections across the county.

2.3.3 Increasing the length of time allowed for each salting treatment from 2 hours 30 minutes to 3 hours. Increasing the maximum time allowed to treat each salting route puts Surrey in line with many other Local Authorities. The main benefit of this is that each vehicle will be able to treat a longer length of road during each treatment, therefore being more efficient. This will contribute to a reduction in the number of individual routes and therefore the number of salting vehicles required to treat the network.

- **October 2018 Update** – The increase in treatment time, coupled with a full review of why each road is salted, followed by a consultation with Local Highway Teams and the Local Committees, has helped to reduce the need for two routes from 35 salting routes to 33 routes. Savings have been made by requiring two fewer vehicles.

2.3.4 Enabling Highways & Transport Service to determine suitable treatment types. This policy change allows the service to respond to other treatment types and innovations. In tandem with the increased treatment time, the use of different treatment types can help deliver an increased efficiency of each vehicle and a reduction in total number of vehicles.

- **October 2018 Update** – A project was run over the past year investigating the best treatment options, talking to specialists within the industry and benchmarking with other Local Authorities. The decision was made to remain with pre-wet salt for the 2018-19 winter season. This will continue to be monitored.

2.3.5 Grit bins have been surveyed over Summer 2018 ahead of the 2018-19 winter season. Grit bin filling is in progress and expected to be complete in November.
It should be noted that policy is for bins to only be filled once ahead of the winter season, further fills will only be undertaken following severe snow and cold weather subject to prioritisation and approval of funding.

2.4 Further to the changes outlined above, a project was undertaken in 2017-18 reviewing all salted roads to ensure that they were in line with the criteria for salting routes laid out in this policy (criteria can be found in section 3 Carriageway Treatment section of this Cold Weather Plan).

- A desktop study was undertaken to record against each road why it is treated
- The Local Area Highway Teams were consulted to give feedback and challenge the data supporting each road’s inclusion from a local perspective
- Once each road had been reviewed the Local Committees were consulted on the proposed changes.
- The result of this consultation is a slightly reduced Priority 1 network length of 1913km compared to 1935km the previous year. Any road removed from the Priority 1 network has been added to the Priority 2 network.

2.5 The 2017-18 winter season continued the colder trend Surrey had experienced in 2016-17 – which had been colder than the previous few years. In contrast to last winter, this winter brought more unsettled weather and snow, leading to Surrey using 11,000 tonnes of salt on the network, compared to 7,000 tonnes used on average over the past 5 years.

2.6 The 2017-18 winter started fairly warm but dipped significantly during December through to March. Significant snow was seen in February and March. Late February saw the arrival of a historically cold easterly outbreak, and the media dubbed ‘Beast from the East’ and Storm Emma.

2.7 After a small warming in early March, a further dip in temperatures occurred along with some further snow on 17/18 March.

2.8 During an average winter we undertake 52 precautionary salting treatments on the Priority 1 (P1) network. During last winter we undertook 67 full runs of the Priority 1 routes, seven runs of just the high cold routes in the North East of Surrey on marginal nights, and treated the Priority 2 routes four times during the more extreme cold and snow.

2.9 The snow event at the end of February saw Surrey’s Snow Condition Plan successfully tested. At times the extremely low temperatures meant the salt was somewhat less effective at preventing freezing, but despite this Kier’s drivers worked round the clock to keep both Priority 1 and 2 roads treated and as clear as possible. As well as which the Farmers and 3rd party contractors provided an invaluable service ploughing and treating other roads not on the P1/P2 network to help keep Surrey’s roads open.

2.10 Throughout the seventh year of our contract with them, Kier continued to work with officers and members on all elements of the winter service, in particular working towards the cost reduction measures described above. Efficiency gains are now being realised through the adoption of the revised Appendix H of the Well Maintained...
Highways Code of Practice which provides options for reduced salt usage during normal winter conditions, leading to savings on salt usage. Surrey’s Cold Weather Plan is aligned with the risk based recommendations of the new Code of Practice, Well Managed Highways, released on 28 October 2016. Surrey continue to follow the guidance of Appendix H until the planned revision is released.

2.11 In addition to the changes to the Winter Service detailed in section 2.3, we will continue to support the service to residents over the coming winter by;

- Ensuring that we have sufficient salt stock levels
- Continuing our partnership with district and boroughs provide up to 40 tonnes of salt to helping them to keep key pavements and town centres clear.
- Continuing to supply new grit bins, allowing local community groups to buy a grit bin for four years at a cost of just £764 or extend existing maintenance agreements at a cost of £570.
- Continuing to support localism through the grit bin licensing scheme enabling Parish Councils to maintain their own grit bins on the highway.
- Retaining our pool of farmers willing to help out in the toughest of weather conditions (52 farmers).

3 POLICY STATEMENT

3.1 It is the Policy of the County Council to provide a Winter Service that, as far as is reasonably practicable, allows for:

- The “precautionary salting” of roads on major routes within the County.
- The “post-salting” of footways and carriageways in extreme weather to keep congestion, delays and incidents to a minimum.
- The removal of snow from the key areas of the public highway.

3.2 Surrey County Council as the Highway Authority for Surrey has a statutory duty to maintain the public highway. Section 41a of the Highways Act 1980 states that local authorities ‘have a duty to ensure, so far as is reasonably practicable, that safe passage along the highway is not endangered by snow or ice’. The qualification of ‘reasonably practicable’ being that this is not an absolute duty. In addition, highway authorities may take preventive measures against the accumulation of snow and ice.

3.3 Surrey County Council, as the Highway Authority, takes its Winter Service responsibilities extremely seriously. Until recently there has been no legal duty on Highway Authorities to take preventative measures in anticipation of snow or ice. This meant that, so long as any decision as to whether or not to act was taken on reasonable grounds, with due care and with regard to relevant considerations, the authority would not be liable. Moreover it had been said judicially that when there is a transient danger due to the elements, be it snow or ice or heavy rain, the existence of danger for a short time is not evidence of a failure to maintain the highway.
3.4 Following the introduction of the Railways and Transport Safety Act 2003 (31 October 2003), Highway Authorities have to ensure that, so far as is reasonably practicable, safe passage along a highway is not endangered by snow and ice. It is the belief of Officers that the arrangements Surrey County Council has in place are at least adequate to discharge this duty.

3.5 Highway Authorities are permitted to take preventative measures against the accumulation of snow and ice and to protect the highway over and above the minimum statutory requirements. The use of this power is relevant to an Authority's road safety responsibilities as well as its highway maintenance function.

**County Council Maintained Highway**

3.6 Surrey Highways delivers the winter service on the Surrey County Council maintained highway.

**Minimum Winter (Resilience) Network**

3.7 As the total highway network cannot be treated simultaneously within the resources reasonably available to the County Council, priorities shall be established as follows.

Following the 2009/10 salt shortage it has been accepted that the “A” road plus network met with the criteria and is deemed as the minimum statutory requirement. “A” roads plus is made up of the following and represents approximately 17% of the County highway network and can be found at [Gritting routes in Surrey](#):

- Surrey Priority Network 1 (Mainly principal roads, plus some important non-principal (B and C roads) with traffic flows greater than 18,000 vehicles and/or 600 HGV per day)
- main access route to A&E and acute and second tier hospitals
- main access route to large/medium population hubs

3.8 These are the most important roads in terms of the volume of traffic carried, the proportion of large goods vehicles and their strategic function as principal links between major destinations within Surrey and beyond or within settlement hubs or other significant urban areas.

