



Winter Service Policy 2026 to 2028



Table of Contents

Document History	3
Executive Summary	4
Introduction	6
1. Objectives and Limitations	6
2. Safety, Serviceability and Sustainability	7
3. Legislation and Guidance	8
4. Winter Season	10
5. Winter Standby Period	11
6. Carriageway Treatments	12
7. Footway Treatments	17
8. Cycleway Priorities and Treatments	19
9. Treatment for Snow Conditions	20
10. Response and Treatment Times	28
11. Weather Forecasting, Decision Making and Support Systems	28
12. Vehicles and Plant	34
13. Training	35
14. De-Icing Materials	36
15. Spread rates and treatment routes	39
16. Salt bins and heaps	40
17. Salt Reciprocal arrangements and Works for outside bodies / other departments.	42
18. Publicity and Public Contact points	43
19. Service Resilience	44
20. Extreme Conditions	46
21. Record Keeping	47
22. Operational Management	47
APPENDIX A1 - Circulation List	48
APPENDIX A2 - Glossary of Terms	49
APPENDIX A3 - Treatment Alignments	53

Document History

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Description	Describes the Council's approach to its Winter Service upon the Highway Network.
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Approved: Name and Signature	Approved at Cabinet - Cabinet Minute item 55.
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Document Revision Summary

Minor amendments to the documentation to align with current legislation and Council Policies.

Executive Summary

Redcar and Cleveland Borough Council as part of their Winter Service operation, carry out precautionary and post salting treatments, along with snow clearance activities, in accordance with this policy upon the public highway across the Borough.

Carriageway treatments will take place based on the forecast and prevailing weather conditions, as necessary.

There are three principal winter operations:

- Pre-treatment - 'precautionary salting' to prevent ice forming.
- Post-Treatment - to melt ice and snow that has already formed.
- Snow clearing - to remove significant accumulations of snow using snow ploughs etc.

Footways and Cycle tracks will not normally receive any precautionary treatment but will be attended to in some frost conditions when resources are available.

The operational depots are located at Grangetown and Boulby. Salt for winter gritting is stocked at Boulby Mine and Middlesborough Councils' Cargo Fleet depot.

Salt bins are provided at approved locations to help communities assist themselves, with details provided in the operational supporting documentation.

All activities and operations will be undertaken with reference to National, and Best Practice guidance.

This policy will be subject to review every 2 years with consideration to any feedback or changes to legislation on an annual basis.

Trunk Roads and Motorways within the authority's boundary that are managed by National Highways are.

- The A174 Parkway from the Redcar and Cleveland Borough Council (RCBC) / Middlesbrough Borough Council (MBC) boundary to the A1053 Greystones Roundabout.
- The A1053 Greystones Roundabout to A1053 Westgate Roundabout.

Introduction

This Winter Service Policy sets out the objectives and standards for the delivery of Highway Winter Services within the Borough of Redcar and Cleveland and supports the authorities Infrastructure Asset Management Plan.

Delivery of the service in line with this document is supported by Redcar and Cleveland - Winter Service Operational and Supporting Documents.

1. Objectives and Limitations

1.1 Objectives

To provide a winter service, which, as far as is reasonably financially affordable and physically practicable, will permit the safe movement of vehicular and pedestrian traffic on the adopted highway network.

This service provision will reduce the impact of the weather conditions on the national and local economy by facilitating the movement of traffic and pedestrians, minimising delays and incidents directly attributable to winter weather conditions.

1.2 Limitations

Given the scale of the financial, physical and other resources involved in delivering Winter Services along with the variety and timing of weather conditions that may be encountered, and the specialist equipment required, it is not practically possible to: -

- Provide the service on all parts of the network
- Ensure running surfaces are always kept free of ice or snow, even on the treated parts of the network.

2. Safety, Serviceability and Sustainability

2.1 Safety

Winter Service Operations are essential for public safety.

The carrying out of various salting activities and clearing the highway of snow and ice help to achieve this, together with advising the public on travelling in winter and self-help, such as use of salt bins.

Given the topography of the area, verge markers are used in certain locations.

2.2 Serviceability.

Maintaining the availability and reliability of the highway network is a key objective for the Winter Service provision. It is one where the user will tend to make judgements of performance immediately rather than longer term.

2.3 Sustainability

Low temperatures and the formation of ice can cause serious damage to the fabric of the highway running surface.

Winter Service operations can therefore make an important contribution to whole life costs and the performance of the highway.

The environmental impact of materials used to deliver the service can be reduced by the appropriate choices of materials and vehicles.

3. Legislation and Guidance

Legislation and guidance supporting the provision of winter service is that which is relevant to England, and is provided under the following legislation and code of practice: -

3.1.1 Highways Act 1980

Section 41

The authority who are for the time being the highway authority for a highway maintainable at the public expense are under a duty to maintain the highway.

(1A) "In particular, a highway authority is under a duty to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice."

Note - "This is not an absolute duty, given the qualification of 'reasonably practicable', but it does effectively overturn previous legal precedence, albeit not with retrospective effect.

Section 150 of the Act imposes a duty upon authorities to remove any obstruction of the highway resulting from *'accumulation of snow or from the falling down of banks on the side of the highway, or from any other cause'*.

3.1.2 Traffic Management Act 2004 - Network Management Duty

Part 2 of the Act places a network management duty on Local Traffic Authorities. Section 16 (1) states:

"It is the duty of a local traffic authority to manage their road network with a view to achieving, so far as may be reasonably practicable having regard to their other obligations, policies and objectives, the following objectives: securing the expeditious movement of traffic on the authority's road network; and facilitating the expeditious movement of traffic on road networks for which another authority is the traffic authority."