**Carriageway Treatment**

3.9 All carriageways forming part of the public highway network shall be allocated to one of the four groupings according to the following criteria;

Priority 1 – approximately 39% of the County highway network
Precautionary salting will be carried out on all Surrey Priority Network (SPN) 1, 2 and 3 roads within the County. These are the most important roads in terms of the volume of traffic carried, the proportion of large goods vehicles and their strategic function as principal links between major destinations within Surrey and beyond or within settlement hubs or other significant urban areas. The routes can be seen at [Gritting routes in Surrey](#) includes:

- Surrey Priority Network 1, 2 and 3
- Roads with traffic flows greater than 8,000 vehicles per day
- main access routes to A&E, acute, and community hospitals
- main access routes to fire and ambulance stations
- major bus service routes (50 per day urban, 25 per day rural) and depots
- roads passing through major shopping centres
- access roads leading to other hospitals
- main access routes to designated special schools
- Priority 2 routes meeting three or more of the intervention triggers

**Priority 2 – approximately 8% of the County highway network**

The route can be seen at [Gritting routes in Surrey](#) includes:

- Roads with traffic flows greater than 4,000 vehicles per day
- main access route to important industrial areas
- main access route to secondary education establishments
- single access points to villages
- access roads leading to railway stations
- roads used by other bus service routes
- steep hazardous gradients and over bridges where known local icing conditions occur

**Priority 3 – approximately 2% of the County highway network**

The route can be seen at [Gritting routes in Surrey](#) includes:

- main access routes to other education establishments

**Non-Priority**

- all other public highways not covered by the above

**3.10 Time of Treatment For Frost, Ice And Snow**

- **Priority 1**: to be treated, as routine pre-salting, in advance of any forecast frost, ice, or snow.
- **Priority 2**: to be treated only when there is prolonged and persistent frost, ice or snow which is expected to continue, or following snow, but only once Priority 1 routes have been cleared. Outside of snow events, consistent sub-zero road surface temperatures for 5 days or longer are considered to be prolonged and persistent cold weather at which point Priority 2 treatment should be considered.

- **Priority 3**: to be treated following significant snowfall in combination with the Priority 2 routes. But only once the Priority 1 routes have been cleared.

- **Non-priority**: to be treated following significant snowfall but only once Priority 1, 2 and 3 routes have been cleared with priority then being determined by the Snow Event Coordination Team.

- In the event of severe snow condition when tandem ploughing is required (each route will require 2 gritters thus reducing our capacity to clear the network on a single run) or salt shortage the Priority 1 salting network will be restricted to the key “A” plus network only.

3.11 The Service provider must have the ability to mobilise the gritting fleet for precautionary salting within 1 hour of the decision being made day or night. The operational requirement is then to complete the treatment of all pre-defined precautionary salting routes within 3 hours. If an immediate response is required treatment will commence within one hour of the decision being taken. However, for the majority of occasions during the season it is recognised precautionary salting will be undertaken during the evening following the decision being made after the mid-day forecast. The winter service operational plan contains route designations and summary information.

3.12 The performance of the Service Provider in relation to response, treatment times and salt usage will be monitored by the Kier Winter Service Manager and audited by the SCC Asset Planning Team.

3.13 Extent of Carriageway to be salted

- The full width of the running carriageway shall be treated at the specified rate of spread indicated on the agreed action treatment.

- Each carriageway of a dual-carriageway shall be treated individually.

- All slip roads at grade-separated junctions shall be treated individually.

- The full length of the carriageway at roundabouts and gyratory systems shall be treated.

- Treatments will only extend to the Surrey County boundary unless legally binding agreements are in place with neighbouring authorities under Section 8 of the Highways Act 1980.

3.14 At the request of Network Rail during the 2009/10 winter season the Council’s policy is not to pre-salt from 12 metres to the nearest running rail both sides of the crossing. The Constructors may liaise with Network Rail, where known local problems exist, to discuss and agree alternative salting/de-icing arrangements and Network Rail should
be notified of the County’s precautionary salting decisions in order that they may also take appropriate action.

**Footway Treatment**

3.15 Although central government’s Code of Good Practice states that Council’s should consider a service for pedestrians and cyclists, this is discretionary. As a result, most associated winter weather claims can be successfully refuted.

3.16 The discretionary aspect of responsibility for gritting footways allows the Council to focus resources on maintaining the road network as the main priority.

3.17 As such public should be clearly informed that the County will prioritise treating carriageways ahead of footways. Footways will only be cleared of snow or treated prior to snow or during sustained severe cold weather when directed by the Snow Event Coordination Team. This will be completed in the priority order in the footway snow clearance maps. Borough and Districts will assist with this function as detailed in the Appendix E statement of understanding.

3.18 Extent of footway snow clearing:

- **Priority 1** – Main town centres pavements and footways.
- **Priority 2** – Town centre pavements and links to main transport hubs.
- **Priority 3/4** – Shopping parade pavements and footways outside schools.

3.19 Members of the public are unlikely to be held liable, following an incident related to their snow clearance or salt spreading, as long as the condition of the road/footway is no worse than it was before they carried out the work. This information will again be communicated to the public in the winter edition of ‘Surrey Matters’ and on the winter service web site [Gritting routes in Surrey](#).

**Grit Bin Provision and Use**

3.20 Whilst it is recognised that the provision of grit bins is very popular with the public there is no legal duty for Surrey Highways to provide grit bins or maintain them. However, the Council recognises that by encouraging self-help they can further assist local communities, particularly those not on the P1 precautionary salting network and has set out clear guidelines to support their use in Appendix F.

3.21 Grit spread by hand from these bins is a very inefficient use of a valuable and limited resource and the wider use of hand operated machinery is far more efficient and provides value for money. In these circumstances our own contractors, local authorities and residents will be actively encouraged to follow this course of action.

3.22 Due to the demands created by the nature and duration of the weather events, a further mid-season restock may be scheduled following severe weather but no ad hoc filling
will be undertaken. It is noted that, in order to preserve valuable salt stocks and improve performance during snow events particularly, either a mix of salt and grit or grit alone may be provided in bins.

3.23 At present there are approximately 1741 (189 funded) plus 59 Licensed (Parish) and 30 Fire & Rescue grit bins in Surrey, and the Council will have to, without additional resources, continue to prioritise their provision and future replacement based on the previously agreed safety related criteria included at Appendix F. The location of the bins can be found at **Grit bin locations in Surrey**.

3.24 Existing grit bins that do not meet the criteria (score less than 100 points) will remain in place until they come to the end of their serviceable life and then be removed. Local members will be informed in advance and their local committee or community, may choose to fund a replacement. During the winter season if a replacement grit bin is not funded, provided the bin is not causing an environmental or safety issue the bin will retained until the end of the season at which time it will be removed.

3.25 The four-year cost of a grit bin in Surrey is currently £764 irrespective of the source of provision (to be reviewed annually). This cost was reduced in 2017 which reflects a reduction in overall grit bin costs in the past years, this is due to implementation of targeted inspections and filling programme over the past years, as well as warmer winters meaning less bins require filling each year. This cost includes the following elements:

- Initial purchase cost
- Deployment on site, including plant, labour and materials
- Subsequent refill in line with County cycle, including plant, labour and material
- Annual maintenance of the asset and site as necessary
- Asset inventory and management to replace, or not, after 4 years

3.26 Where Local Committees or other stakeholders wish to pay for a grit bin, as a service, at any safe location the full amount should be paid to Highways, in advance as a commuted sum, for the supply, single annual refill and maintenance of the asset over the four year period with the funding accounted for separately and ring fenced in Highway allocations specifically for this purpose.

3.27 At the end of the 4 year management period those grit bins that meet with the assessment criteria (scoring 100 points or more) will be transferred to the core winter service. Local Committees and communities can chose whether or not they wish to extend agreements on grit bins that score less than 100 points. With the grit bin already in place the four-year cost will be £570.

3.28 Licensed grit bins – Parish Councils may, under agreement, place and maintain their own grit bins on the public highway. Any grit bins located on the highway network, will be labelled with details of the owner. Application forms and conditions can be found at: [Parish Council grit bin licence application](#).
3.29 Private grit bins – Private individuals should keep salt bins on their own land. Only Council street furniture can be placed on the publicly maintained highway, the placing of private grit bins on the highway would be akin to an encroachment. Their placement on the highway would also raise a number of issues including who would be able to use the grit bin, the level of service against Council standards (perception that it is a Council grit bin), licensing, liability and ongoing maintenance. Additionally if a private grit bin on the highway caused damage to a person or vehicle, the person suffering damage could pursue the council for not exercising proper control. Any private grit bin will, therefore, be removed from the highway.

**Safety Defect Repairs in the event of severe weather**

3.30 In the event of severe weather, response times for repairs can be affected due to available resources being diverted to snow clearance or other critical tasks. Conditions leading to a backlog in safety defect repairs, including potholes, may, therefore, trigger the introduction of Severe Weather response times for defect repairs.

3.31 The Severe Weather response times referred to below can only be implemented by the Network and Asset Management Group Manager (or nominated deputy):

<table>
<thead>
<tr>
<th>Category</th>
<th>Normal response time</th>
<th>Severe weather response time</th>
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<tr>
<td>Immediate (Priority 1)</td>
<td>2 hours</td>
<td>4 hours</td>
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<tr>
<td>Safety Priority 2</td>
<td>5 working days</td>
<td>7 working days (Permanent repairs within 40 calendar days)</td>
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<tr>
<td>Safety Priority 3</td>
<td>20 working days</td>
<td>40 calendar days</td>
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**Motorways & Trunk Roads**

3.32 The Department for Transport (DfT) is the highway authority for motorways and all-purpose trunk roads in Surrey and the Highways Agency acts for the Department in this respect. Details of contractors responsible for the operational maintenance of motorways and all-purpose trunk roads within Surrey are:

- Area 5 - M25 DBFO-Connect Plus
- Area 3 – Enterprise Mouchel - AccordMP
- Area 4 – Balfour Beatty Mott Macdonald

The Motorway and Trunk Road network can be found at Gritting routes in Surrey. The County Council, therefore, has no responsibility for winter maintenance service activities on these particular roads.
4 MANAGEMENT STRUCTURE & DIVISION OF RESPONSIBILITY

Surrey County Council
Contractor (Kier)
Winter Operations Delivery Team
4.1 In 2016 the new position of Kier Winter Operations Manager was created. This role encompasses the majority of operational responsibilities for the Winter Service. Some decision making responsibilities during a snow event were not appropriate to be given to the Service Provider and are carried out by the SCC Highways Duty Manager.

4.2 The division of responsibilities for the various aspects of the Winter Service are:

<table>
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<th>Network &amp; Asset Management</th>
<th>Kier Winter Operations Manager (Kier)</th>
<th>Service Provider (Kier)</th>
<th>Local Highway Services</th>
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<td>Highways Cold Weather Policy Statement and Plan</td>
<td>Winter Service Operational Plans</td>
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<td>Winter Performance Task Group liaison, Committee and Cabinet Reports</td>
<td>Operation meetings and management</td>
<td>Day to day operations including decision making</td>
<td>Local Committee briefings</td>
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<td>Decision making on when to treat Priority 2 routes in discussion with APT Manager during BAU Plus and Duty Manager and Snow Even Coordination Team during Snow Event</td>
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<td>Setting of Standards and Level of Service through KPI Monitoring</td>
<td>Performance Monitoring KPI Auditing</td>
<td>KPI Reporting</td>
<td>Winter service customer survey</td>
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<td>Salting network review</td>
<td>Audit of routes</td>
<td>Design of routes and driver information pack</td>
<td>Identifying local changes to salting network for inclusion with review</td>
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<td>Specifying spreader and saturator equipment</td>
<td>Checking service providers readiness in respect of: Pre-season preparations and operational resilience: Manning levels (route driver ratio)</td>
<td>Checking District and Borough readiness in respect of: Points of contact Manning levels</td>
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<td><strong>Publicity and communications including web pages through LHS</strong></td>
<td><strong>Day to day external communications including severe weather through LHS</strong></td>
<td><strong>Receipt and dissemination of weather forecasts and updates</strong></td>
<td><strong>Communications &amp; Publications</strong></td>
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<td><strong>Procurement of Road Weather Information System Contract (RWIC) including weather station operation and maintenance services and bureau Service</strong></td>
<td><strong>Management of RWIC contract including support for Ice prediction systems and weather stations and supervision of installations</strong></td>
<td><strong>Procurement and management of forecast service (Meteo Group) and vehicle tracker service (Exctrak)</strong></td>
<td><strong>Management of Twitter and website with latest forecast updates</strong></td>
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| **Procurement of salt supply contract** | **Management of contract and orders**  
Scheduling salt deliveries to third parties | **Salt delivery and stock management**  
Delivery of salt to Districts, Boroughs, Parishes, Farmers and other third parties |  |
<p>| | <strong>Weighbridge maintenance and calibration</strong> | <strong>Recording of stock movement by weighbridge</strong> |  |
| <strong>Procurement of farmers and small contactors snow clearing contract, including designated routes</strong> | <strong>Management of farmers and small contactors, including replacement snow ploughs</strong> | <strong>Maintenance of farmers and small contractors snow ploughs and coordination of snow clearing on strategic network</strong> | <strong>Coordination of farmers during snow event</strong> |</p>
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<td>Use of County Council depots under the contract</td>
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<td>Contingency planning</td>
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5 WEATHER INFORMATION

Weather Information Systems

5.1 Surrey Highways, together with its Kier, use four main sources of information to forecast and monitor the weather and road conditions around the County. These are as follows:

- Weather forecasts from a forecast provider (Meteo Group)
- Thermal mapping (Vaisala IceViewer and IceNet)
- Ice prediction systems (Vaisala IceViewer and IceNet)
- Regional texts (Met Office Open Road)

Weather Forecasts

5.2 Detailed daily weather forecasts and reports specifically dedicated to roads in Surrey will be available during the period 1 October to 30 April each year. The Service Provider has obtained the winter weather forecast through Meteo Group, details of which are contained in their Winter Operations Plan.

5.3 The forecast provides:

**Morning Summary (0730 hrs)**
- Summary of weather condition encountered over the last 24 hours
- Minimum road surface temperatures (RST) encountered at weather stations
- Preliminary forecast for the next 36 hours

**Afternoon Forecast (1300 Hrs)**
- Detailed domain forecast for the next 36 hours
- Site specific road surface forecast temperature graphs
- Two to ten day forecast

**Evening update forecast (1830 hrs)**

Thermal Mapping

5.4 All precautionary salting routes in Surrey have been thermally mapped and this technology is used to identify sections of road that are cooler or warmer than average due to topography, type of construction, traffic flow and other factors affecting road surface temperatures. A road may be described as either 'cold' or 'warm' if thermal mapping shows they are cooler or warmer than average.