3.1.3 Health and Safety at work Act 1974.

Risk assessments for winter service operations.

3.2 Codes of Practice: -

Well-Managed Highway Infrastructure: A Code of Practice.

3.3 Regulations: -

Working time regulations.1998

Drivers' hours rules.

3.4 Other Guidance: -

- National Winter Service Research Group (NWSRG) - Practical Guidance for Winter Service.

- Winter Service guidance for local authority practitioners; UK Roads Leadership Group (UKRLG).

-Institute of Highway Engineers (IHE) - Well Managed Highway Liability Risk.

4. Winter Season

Generally, three distinct risk periods for winter conditions are identified, these are High, Marginal and Low.

For Redcar and Cleveland, the extent of these is shown in Table 4.1 below.

Table 4.1

Period	Sept	Oct.	Nov.	Dec.	Jan	Feb	Mar	Apr.	May
Low (during which severe conditions are unlikely)									
Marginal (during which severe conditions could arise)									
High (during which severe conditions might normally be expected)									
Winter weather forecast period									

5. Winter Standby Period

The winter standby period for the authority will normally run from the 1st of October until the 30th of April. These start and finish dates may vary dependent on the seasonal forecast conditions as agreed with the Head of Service.

A stand-by system will be operated during the above dates which ensures that drivers, other operatives and supervisors will be available to carry out precautionary salting and snow clearing activities.

Details will be recorded in the Operational Plan. The constraints of duty, driving hours and working time directive(s) will be managed to facilitate this.

6. Carriageway Treatments

6.1 Carriageway Priorities and treatments.

The priorities and treatments for carriageways are shown in Table 6.1 below.

Table 6.1

Pre-Salting Priority Level	Carriageway Network Road Type	Outline Description	Treatment Type
Precautionary Salting. Level 1:	Resilient Network	Priority Level 1 precautionary salting comprises the Resilient Network. The resilient network mostly resides within the Strategic, Primary and Main Distributor network of roads and it comprises the minimum network of roads which will be maintained in Redcar & Cleveland in times of extreme weather and significant disruption.	Precautionary salting or salting for the treatment of ice shall be undertaken whenever necessary.
Precautionary Salting Level 2:	Strategic Roads	Major national cross-country roads between places of traffic importance across the UK, with the aim of providing easily identifiable routes to access the whole of the country i.e. motorway network. Typically, major dual carriageways and major single A roads.	Precautionary salting or salting for the treatment of ice shall be undertaken whenever necessary.
Precautionary Salting Level 2:	Primary Roads	Serving as major arteries within the town providing quick access to urban areas, linking to major industrial/ retail areas and main centres of employment. These roads will typically be inner and outer ring roads.	Precautionary salting or salting for the treatment of ice shall be undertaken whenever necessary.
Precautionary Salting Level 3:	Main Distributor	Roads connecting urban areas to the inner and outer ring road. Typically, major bus routes and roads serving smaller retail i.e. District	Precautionary salting or salting for the treatment of ice shall be undertaken

		Centres, business and leisure facilities. Also including roads serving the city centre from the inner and outer ring roads. They are important for traffic within the town and are designed to carry moderate to heavy traffic loads. Typically, 40mph or greater and/or on a published bus route.	whenever necessary.
Precautionary Salting Level 3:	Secondary Distributor Roads	Roads providing alternative but less direct links between urban areas and the inner and outer ring roads. They typically are the main routes through residential and industrial areas and will have less traffic than Main Distributor Roads. They are important for traffic within the town but only carries moderate traffic loads.	Precautionary salting or salting for the treatment of ice shall be undertaken whenever necessary.
Precautionary Salting Level 3:	Tertiary Distributor Roads	Roads providing links within residential areas, often bus routes, small shopping frontages <4 shops. Typically, spine roads through urban estates collecting traffic from residential roads. Essential for local connectivity and access, serving local traffic.	Precautionary salting or salting for the treatment of ice shall be undertaken whenever necessary.
Secondary Salting:	Residential Roads	Roads serving to distribute users from Tertiary Roads to minor residential roads, often with on street parking and serving >30 properties including long cul-de-sacs and minor industrial estate roads	<u>Secondary Gritting:</u> These roads shall not normally receive precautionary salting and will be salted only in periods of severe weather providing the gritters are not required to deal

			with the precautionary salting routes. (see Section 20).
Secondary Salting:	Minor Residential Roads and Rear/Service Roads	Comprises the remainder of the rural/urban network: - Minor Residential Roads are short urban residential roads including those with a shared road space...typically cul-de-sacs with < 30 properties. Rear/Service Roads are urban residential roads with limited or no vehicular access. Often found in locations of terraced housing feeding access to the rear of the properties. Often narrow width <4m only wide enough to accommodate foot traffic, bicycles, or small vehicles, emphasizing its non-vehicular nature.	<u>Secondary Gritting:</u> These roads shall not normally receive precautionary salting and will be salted only in periods of severe weather providing the gritters are not required to deal with the precautionary salting routes. (see Section 20).

Treated network plans are shown in the Winter Service Operational and Supporting document.

Guidance on determining the network for treatment and the priority for the treatment is contained in the National Winter Service Research Group (NWSRG) guidance Section 13 'Route Selection and Optimisation'.

The networks for treatment within the authority have been determined based on the usage type and numbers, local climate, available alternatives, recent changes in network layout or usage, network hierarchy.

A record of the network review to determine risk, treatment, and priorities shall be maintained.

Dependent on the level of treatment required, this may be applied by one or more consecutive treatments as necessary.

6.1 1 Requests from emergency services.

Requests from the emergency services for localised treatment of the highway due to incidents or similar shall be advised to the duty decision maker, recorded and actioned as deemed appropriate.

6.1.2 Requests for a street(s) to be added to routes.

Any requests for additions to the network routes will be considered against the criteria for prioritising the network to be treated. A network review will generally only be undertaken during the pre-winter planning stage each year).

6.1.3 Treatment operations.

For precautionary salting, the precautionary networks are normally treated in a combined manner so to optimise the efficiency of the salting operations. In extreme conditions it may be necessary to treat the Priority 1-3 networks independently.

Where gritting and ploughing vehicles are unable to safely negotiate the route due to parked vehicles, that part of the route may be suspended, and the properties notified at the earliest opportunity that the carriageway must be kept clear to permit winter service operations. If the problem persists, the section of route will be withdrawn until it is safe for winter service vehicles to negotiate.

Should issues occur beyond the control of the authority, it may on occasions be necessary to reduce network treatment. Should such a situation arise, treatments may be reduced to the Priority 1 network. (Such changes are to be discussed with senior management prior to any implementation).

Where time, resources and working hours permit, and it is expedient to do so, all or some of the Priority 1 – 4 networks may, in advance of forecast severe weather), receive some pre-treatment.

6.1.4 Level Crossings.

Salting shall not be undertaken between the stop lines of level crossings, as guided by Well Managed Highway Infrastructure – Code of Practice. B.7.5.43.

Liaison with Network Rail should be undertaken for these areas.

6.2 Cross Boundary Arrangements

Agreements may be made with adjacent authorities for mutual salting and / or snow clearing operations.

Where in place, these shall be agreed and recorded by both authorities for clarity. (Details listed in the Operational document) Each shall ensure that the other is notified of such activities.

7. Footway Treatments

7.1 Footway Priorities and Treatment.

The treatment for footways is shown on Table 7.1 below.

Table 7.1

Priority	Outline Description	Treatment		
		Overnight Frost (but not extending beyond 10.00am)	Daytime Frost (extending beyond 10.00am)	Extended Frost
Footway Priority 1	Prestige/High pedestrian usage areas and any localised known high risk cold spots.	No Treatment	Treatment to commence at the start of the working day	Monitor and reactive or re-treatment as necessary
Footway Priority 2	Primary, busy urban shopping areas and main pedestrian routes	No treatment	Monitor and reactive treatment as necessary - within available resources following any footway Priority 1 treatments	Monitor and reactive treatment as necessary - within available resources following any footway Priority 1 treatments
Footway Priority 3	Secondary, medium usage routes through local areas feeding into priority Outside local shopping / medical centres, schools etc. Particularly steep gradients / steps where there are heavy concentrations of pedestrians.	No treatment	Monitor and reactive treatment as necessary following any footway Priority 1 or 2 treatments within available resources	Monitor and reactive treatment as necessary following any footway Priority 1 or 2 treatment works and within available resources.
Footway Priority 4	Linking local access footways through urban areas paths adjacent to OAP housing areas, other steep gradients and busy footways.	No treatment	No treatment.	Monitor and reactive treatment as necessary following other Priority footways, and within available resources.
Priority 5 Other footways	Local Access Footways associated with low usage, estate roads to the main routes and cul-de-sacs.	No treatment	No planned treatment	Monitor and reactive treatment as necessary following other priority footways - within available Resources

Priority	Outline Description	Treatment		
		Overnight Frost (but not extending beyond 10.00am)	Daytime Frost (extending beyond 10.00am)	Extended Frost
Subways	Access ramps and slopes	No treatment	Monitor and reactive treatment as necessary	Monitor and reactive treatment as necessary
Footbridges**	Steps / ramps / decks	No Treatment	Treatment to commence at the start of the working day.	Monitor and reactive or re-treatment as necessary

** The treatment of footbridges is different from other parts of the footway network. De-icing materials are to be used (other than rock salt due to its corrosive nature), and the decisions on treatment will be decided by the decision maker.

Guidance on determining the footway network for treatment and the priority for that treatment is contained in the NWSRG guidance Section 11 'Winter Service on Footways and Cycleways'.

The footways for treatment have been determined based on pedestrian usage and not the importance of the road in the network as listed in the Winter Service and Operational Supporting document.

8. Cycleway Priorities and Treatments.

The treatment of cycleway's is shown on Table 8.1 below.

Table 8.1

Pri	Cycleway Category	Description	Overnight Frost	Daytime Frost	Extended Frost
1	A	Cycle Lane: Forming part of the carriageway.	Treatment included where cycle lanes are part of the carriageway	Treatment included where cycle lanes are part of the carriageway	Treatment included where cycle lanes are included on the carriageway
2	B	Cycle Track (1): high usage cycle tracks and localised known cold spot locations.	Treatment to commence at the start of the working day	Treatment to commence at the start of the working day	Monitor and provide treatment as necessary within available resources.
3	B	Cycle Track (2): cycle routes contiguous and not contiguous with the public footway or carriageway or a shared cycle/ pedestrian path.	No precautionary treatment.	No precautionary treatment.	Monitor and provide treatment as necessary within available resources.
4	C	Cycle Trails: (non-highway). Remote leisure routes through open spaces. These are not necessarily the responsibility of the highway authority but may be maintained under other powers or duties.	Not covered under this policy.	Not covered under this policy.	Not covered under this policy.

Guidance on determining the Cycleway network for treatment and the priority for that treatment is contained in the NWSRG guidance Section 11 'Winter Service on footways and Cycleways'.