5.5 The information yielded from thermal mapping is used in conjunction with site-specific forecasts to predict accurately the minimum temperature of road surfaces across the road network. This allows accurate decisions to be made not only about whether to salt or not, but whether to salt only those roads that require treatment.
Ice Prediction

5.6 Eleven automated road weather stations have been installed around the county. These are equipped with sensors to monitor air and road surface temperature, rainfall, humidity, road surface conditions and give an indication of residual salt on the road surface.

5.7 A number of weather stations are also located in adjoining highway authority areas and on the motorway and trunk road network in Surrey. By working in collaboration with the various parties concerned we can view their sensor information to further assist our own decision-making.

5.8 The Meteo Group, via the Vaisala Bureau at Birmingham, collects information from these sensors at hourly intervals and this assists them in providing more accurate forecasts based on 'real time' information.

Kier Duty Manager (Decision Maker)

5.9 Responsibility to instruct precautionary salting operations rests with the Kier Duty Manager. Detailed arrangements for undertaking this function are included in their annual Winter Operations Plan.

5.10 The Kier Duty Manager is responsible for the following:

- Receiving forecast information from Metro Group
- Monitoring current weather conditions
- Issuing countywide salting instructions for Priority 1 and 2 salting routes
- Forwarding decisions to Communications for further distribution

5.11 The decision making process will be based on the Winter Service Guidance for Local Authority Practitioners 'Recommended Precautionary Treatments and Post Treatments Including Revised Salt Spread Rates', Appendix H, Section H7 (September 2013).

5.12 Appendix H of the Code of Practice includes a pre-wetted target rate of 21g/m² within the H7 guidance table. All gritting routes are currently designed on 20g/m² which allows for two 20g/m² treatments in advance of snow. The variation between the two spread rates is within 80% of the guidance target. The 20g/m² will remain the maximum spread rate when making decisions until such time that the routes are re-optimised.

5.13 The Surrey Gritting Update will be issued daily by the Communications Officer containing information about expected weather conditions together with any salting instructions. The Kier Duty Manager will be responsible for issuing forecast updates and any revised salting instructions to Communications. The Surrey Gritting Update will be sent to members, Boroughs and District Councils, neighbouring authorities and the Highways Agency contractors.
6 SALTING

6.1 Precautionary Salting

Precautionary salting will take place on the Priority 1 salting network on a pre-planned basis to help prevent the formation of ice, frost and/or the accumulations of snow on the carriageway surface.

Precautionary salting will only be considered on the Priority 2 salting network when there is prolonged and persistent frost, ice or snow which is expected to continue. Advance treatment of the Priority 2 salting network will also be considered in advance of snow, as resources allow once the Priority 1 roads are treated. Outside of snow events, consistent sub-zero road surface temperatures for 5 days or longer are considered to be prolonged and persistent cold weather at which point Priority 2 treatment should be considered.

6.2 Post Salting

Post salting will normally take place on the Priority 1 salting network to treat frost, ice and snow that has already formed on the carriageway or footway surfaces. Post salting may also be carried out on roads or sections of roads beyond the scheduled Priority 1 salting network.

6.3 Spot Salting

Spot Salting is a non-routine activity carried out after the completion of the Priority 1 salting when, during periods of adverse weather, parts of the Priority 1 network may remain at risk due to the formation of ice/snow. In these instances there may be a need to undertake post treatment of these sections by spot salting. Under normal (non-snow event) operation requests for spot salting are received and managed by the Kier Winter Operations Manager and reported to Asset Planning Team Manager. Under Local Control during severe weather, spot salting requests should be approved by the Snow Event Coordination Team.

Spot salting will not be undertaken on the network when it is unlikely to be completed before the ice begins to melt, or road temperatures are expected to rise. Spot salting can be undertaken either by mechanical spreader or by hand.

Additionally, whilst the main priority is to keep the Priority 1 network open and free flowing, in some instances it may be necessary to close roads and in these cases the diversion route should also be treated to the same standard as the remainder of the Priority 1 network.
7 SNOW CLEARANCE

Snow Condition Action Plan

The Snow Condition Action Plan forms part of both the Severe Weather and Winter Operations Plan. The following is a summary of the key functions:

- Establishment of a Snow Event Co-ordination Team, Chaired by The SCC Duty Manager and including Kier and SCC officers. The Team provides clear management of the organisational arrangements and coordination of resources in response to severe weather conditions
- Identifies triggers for mobilising resources such as weather conditions, resources, location
- Identifies network hierarchy to keep clear, parameters and time scales
- Contacts for all resources to place on readiness once a ‘severe weather warning’ has been received
- Mobilising resources immediately the ‘action levels have been met’

Emergency Procedure/Snow Desk/Local Control

7.1 When the potential for widespread and persistent ice and/or snow is forecast that is likely to result in action other than just P1 precautionary salting initiated by the service providers, the Kier Winter Operations Manager will proactively engage with the SCC Highways Duty Manager.

7.2 When a ‘Snow Event’ is declared by the SCC Duty Manager and Kier Operations Manager, it is declared from a particular date and time and all decision making and associated resource management for winter activities will pass to the Snow Event Coordination Team until an agreed date and time when the ‘Snow Event’ will cease and decision making passes back to Kier for P1 precautionary salting.

In advance of and during a ‘Snow Event’ daily joint meetings of the Snow Event Coordination Team will take place to pre-plan and provide feedback on operations and priorities to the Strategic Network Resilience Manager and Emergency Planning Team. Such meetings may be virtual or require personal attendance subject to circumstances.

7.3 In the event of snow accumulations the Snow Action Plan will be activated and ‘Local Control’ declared. The Snow Event Coordination Team will be expanded to include Area Manager (SE), Principal Highway Maintenance Engineer (SE), or their representatives, who will meet twice daily to review conditions and the response. To ensure they are inclusive such meeting may be conducted by conference call.
7.4 During a ‘Snow Event’ Kier will continue to publish decision sheets and the SCC Works Communication Team representatives will provide and communicate morning and evening updates of activities undertaken.

7.5 In the event of snow, carriageways will be treated and cleared commencing with the Priority 1 precautionary salting routes. Dependent on conditions it may be necessary to restrict the initial operation to the “A” Road plus network. Other routes will be cleared when resources permit and consideration may be given to treating strategic highway areas, including footways in town centres, shopping precincts and areas leading to hospitals and schools etc. with assistance from Borough, Districts, Town and Parish Councils.

7.6 Each farmer has a nominated route that they will begin ploughing in the event of snow without instruction. Management of farmers undertaking ploughing and salting will be the sole responsibility of the Snow Event Coordination Team with each district being coordinated through the Maintenance Engineers (LHS) or by direct contact from the Snow Desk.

7.7 The Highway Duty Manager or representative will represent Highways & Transport Services on any group(s) established by the Emergency Management Team.

7.8 Responsibility for carrying out spot salting and emergency response remains with Kier using their routine emergency response crews. Any use of the frontline gritters in these circumstances will be strictly by agreement with the Snow Event Coordination Team, and only under exceptional circumstances, such as a medical emergency.