The network for treatment within Redcar and Cleveland Council has been considered using the above guidance and are recorded in the operational document.

9. Treatment for Snow Conditions

9.1 Carriageways

Snow clearing / ploughing will not usually commence until the snow depth reaches 25mm with further amounts of falling and settling snow expected. Plough blades shall be set to clear all possible snow from the carriageway surface and shall follow any specific guidance for snow ploughing contained in the operational plan.

9.1.1 Carriageway Priorities for Snow clearing.

Table 9.1

Snow Clearing and Salting Priority Level	Carriageway Network Road Type	Outline Description	Treatment Type
Snow Clearing and Salting Level 1:	Resilient Network (contained within various hierarchy groups)	Priority Level 1 for snow clearing and salting is initially applied to the Resilient Network. The resilient network mostly resides within the Strategic, Primary and Main Distributor network of roads that comprises the minimum network of roads which will be maintained in Redcar & Cleveland in times of extreme weather and significant disruption.	Snow clearing and salting for the treatment of ice shall be undertaken whenever necessary when the snow depth reaches 25mm with further amounts of falling and settling snow expected.
Snow Clearing and Salting Level 2:	Strategic Roads Primary Roads Main Distributor Sec Distributor	Comprises the remainder of the Strategic Network, Primary Route Network and other Main Distributor and Secondary Distributor roads that provide main traffic links in urban areas and those serving industrial estates.	Snow clearing and salting for the treatment of ice shall be undertaken whenever necessary. The Priority Level 2 road hierarchies will normally be treated as one network.
Snow Clearing and Salting Level 3:	Tertiary Roads Residential Roads Minor Res Roads	This network covers urban and rural link roads, other well used roads and other selective roads served by bus services.	When necessary, snow clearing shall commence as soon as possible once the Level 1 & Level 2 priority roads have been cleared and subject to

			available resources.
Snow Clearing and Salting Level 4:	Minor Res Roads Rear/Service Roads Unadopted Roads	Comprises the remainder of the rural/urban network where the roads are accessible for snow clearing and gritting.	Snow clearing shall commence when necessary, once the Level 1, Level 2 & Level 3 priority roads have been cleared and are subject to accessibility and available resources.

Network Type	Carriageway Network	Outline Description	Treatment Type
Priority 5	Local Access, Minor Roads & Other	Comprises the remainder of the rural/urban network.	When necessary, snow clearing shall commence as soon as possible once the Priority 1-3 networks have been cleared subject to available resources. and will be cleared in periods of severe weather*(see Appendix A2). If the gritters are not required to deal with priority 1-4 routes.

Pre-salting will be carried out in advance of forecasted snow, and the effect of trafficking is one of the factors which determine the optimum treatment.

The NWSRG guidance Section 9 'Treatments for Snow and Ice' gives guidance on dealing with snow conditions.

9.1.2 Streets with traffic calming

During snow ploughing of roads with speed humps or speed table, the mechanism of the vehicle will be lifted prior to passing over the speed hump and / or speed table.

9.1.3 Railway Crossings

Before snow ploughing commences over any level crossing the driver must stop and telephone the signal man for permission to proceed and then inform the signal man when past the crossing as guided by Well Managed Highway Infrastructure – Code of Practice. Section B-7.5.43

9.1.4. Use of additional resources.

When conditions are such, additional internal resources, and, or (i.e., local farmers or contractors) may be called on to assist with additional snow ploughing actions.

9.1.5. Carriageway Markers.

The topography of the area means there is higher ground and verge markers may be placed and maintained to mark the edge of the carriageway in snow conditions.

9.2 Footway priorities for Snow Clearing.

The priorities for dealing with snow clearance on footways are shown in Table 9.2 below.

Table 9.2

Snow Clearing and Salting Priority Level	Footway Network Footway Type	Outline Description	Treatment Type
Snow Clearing and Salting Level 1:	Prestige Walking Zones Footbridges and Subways	Priority Level 1 for snow clearing and salting is initially applied to the high usage Prestige Walking Zones, to selective localised cold spot locations, and to footbridge and subway access ramps and steps.	Monitor and apply reactive treatment as necessary, following snowfall. When time and resources allow precautionary treatment may be undertaken in advance of any snowfall on Pri 1 footways and on footbridges.
Snow Clearing and Salting Level 2:	Prestige Walking Zones Primary Walking Routes	Comprises the remainder of the Prestige Walking Zones and some Primary Walking Routes. These footways are busy urban and district shopping and business areas and main pedestrian routes, and areas outside hospitals.	Monitor and apply reactive treatment as necessary, within available resources. When time and resources allow some precautionary treatment may be undertaken in advance of snowfall.
Snow Clearing and Salting Level 3:	Primary Walking Routes Secondary Walking Routes	The remainder of the Primary Walking Routes and selective Secondary Walking Routes. Medium usage routes through local areas	Monitor and apply reactive treatment as necessary – within available resources following Priority

		Outside local shopping areas medical centres, schools, places of worship, etc. Footways with particularly steep gradients and steps.	Levels 1 & 2 footway treatments.
Snow Clearing and Salting Level 4:	Secondary Walking Routes Link Footways Local Access Footways	The remainder of the Secondary Walking Routes and other busy footways linking local access footways through urban areas, paths adjacent to OAP housing areas and other steep gradients.	Treatment not normally undertaken except in specific circumstances i.e., during severe weather - Following Priority Levels 1, 2 and 3 and within available resources.
Snow Clearing and Salting Level 5:	Remote Footways Unadopted Footways	Footways associated with low usage pedestrian trafficking.	Treatment not normally undertaken except in specific circumstances i.e., during severe weather - Following Priority Levels 1, 2, 3 and 4 and within available resources.