**Control Hub (Snow Desk) Operational Procedure**

7.9 Depending upon the nature of the incident, the following maps will be available as required in the control hub, which will be used as described elsewhere in this section:

- Road Condition Map: Identifying the latest situation throughout the area, with further information added as actions are taken;
- Pre-Salting/Plough Routes: Indicating Priority 1, 2 and 3 salting/ploughing routes, for information;
- Footway and Pavement priority schedules.
- Farmer's Plough Routes: Indicating agreed farmers ploughing routes, for information.
- Contacts, schedules, maps and plans are available for internal Surrey CC and Kier staff on the Integrated Management System (IMS).

**Resources of the Control Hub (Snow Desk)**

7.10 Kier’s Control Hub will become the Snow Desk which will be jointly manned by the SCC Highways Duty Manager, with additional support provided by Local Highway Service and Network and Asset Management Groups. The table below sets out roles and responsibilities of those involved in coordinating the response.

<table>
<thead>
<tr>
<th>Role</th>
<th>Lead Officer</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Planning</td>
<td>Highway Duty Manager</td>
<td>Acting as the key contact point with the Council’s Emergency Management Team</td>
</tr>
<tr>
<td></td>
<td>(Supported by Strategic Network Resilience Manager (NAM))</td>
<td></td>
</tr>
<tr>
<td>Controller</td>
<td>SCC Highways Duty Manager or designated deputy.</td>
<td>Overseeing joint setting up of the Snow Desk and actions taken. Chairing Snow Coordination Team meetings, liaison with communications, LHS and NAM</td>
</tr>
<tr>
<td>Condition Co-ordinator</td>
<td>Nominated Kier staff within the Hub</td>
<td>Co-ordination of incoming data, maintaining road condition maps. Liaising with Resource Co-ordinator on actions required.</td>
</tr>
<tr>
<td>Resource Co-ordinator</td>
<td>Kier Winter Operations Manager</td>
<td>Joint setting up and general organisation of Snow Desk. Agreement of action with Condition Co-ordinator, co-ordination of resources and recording actions</td>
</tr>
<tr>
<td>Local Highway Services Coordinator</td>
<td>SCC SE Area Highways Manager or designated deputy</td>
<td>LHS Snow desk liaison representative, co-ordinate LHS response.</td>
</tr>
<tr>
<td>District and Borough Co-ordination</td>
<td>Maintenance Engineer (LHS)</td>
<td>Co-ordinate with District and Borough’s on footway clearance and update and Area Highway Manager (SE) or designated deputy on condition.</td>
</tr>
<tr>
<td>Farmers Co-ordination</td>
<td>SCC SE Area Highway Manager</td>
<td>Co-ordinate Farmers on P1 salting network with main snow clearing operation</td>
</tr>
</tbody>
</table>
The following resources may be involved in responding to a snow event:

- Service Provider (Kier)
- Districts and Boroughs
- Parishes
- Third Parties (Farmers/Contractors)

Further details on the activities each of the resources will undertake are described below.

**Service Provider (Kier)**

7.11 The vehicles and plant required by snow clearance will be no different to their normal requirements. In exceptional circumstances Kier may provide additional special snow clearance plant, this may entail special payments to snow clearance contractors.

7.12 The normal snow clearance equipment will be open back lorries and vans, JCB’s and personnel with brooms and shovels, together with hand operated spreading equipment.

7.13 Snow clearance and other winter service activities will be carried out on a priority basis as directed by the Controller or his/her representative.

7.14 Snow clearance sub-contractors will be directed to draw salt and grit from depots as appropriate by Kier using the installed weighbridges for record and audit purposes.

**Co-ordination of Resources**

7.15 Districts and Boroughs
To assist with footway clearance works, negotiations have taken place with the Borough and District Councils to agree a Statement of Understanding whereby they will give priority to gritting/snow clearance when their crews are unable to undertake their primary functions. They will clear agreed priority footways dependent on the availability of grit/salt and manpower.

To assist with the operation each District & Borough has been provided with hand spreaders and up to 40t of salt depending on commitment but the overall responsibility remains with Surrey, as the highway authority. This includes insurance liability, other than for negligence on the part of operatives whilst working or arising from road traffic accidents involving fleet vehicles whilst on duty.

Summary of the Statement of Understanding are included in Appendix D.

As discussions continue with Borough, District, Town and Parish Councils in relation to the provision of additional resources for snow and ice clearance during a weather emergency, the Maintenance Engineer, or designated representatives, will be responsible for liaising with these authorities to assess/record their actions and coordinate any assistance they may be able to provide.

7.16 Parishes

Through local working arrangements, representatives of a number of Parishes and Chambers of Commerce now operate mechanical hand spreaders to clear pavements in towns and villages in their area. Salt is provided from the overall Borough and District allocation.

During a snow event a number of steep hills across the county may become impassable. In Tatsfield the Parish Council, will, by agreement, erect information boards advising drivers that certain roads are impassable.

7.17 Third Parties (Farmers/Contractors)

In some rural areas it may be appropriate to lodge snowplough attachments with farmers equipped with suitable machinery or otherwise hire their equipment and services in extreme events so that they can operate on the public highway with the authority of the Asset Planning Team. Each farmer and third party contractor will report their activities to Asset Planning Team who will arrange payment. They will then be reimbursed at agreed rates.

Local farmers and plant operators who are under agreement to Surrey Highways, will carry out snow clearance on certain minor route carriageways using either ploughs provided by the Council, agricultural snow ploughs and snow throwers/blowers as directed by the Snow Event Coordination Team. Snow clearance will be carried out on routes pre-agreed with SCC, following which further roads will be treated in liaison with the Maintenance Engineers.
Snow ploughing will commence as soon as 50 mm (2 inches) of snow has fallen on the specified route, providing snow is persisting unless otherwise directed by the Snow Event Coordination Team. Each farmer has a designated route and may work as a team with Kier ploughs, or others, and report daily on progress.

A number of farmers have salt spreading capacity and provision has been made for a pre-season delivery of approximately 5t of salt to each farmer providing the service.

Each farmer has been provided with a set of signs to advise motorist that roads are being ploughed and to take an alternative route.

Snow clearance on other minor routes will be carried out as resources permit. Some minor routes and cul-de-sacs will inevitably have to be left to thaw naturally.

7.18 Members of the public and Liability

Members of the public are unlikely to be held liable, following an incident related to their snow clearance or salt spreading, as long as the condition of the road/footway is no worse than it was before they carried out the work. This information will again be communicated to the public in the winter addition of ‘Surrey Matters’ and on the winter service web site providing a clear legal position:

“As with all actions taken by members of the public, people should act sensibly and consider the effect their actions might have on other highway users. Provided any salting or snow clearance is carried out responsibly and without creating further hazards which could lead to a passer-by injuring themselves, then there would be no liability for such actions.”