** The treatment of footbridges is likely to be different from other parts of the footway network.

9.3 Cycle Ways snow clearing

Snow clearing from cycle lanes and tracks may be attended to following necessary works on carriageways and footways (where not carried out as a combined process) when suitable resources become available. The priorities for these are shown in Table 9.3 below.

Table 9.3

Snow Clearing and Salting Priority Level	Cycleway Network	Outline Description	Treatment Type
Snow Clearing Level 1:	A: Cycle Lane:	Forming part of the carriageway without physical obstructions	Snow clearing treatment included where cycle lanes are included on a Strategic or Primary route.
Snow Clearing Level 2:	B: Cycle Track (1):	High usage cycle tracks and localised known cold spot locations.	Monitor and apply reactive treatment as necessary following snowfall, during the next working day and following Priority Level 1 treatments. When time and resources allow precautionary treatment may be undertaken in advance of snowfall.
Snow Clearing Level 3:	B: Cycle Track (2):	Cycle routes contiguous and not contiguous with the public footway or carriageway or a shared cycle/ pedestrian path.	Where shared with a priority footway, the cycleway will be attended to at the same time.

			Other cycle tracks may be attended to as resources allow following the Priority Level 1 and 2 treatments.
Snow Clearing Level 4:	C: Cycle Trails:	(non-highway). Remote leisure routes through open spaces. These are not necessarily the responsibility of the highway authority but may be maintained under other powers or duties.	Not covered under this policy.

Where cycle lanes are at the edge of the carriageway, it may not be possible to clear or remove all snow.

10. Response and Treatment Times

10.1 Response time.

This is the period between a decision being taken to undertake treatment of the network and loaded vehicles leaving the depot.

The response times shall be.

- a. During the working day – 1 hour 30 minutes
- b. Out of working hours – 2 hours.

10.2 Treatment time.

This is the period between the loaded vehicles leaving the depot and the completion of precautionary treatment on Priority 1-3 routes.

The target treatment time for precautionary salting is a maximum of 3 hours. It should be recognised however, that actual treatment times may well vary in different weather and traffic conditions.

11. Weather Forecasting, Decision Making and Support Systems.

11.1 Weather Forecasting

The Authority will procure a weather forecasting service from a competent forecast provider in collaboration with the Tess Valley authorities and procured through the NEPO Framework for the winter period as shown in Section 4.

This should include suitable resilience and support services.

Should the winter conditions extend outside the above period for any reason, a facility for the service to be extended shall be available.

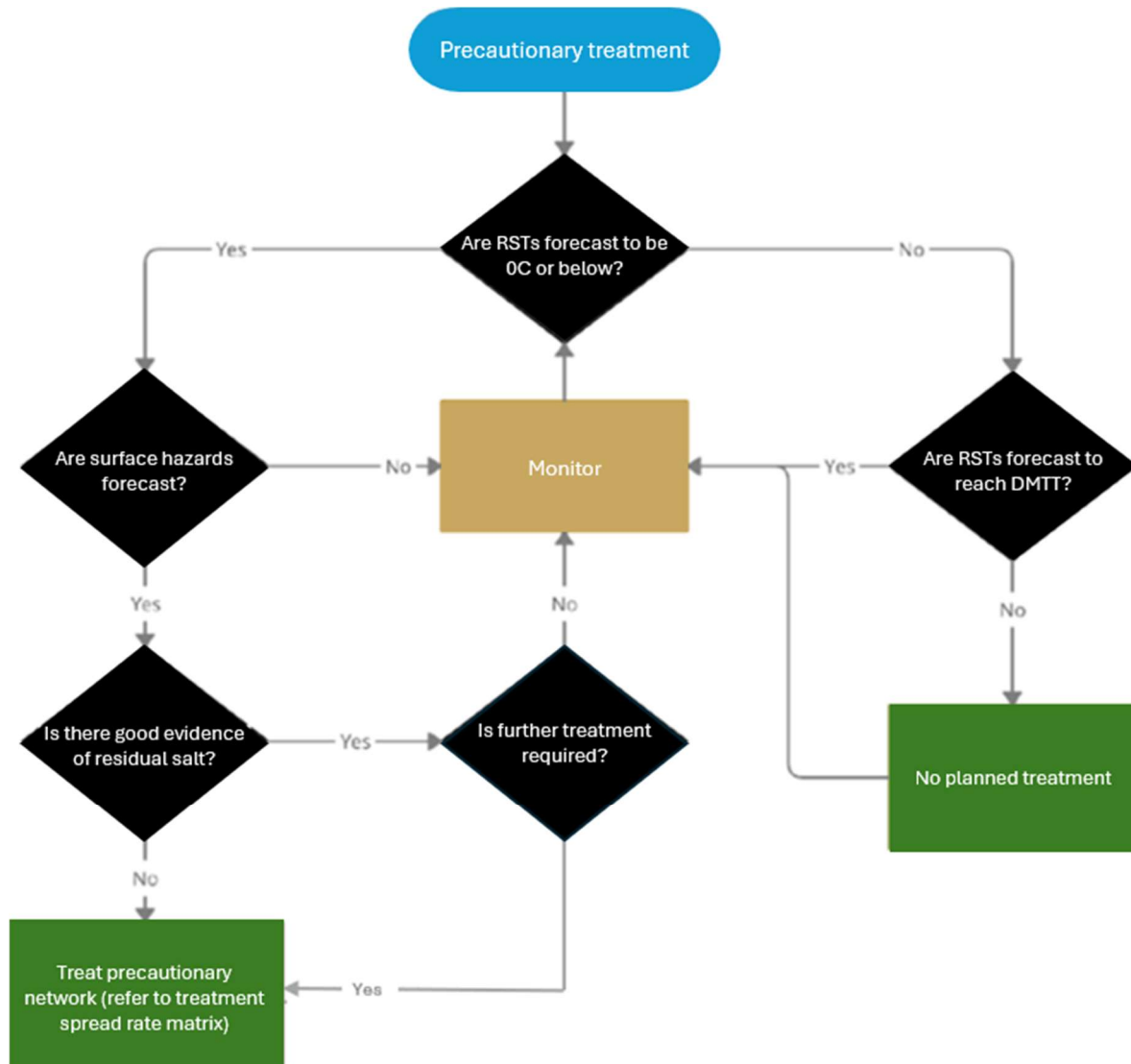
11.2 Decision Making

Trained and competent staff (See section 13) will be available throughout the winter season (See Section 4) to make operational decision(s) on any action(s) required both in and out of office hours.

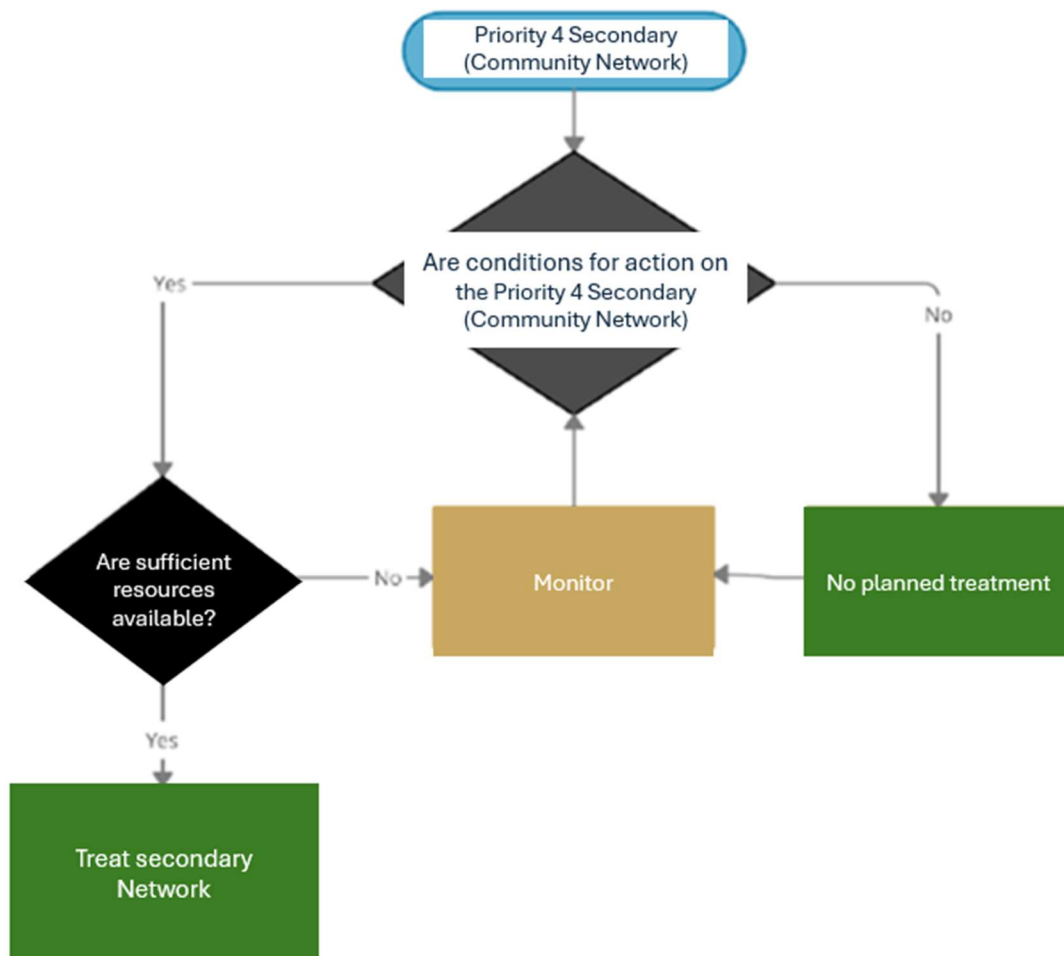
Initial decisions will normally be made by 12:30 Hrs. each day for planned action during the period 13:30 to 07:30 hrs.

Monitoring of conditions will be carried out as necessary by decision makers and other decisions made as appropriate.

Decision making guidance is shown in the flow charts below.



Decision Making Temperature Threshold (DMTT) +0.5 Celsius.



Decisions on any action required or not as appropriate will be communicated to operational staff and managers by email or other electronic means. Winter service activities shall also be advised to adjacent local authority's key contacts, emergency services and others as agreed by the authority for information.

11.3 Decision and Treatment Records.

All decisions (action or no action) and supporting information shall be recorded on the appointed weather forecast providers application and appropriate forms.

Records for activities undertaken shall include, but not be limited to, the following: -

Instructions received and time.	Treatment start time
Treatment completion time	Action(s) undertaken
Problems encountered/observed	Driver details
Material type and usage quantities	Duty hours and breaks
Supervisor details	Vehicle breakdowns
Vehicles / equipment used	Route Reference / ID
Spread Rates	

The use of vehicle tracking, and data logging shall also be used where available.