8 VEHICLES & INFRASTRUCTURE

Vehicles

8.1 A mixed fleet of 37 front line gritters will be deployed on the network with 1 spare in each of the depots, all managed and maintained by Kier on a 24/7 basis, inclusive of call-out cover. Vehicle details and locations are included in the Winter Service Operations Plan:

<table>
<thead>
<tr>
<th>Vehicles</th>
<th>Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>6m³ Pre wet spreaders with DIN plates</td>
<td>32</td>
</tr>
<tr>
<td>9m³ Pre wet spreader with DIN plates</td>
<td>5</td>
</tr>
<tr>
<td>3.5t Dry spreader</td>
<td>1</td>
</tr>
<tr>
<td>Snow Ploughs</td>
<td>37</td>
</tr>
<tr>
<td>Salt Spreader</td>
<td>15 (Kier) + 50 (B,D&amp;P)</td>
</tr>
<tr>
<td>Depot loading shovels</td>
<td>4</td>
</tr>
<tr>
<td>SCC ploughs with farmers</td>
<td>31</td>
</tr>
</tbody>
</table>
8.2 All front line vehicles are fitted with GPS tracking facilities. The records from each gritting run are to be collated with the salting return sheets and stored on the IMS for retention and future audit by SCC as necessary.

8.3 The County normally expects spreading vehicles to be single manned but during severe weather, snow clearing or when dense fog persists, two-man operation may be required.

8.4 All spreaders and ploughs will be available for use during the entire winter service season. The calibration and service of all plant and equipment will be completed prior to the start date of the winter season.

8.5 After each period of use and at least once every 24 hours, whether in constant use or not, each vehicle and associated piece of equipment will be thoroughly washed to remove any trace of salt or brine.

**Saturator Contingency Planning**

8.6 The County is committed to a completely pre-wet precautionary salting operation. There are four brine producing saturators located at the Bagshot, Godstone, Merrow and Witley depots.

8.7 As with all mechanical equipment, the units are subject to operational wear and failure of component parts. Operation, maintenance and repairs will be undertaken during the season by Kier.

8.8 It is noted that approximately 70% of the brine tank capacity on the spreaders is used to complete the routes. In order to provide greater operational resilience in all vehicles brine tanks are to be fully replenished by the Service Provider at the conclusion of a spreading run so the tanks have sufficient reserve. In these circumstances additional time is allowed to deal with any power failure or saturator plant breakdown without any immediate, direct operational effect.

8.9 Brine is not corrosive to the polypropylene material used for the spreader tanks so prolonged storage is not a problem and the majority of plant malfunctions should be repaired on a permanent or temporary basis within 48 hours.

**9 SALT**

9.1 For the 2018-19 winter season Surrey hold a pre-season total of approximately 12,600t. This is in excess of the stock resilience level recommended by David Quarmby in his 2010 report - enough salt to treat 4 times a day for 12 consecutive days. Through Compass Minerals stock control monitoring system deliveries are automatically
released as stocks are used. By maintaining stock levels the impact of any national shortage will be reduced.

9.2 The following table summarises salt stocks and their distribution across highway depots:

<table>
<thead>
<tr>
<th>DEPOT</th>
<th>No. P1 ROUTES</th>
<th>SATURATOR CAPACITY (litres)</th>
<th>SALT STOCK (Tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merrow</td>
<td>13</td>
<td>12,000</td>
<td>4,300</td>
</tr>
<tr>
<td>Godstone</td>
<td>11</td>
<td>12,000</td>
<td>3,500</td>
</tr>
<tr>
<td>Bagshot</td>
<td>6</td>
<td>12,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Witley</td>
<td>5</td>
<td>12,000</td>
<td>1,800</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>48,000</td>
<td>12,600</td>
</tr>
</tbody>
</table>

9.3 Salt stocks will be maintained at the maximum level that storage permits through the peak season until mid-February when stocks will be allowed to run down to a minimum of 8,000t (equivalent of 8 days of continuous salting), to enable stock rotation, prior to receipt of new supplies.

9.4 However, it is recognised that national demands may result in no further significant deliveries being received by highway authorities and ‘Salt Cell’ operation could be implemented by the Government. The ‘Salt Cell’ formulae has previously disadvantaged Surrey as a council which conserves salt stocks while rewarding other authorities who do not conserve or who may operate less efficiently. Orders can be sourced from abroad but this is more expensive and not the preferred option.

**Salting Methods**

9.5 The primary precautionary salting operation is undertaken through the application of “pre-wet” salt. This process uses a brine solution comprising 30% salt and 70% water that is pre-mixed in purpose built brine ‘saturators’. The brine solution is then stored in tanks on the spreading vehicles and mixed with dry salt on the spreader plate at a ratio of 30% brine and 70% salt.

9.6 The advantage of this treatment method, with its partial dilution at the point of application, is the immediate de-icing action that takes place on contact with the road surface. There are also significant environmental benefits as the salt solution adheres to the road surface and doesn’t tend to ‘bounce’ during the spreading operation so having less effect on adjacent verges and buildings and also passing vehicles.

9.7 Surrey will again use 6mm salt during the 2018/19 winter season in its 33 frontline, pre-wet spreaders, each dedicated to a pre-defined precautionary salting route.

**Residual Grit and Sand**
9.8 During severe winter weather events large quantities of grit and sand may be spread on the network to comply with the County’s duty to maintain the highway in a safe condition. Once these materials have served their purpose they could be considered to be litter under the terms of the Environmental Protection Act, particularly where they remain in sufficient quantities. However, spreading grit is considered to be a legitimate and reasonable duty of the Highway Authority and, therefore, not actionable under the terms of the legislation. It is thus the responsibility of the relevant District Council to clear these materials as part of their street cleansing duties. However, there will be circumstances where residual grit and sand cause potentially hazardous conditions, for example:

- On slopes to footways with high pedestrian use
- When significant local spillages have occurred during spreading

These excessive amounts of material should be removed as part of the Highway Winter Service function.

10 BUDGETS

10.1 A budget of £2.436m has been allocated for the 18/19 winter service provision

11 PUBLIC AND MEDIA COMMUNICATIONS

11.1 Effective communications and news media management, particularly local radio stations, is of the utmost importance.

11.2 Additional information will also be provided, including to members as appropriate, especially during periods of snow clearance to ensure that the travelling public are informed of current road conditions and affected or cleared routes.

11.3 From 2017 onwards a separate Cold Weather Information Pack will no longer be provided in addition to this Cold Weather Plan. Any information previously provided in the Information Pack is provided within this plan, or its appendices. The exception to this is information about farmers and contractors which will be provided separately to Members

11.4 The County Council’s Communications and Media Teams will act as the focal point for Winter Service briefings and media communications.
12 ANNUAL WINTER SERVICE POST-SEASON REVIEW

12.1 Each review will look at the delivery of continuous improvement during the previous winter season and update members on performance with recommendations for further improvement and ongoing scrutiny.

12.2 The review will include consultations with stakeholders. The proposed engagement timetable is as follows:-:

12.3 During May the Asset Planning Team and Kier Winter Operations Manager will review the previous season’s activities. The de-brief will follow the structure below:

- Discuss feedback from Local Committees and stakeholders
- Discuss things that went well
- Discuss things that went not so well
- Discuss things we would do differently next time
- Discuss what the Partnership could do differently next time.
- Changes to the network and implementation
- Review of latest national guidance and industry innovations

12.4 The review will ensure that the service is efficient, delivers value for money and is environmentally sustainable. The review will challenge current practices and draw on innovations in materials and equipment to ensure continuous improvement to the Service.

Development of salting network

12.5 It is recognised that changes in the use of the network will continue and evolve over time which in turn will impact on the roads that we treat e.g. bus service amendments and the adoption of new roads etc. Where these occur the priority salting network will be updated to reflect the changes.