11.4 Decision Support Systems and Information.

A decision support system shall be available to assist the Decision Maker with decision making.

Available information should include all those marked *** in Table 11.4 below, along with any other supporting information where available such as those marked #

***Weather forecasts (both 24Hr and longer term)	***Road Surface state information	***Weather radar
***Forecast Temperature graphs	***Records of past actions	***Traffic levels guidance
***Ice detection	***Target spread rates for conditions	***Condition of salt stocks
# Thermal mapping or Route based data	*** 24hr access to weather forecast provider	***Gritting Vehicles spreading capability and performance

Table 11.4

The decision support system and all associated equipment shall be suitably calibrated and maintained in accordance with the manufacturer's recommendations.

11.5 Residual Salt.

The decision to rely on previously spread salt ("residual salt") will need to include a risk assessment of the probability of ice and hoar frost forming against the residual salt levels by considering the following factors:

- a. Time since last salting.
- b. Forecast of minimum surface temperatures
- c. The amount and rate of any rainfall since the last treatment.
- d. Surface water from sources including, runoff, thaw, water leaks, etc.
- e. Sensor information
- f. Traffic levels.
- g. De-icing materials used.

Any decision to rely on residual salt should be recorded and documented.

There is guidance on the above in the NWSRG documents, Section 8 'Spread rates for Precautionary Salting'.

12. Vehicles and Plant

12.1 Gritting Vehicles

A range of suitable demountable and / or purpose-built vehicles will be maintained for winter gritting and snow clearing purposes based on the authorities selected treatment types.

Suitable equipment shall also be available for the treatment and snow clearance of pedestrian and cycling facilities.

(A schedule shall be maintained and listed in the operational document).

12.2 Calibration and Monitoring

All vehicles used for precautionary salting shall be calibrated prior to the start of the winter season.

A calibration certificate shall be provided for each vehicle at the start of each winter period. Vehicles shall be monitored during the season for any signs of deviation from correct operation. Any suspected operating problems shall be reported, recorded and re-calibration or maintenance shall be carried out as necessary.

The process for checking and recording shall be held in the Operational document.

Guidance shall be taken from the NWSRG document Section 6 'Spreader Management'.

12.3 Other Plant and equipment

Provision shall be made to source additional plant and drivers as necessary such as from local plant hire companies and farmers, especially during severe conditions. Such arrangements may be recorded in the operational plan.

13. Training

13.1 Decision makers.

The authorities' officers involved with making winter service decisions will all: -

- a. Have undertaken initial one day standard winter maintenance training course with the appointed weather forecast provider, or equivalent training and subsequent refresher or advanced training.
- b. Train for; and undertake the IHE Winter Service Decision Makers Course prior to being a decision maker.
- c. Shall be mentored and supervised until such time as they are deemed competent.
- d. Training shall be sourced from appropriate forecast or training providers.

13.2 Drivers and Supervisors.

All drivers of winter service vehicles and winter service supervisors shall be trained to a suitable standard. (NVQ or City and Guilds in winter service).

13.3 Other Winter Service Operatives

Instruction and training shall be given where necessary in their duties and responsibilities.

13.4 Snow Wardens and volunteers.

Where volunteer Snow Wardens and other volunteers are authorised to undertake any activities, they shall be trained as in 13.4 above.

13.5 Training Records

Records of all training and Snow Wardens shall be kept.

14. De-Icing Materials

The following materials shall be available for use based on the authorities' review of materials. NWSRG Section 5, 'Treatment methods.

- a. Rock salt to BS 3247-2011 (6mm grade)
- b. Rock salt to BS 3247-2011 (10mm grade)

Additional materials

- c. De Icing liquids/solids.
- d. Abrasives (6mm gritstone)

The temperature below which salt can be effective in practice is down to about -7oC, the amount that needs to be used below this temperature becomes prohibitive.

14.1 Material type options for Carriageways.

The materials that may be used are shown in Table 14.1 below.

Material	Precautionary (Frost)	Pre-Snow	Snow / Ice	Post Snow
Rock salt (6mm)	Yes	Yes	Yes	Yes
Abrasives (6mm)	No	No	Yes	Yes

Table 14.1

14.2 Material options available for Footways, Cycleways and Subways

Material	Precautionary (Frost)	Pre-Snow	Snow / Ice	Post Snow
Rock Salt (6mm)	Yes	Yes	Yes	Yes
Abrasives (6mm)	No	No	Yes	Yes

14.3 Material type options for Footbridges

Footbridges	Precautionary (Frost)	Pre-Snow	Snow / Ice
Abrasives	No	Yes	Yes
De-icing materials	Yes	Yes	Yes

14.4 Materials Storage

Materials are stored and available from the following locations, but they are not under the direct control of Redcar and Cleveland Council.

- Middlesbrough Council Salt Barn at Cargo Fleet Depot
- Boulby Salt Mine.

Service level agreements will be in place to ensure availability of supplies on an agreed basis.

All materials shall be stored in an appropriate and safe manner while maintaining optimum condition as far as possible. The effects of run off and leaching shall be considered, and any necessary controls complied with.

Salt being used for precautionary salting shall be tested and checked for moisture content on a regular basis and records kept.

The NWSRG guidance Section 4 'Salt Storage' provides guidance.

14.5 Stock and Stock Levels

Procurement of de-icing materials along with satisfactory delivery arrangements shall be in place prior to the start of the winter season. These should be identified in the operational plan.

A minimum stock shall be available as per the table in Section 19 – Resilience.

Stock knowledge and its availability shall be Undertaken by Middlesbrough Borough Council and Boulby Potash. This will ensure adequate availability of supply over the winter period.