12.6 Other influence can come from local communities who want to swap one road for another. Provided this does not impact on the strategic network and has been mutually agreed locally (Local Committee) the swapping of roads can be implemented on a “like for like” bases in keeping with the localism agenda.

Monitoring and evaluating the service

12.7 The Asset Planning Team together with the Kier Winter Operations Manager, will review the Winter Service performance and report the percentage of Priority treatment routes completed on time to the Core Management Team. Other reports that will be completed to demonstrate a successful Winter Service are:

- Production of Snow Conditions Action Plan
- Accuracy of weather forecast by Met Office
- Completion of actions within treatment times and unplanned call outs
- De-icing material stock
- Third Party claims, accuracy, and compliments
- Vehicle and plant availability.

12.8 These reports will be used to evaluate performance and feed into the annual winter service report.
Appendix A – Service Provider’s Winter Operations Plan

The Service Provider’s Winter Operations Plan forms part of the Winter Service Plan and is contained in a separate internal document.

1. Introduction
2. Purpose and scope
3. Aims and objectives of plan
4. Weather prediction and monitoring
5. Decision Making
6. Communication to operational staff
7. Management Structure
8. Operational resource
9. Depot and salt
10. Additional salt provision
11. Routes
12. Vehicles and Plant
13. Facility Details and Welfare
14. Occupational health and safety
15. Post incident review – lessons learnt
16. Winter Operations Plan review
17. Document control
18. Appendices
   - Appendix 1 – Winter Driver Rota
   - Appendix 2 – Decision making process
   - Appendix 3 – Operational and structural organogram
   - Appendix 4 – Winter vehicle fleet list
   - Appendix 5 – Vehicle calibration certificates
Appendix B - Precautionary Salting Process Map

**DECISION MAKING**

- Duty Winter Maintenance Manager collates weather and forecast data – Meteo Group
  - Marginal Conditions
    - Action Required?
      - NO
        - Freezing Conditions expected in isolated areas?
          - NO
            - FREEZING CONDITIONS expected across whole area?
              - NO
                - Duty Manager informs standby supervisors/operatives
              - YES
                - Post AMBER status on readiness boards at depots and disseminate information
                - Await evening update
                - Decision communicated and agreed with forecast provider
                - Duty Manager determines actions, timings, etc and forwards decision to contact list
                - DUTY MANAGER cascades decision to depots
          - YES
            - Post RED status on readiness boards at depots and disseminate information
            - Identified locations/routes affected
            - Duty Manager informs standby supervisors/operatives
            - DUTY MANAGER informs standby supervisors/operatives
    - YES
      - Post GREEN status on readiness boards at depots and disseminate information

**INFORMATION DISSEMINATION**

- Duty Manager informs standby supervisors/operatives
  - During Working Hours?
    - YES
      - Duty Manager determines actions, timings, etc and forwards decision to contact list
      - DUTY MANAGER cascades decision to depots
    - NO
      - No Action
      - DUTY MANAGER informs standby supervisors/operatives

**TREATMENT**

- Treat Roads
Appendix D – District and Borough Footway Agreement Summary

To assist in the snow clearing operation the County has entered into a Statement of Understanding with each of the Districts and Boroughs, all parties are agreeing to:

- Openly share information and best practice with each other
- Seek to maximise efficiencies and benefits and to get the best deal for local people within the budgets available

District and Borough Winter functions

We have agreed footway snow clearing routes that will be given priority for gritting/snow clearance when the District and Borough Council crews are unable to undertake their normal primary functions. The extent of clearance on these footways will be dependent on the availability of grit/salt and manpower.

Overall responsibility remains with Surrey as the Highway Authority. This includes insurance liability, other than for negligence on the part of operatives whilst working or arising from road traffic accidents involving fleet vehicles whilst on duty.

Resources

Each District and Borough Council has indicated the level of resources that would be available during a winter event and these resources should be sufficient to carry out at least the top priority routes listed. A number of priority routes have been split between the Districts and Boroughs and Surrey CC.

It is understood that these resources may vary depending on the scale and severity of an event. If waste services are suspended the cleansing operatives would be available to help with hand salting and clearing snow.

The response will be coordinated through the District or Borough representative and the Maintenance Engineer for each area.

To assist with the operation each District and Borough has been provided with hand spreaders and an option to be supplied with 40t of salt. This salt is in addition to, and does not replace the individual salt stock of the District or Borough and will, therefore, be used primarily for gritting the highway and/or priority footways.

As discussions continue with Borough, District, Town and Parish Councils in relation to the provision of additional resources for snow and ice clearance during a weather emergency, the Maintenance Engineer, or designated representatives, will be responsible for liaising with these authorities to assess/record their actions and coordinate any assistance they may be able to provide.

In some instances the responsibility for the initial response has been shared. This means that some locations will be treated by SCC and others by the District or Borough Council. An outline summary of the District and Borough response is scheduled below, for more details refer to the IMS (internal use only) for schedules and maps or the following link: Pavement and footway snow clearing routes:
1. **Elmbridge BC**
Elmbridge Borough Council provide resources to clear snow and grit from the majority of Priority 1 and 2 footway snow clearing routes. Surrey CC provide additional resources to clear snow and grit the remaining Priority 1 and 2 and all Priority 3 footway snow clearing routes.

2. **Epsom and Ewell BC**
Epsom and Ewell Borough Council provide resources to clear snow and grit from Priority 1 and 2 footway snow clearing routes. The Priority 3 footway snow clearing routes are split between Epsom and Ewell and the County.

3. **Guildford BC**
Guildford Borough Council provides resources to clear snow and grit from Priority 1 footway snow clearing routes in Guildford Town Centre. Surrey CC provides resources for all other Priority 1, 2, 3 and 4 snow clearing routes in the Guildford BC area.

4. **Mole Valley DC**
Mole Valley District Council provide resources to clear snow and grit from Priority 1 and 2 footway snow clearing routes in Dorking Town Centre, Betchworth, Brockham, Capel, Charlwood and Newdigate Parishes also have local arrangements to clear snow and grit from footways in partnership with SCC. Surrey CC provide resources to clear snow and grit from Priority 1 and 2 footway snow clearing routes in Leatherhead, Ashtead Fetcham and Bookham and all Priority 3 and 4 snow clearing routes.

5. **Reigate and Banstead BC**
Reigate and Banstead Borough Council provide resources to clear snow and grit from Priority 1 footway snow clearing routes. The priority 2 footway snow clearing routes are split between Reigate and Banstead and County. The County provide resources for Priority 3 and 4 footway snow clearing routes.

6. **Runnymede BC**
Runnymede Borough Council provide resources to clear snow and grit from Priority 1 and 2 footway snow clearing routes. The Priority 3 and 4 footway snow clearing routes are split between Runnymede and the County.

7. **Spelthorne BC**
Spelthorne Borough Council provide resources to clear snow and grit from Priority 1 and 2 footway snow clearing routes. The Priority 3 footway snow clearing routes are split between Spelthorne and the County.

8. **Surrey Heath BC**
Surrey Heath Borough Council provide resources to clear snow and grit from Priority 1, 2 and 3 footway snow clearing routes for Camberley and Frimley. The County will provide resources for other Priority 2 and all Priority 3 footway snow clearing routes. Parishes also have local arrangements to clear snow and grit from footways in partnership with the County in Bagshot, Lightwater and Windlesham.

9. **Tandridge DC**
Tandridge District Council coordinates snow clearing in partnership with Parish Councils and Chambers of Commerce across the district to clear snow and grit from Priority 1, 2, 3 and 4 footway snow clearing routes. Priority 3 snow clearing routes in Whyteleafe and Oxted will be split between Tandridge and County.
10. **Waverley BC**
Waverley Borough Council has limited resource and will initially concentrate their snow clearing and gritting operations at their own car parks and amenity areas, including access points. In Haslemere, localised clearing and gritting assistance is also provided by the Parish and Chamber of Commerce. County will provide resources to clear and grit from Priority 1, 2 and 3 footway snow clearing routes.

11. **Woking BC**
Woking Borough Council provide resources to clear snow and grit from Priority 1 and 2 footway snow clearing routes in Woking Town Centre. County will provide resources for all other Priority 1 and 2 and all priority 3 footway snow clearing routes within the Woking BC area.

**Summary Table of Responsibility for Priority Footway Snow Clearing Routes.**
(Schedules showing details of each district can be found by following the link to the Surrey CC website above).

<table>
<thead>
<tr>
<th>District</th>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
<th>Priority 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elmbridge</td>
<td>Shared</td>
<td>Shared</td>
<td>SCC</td>
<td>N/a</td>
</tr>
<tr>
<td>Epsom &amp; Ewell</td>
<td>E &amp; E</td>
<td>E &amp; E</td>
<td>SCC</td>
<td>N/a</td>
</tr>
<tr>
<td>Guildford</td>
<td>Shared</td>
<td>SCC</td>
<td>SCC</td>
<td>SCC</td>
</tr>
<tr>
<td>Mole Valley</td>
<td>Shared</td>
<td>Shared</td>
<td>SCC</td>
<td>SCC</td>
</tr>
<tr>
<td>Reigate &amp; Banstead</td>
<td>R &amp; B</td>
<td>Shared</td>
<td>Shared</td>
<td>Shared</td>
</tr>
<tr>
<td>Runnymede</td>
<td>Runnymede</td>
<td>Runnymede</td>
<td>Shared</td>
<td>Shared</td>
</tr>
<tr>
<td>Spelthorne</td>
<td>Spelthorne</td>
<td>Spelthorne</td>
<td>Shared</td>
<td>N/a</td>
</tr>
<tr>
<td>Surrey Heath</td>
<td>Surrey Heath</td>
<td>Shared</td>
<td>Shared/Parish partnership</td>
<td>N/a</td>
</tr>
<tr>
<td>Tandridge</td>
<td>Tandridge/Parish partnership</td>
<td>Tandridge/Parish partnership</td>
<td>Shared</td>
<td>N/a</td>
</tr>
<tr>
<td>Waverley</td>
<td>SCC</td>
<td>SCC</td>
<td>SCC</td>
<td>N/a</td>
</tr>
<tr>
<td>Woking</td>
<td>Shared</td>
<td>Shared</td>
<td>Shared</td>
<td>N/a</td>
</tr>
</tbody>
</table>
Appendix E – Criteria for the provision of Grit Bins

1. The Council has provided grit bins at certain adopted highway locations that are not included on the Priority 1 precautionary routes already treated as an aid to road safety.

2. Grit bins are placed in consultation with Area Highway Team Managers where they can be positioned safely, near the highway, to provide for spot treatments at:
   - Difficult road junctions
   - Slopes
   - Acute bends
   - Concentration of pedestrian and commuter use
   - To assist with service for those in isolated rural communities off the primary and secondary precautionary treated routes

Criteria

3. Grit bins are assessed against a score to ensure those provided meet the criteria of servicing the highest priorities within the scope of budget constraints

4. The score allocated must reach a minimum of 100 points for a location to qualify, but priority within limited resources will go to those locations with the highest scores. The decision of the SCC Asset Strategy & Programme Team Leader will be final in deciding on the provision of grit bins.

5. Difficult junctions

   Grit bins may be positioned to provide spot treatments at junctions where side road traffic joins high volume flows at peak times and snow or ice make the junction particularly difficult to negotiate safely.

6. Slopes

   All slopes are potentially hazardous when snow or ice is present. Drivers are accordingly expected to exercise due caution in extreme winter conditions. Grit bins may be considered at locations where the presence of snow or ice on steep inclines makes it almost impossible for drivers to control their vehicles.

7. Bends

   All bends are potentially hazardous in snow and ice conditions and drivers are accordingly expected to exercise due caution in extreme winter conditions. Grit bins may be considered at locations where an acute bend exists combined with a slope that make it almost impossible for drivers to control their vehicles.

8. Pedestrian locations

   The focus of providing grit bins will be at pedestrian locations subject to commuter use. These will include locations where steps, or ramps, exist particularly at subways or footbridges. For convenience bins are placed at each access point, as far as possible to ease salt distribution at these locations.

9. Salt Storage
Salt is stored in waterproof containers to protect the salt from weathering and to help avoid contamination wherever bins may be affected by seepage. Salt is normally stored in yellow bins for ease of location during servicing operations. In sensitive areas, green bins may be supplied as an alternative to standard yellow as they may appear less obtrusive.

In order to conserve the environment, salt must not be stored on the highway where it could damage trees or areas of conservation verge, or where the salt might dissolve and enter an adjacent water course. In order to safeguard trees a grit bin should not be placed within a radius equal to 12 times the trunk diameter or 4 times the circumference.
# Highway Grit Bin Assessment Form

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Severity</th>
<th>Points weighting</th>
<th>Points allocated</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vehicular Movement</strong></td>
<td></td>
<td></td>
<td></td>
<td>Void location rejects application.</td>
</tr>
<tr>
<td>Is site on Priority One precautionary treatment route</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td></td>
<td>Continue assessment</td>
<td></td>
</tr>
<tr>
<td>Is treatment area off priority one routes on which bin will be safely located</td>
<td>Yes</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Surface gradient</td>
<td>1:10 or over</td>
<td>75</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Less than 1:10</td>
<td>Nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difficult junction requiring precise timing to exit, or Within 25m of and falling towards junction with: -</td>
<td>(Exit traffic at peak times)</td>
<td>Moderate Traffic</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderate Traffic</td>
<td>Light traffic</td>
<td>Nil</td>
<td></td>
</tr>
<tr>
<td>Bends on slope location with moderate traffic</td>
<td>Yes</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>Nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Traffic density at peak times</td>
<td>Moderate Traffic</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Light traffic</td>
<td>Nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Pedestrian Movement</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration of use by pedestrian’s steps, ramps, footbridge, subway. (Category 1 &amp; 2 Footways)</td>
<td>Yes</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>Nil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bin condition damaged yes / no</td>
<td></td>
<td></td>
<td>TOTAL POINTS</td>
<td></td>
</tr>
<tr>
<td>Locality density</td>
<td></td>
<td></td>
<td>Retain/Remove</td>
<td></td>
</tr>
</tbody>
</table>
Appendix F

Surrey Winter Online Map

The Priority Salting Routes and Grit Bins can both be found on the Surrey Winter Online Map by clicking the links on the following pages:

- **Salting Routes**

- **Grit Bins**

1. From those pages click on the link to the Interactive map

2. Accept terms and conditions by checking the box at the bottom left as shown below:

   ![Surrey Winter Online Map](image)
3. Turn on the salting route or bin layer by ticking the box in the layer list.

4. For information about the symbology click the arrow to the left of the layer name (shown in the red circle below) to expand the information.