Particular attention shall be paid at the following times.

- Before and during holiday periods.
- During any increased levels of operation.
- In advance of any significant forecast weather conditions.

14.6 Materials for more Severe Conditions

During severe or prolonged conditions, sand, grit etc. (which acts as an abrasive) may be used to augment salt supplies and assists in the breakdown of any ice that may have formed. Availability of stock shall be identified at the time.

14.7 Effectiveness of Salt

It should be noted that rock salt starts to become less effective when the temperature falls below minus 5° C and below minus 11° C salt becomes virtually ineffective.

Rock salt requires vehicles to pass over to create the chemical reaction needed to melt the ice and or snow.

15. Spread rates and treatment routes

15.1 Spread Rates

Required spread rates will vary according to forecast conditions, de-icing materials used and network attributes.

An authority prepared guide for decision makers use on Spread Rates for precautionary salting has been determined using the NWSRG Guidance Section 8 'Spread Rates for Precautionary Salting' and is maintained in the operational document.

15.2 Design of treatment Routes

The design of treatment routes will determine the ability to undertake treatments in a single pass or multiple passes in accordance with the requirements of the forecast conditions.

Precautionary treatment routes will be designed and optimised to be as efficient and effective as practicable.

The legal carrying capacity of the vehicles, required spread rate(s), material type, storage location, and vehicle type will all impact on achieving operational efficiency and effectiveness, while also understanding the environment and topography of the area.

Key routes on our network that provide access to Hospitals, Tees Port and are well used bus routes are,

- The A66, A171, A173, A174, A1042, A1053 and the A1085
- also,
- West Dyke Road, Redcar.
- Tees Dock Road, Grangetown.
- Alford Road and Kilton Lane, Brotton.

16. Salt bins and heaps

16.1 Provision

Salt bins can be a useful addition to the network if placed in appropriate locations, managed, serviced and used. It is unrealistic to place out bins in such numbers that they cannot be serviced and refilled when needed most.

Salt bins may be provided on, and for use within, the public highway where certain criteria are met.

Salt Heaps may also be located in other suitable locations. These, however, can have a more environmental impact.

16.1.1 Carriageways

At sites on the public highway where the vertical or horizontal profiles are such that problems for the public may be foreseen and they are not on a Priority 1-3 precautionary treatment route. (a vertical profile will normally need to exceed a gradient of 10%) / (1 in 10)

On precautionary treatment routes only where, previous experience has shown a particular risk.

16.1.2. Footways and Cycleways

Where requested to help facilitate treatment on footways, these will be considered alongside those for carriageways.

16.2 Assessments

All requests for salt bins/heaps will be subject to a site assessment and scoring. There is a need to ensure a holistic approach to this area of the service, all salt bins will be subject to an annual review. Assessments will be recorded against a standard set of criteria and a list of approved locations held. – (Refer to *Winter Service Operational and Supporting document for assessment sheet and grit bin list*)

16.3 Removal.

Where placed in locations that are subject to repeated vandalism or complaints they may be removed.

Salt bins will be removed where network changes etc. are carried out, and the identified risks are alleviated or removed, resulting in a reduced assessment score.

16.4 Location and Siting

Wherever possible these shall be sited away from trees, hedges, grassed areas and watercourses etc. for environmental reasons.

Bins shall only be located where they may be used safely and will not impede / obstruct the use of the highway.

For practicality and efficiency, locations will not normally be located closer than 250 linear metres to each other.

16.5 Maintenance

Salt bins will be checked, replaced, filled as necessary prior to the start of the 'high' winter period and replenished as necessary subject to available resources until the 'high' winter period is over.

Unless otherwise specifically identified, salt bins will remain on site outside of the winter period.

17. Salt Reciprocal arrangements and Works for outside bodies / other departments.

17.1 Reciprocal Arrangements

Reciprocal arrangements with adjacent local authorities will be put in place where both parties agree, and such arrangements have a beneficial outcome with regards to efficiencies and network continuity provision. These shall be recorded in the Winter Service Operational and Supporting Documents.

17.2 Works for other Departments or Outside bodies

Council highway car parks may be treated after adverse weather conditions as per the list in the operational document when resources allow.

Works will be undertaken for other council departments if resources are available, and they are not required for works on the public highway. Any agreed works to be carried out would only be done on a fully rechargeable basis.

Works for external or private bodies will not normally be undertaken.

18. Publicity and Public Contact points

18.1 Publicity

Information on the winter service provision and activities shall be prepared and available to the public via some or all of the following: -

- Press release through comms team.
- Redcar and Cleveland Council internet web site.
- Authority Social media sites i.e. twitter Facebook.

18.2 Contact points.

During significant weather events, we set up a Winter Hot Desk. (usually at Grangetown Depot) as a single point of contact to avoid duplication of responses. Work has been undertaken to develop a traffic light system (Red, Amber and Green) approach to prioritising requests from the public during severe or extreme weather events.

Calls of a lesser priority will be redirected to Neighbourhood teams who are able to deal with these requests at a local level and provide the caller with updates.

This approach is designed to improve our response to emergency and priority requests keeping residents fully informed.

The contact details for enquiries to the council are.

Daytime: 01642 774774

Out of Hours: 01642 774774

19. Service Resilience

19.1 Salt Stock Levels

In ensuring adequate provision has been made throughout the service in respect of resilience the following should be considered as 'necessary' based on the Authorities' precautionary treated network. And the guidance reference below*.

	Days	Runs /day. (No)	Spread rate(g)	Tonnes / run	Total (Tonnes)
1st low period	6	4	20	38	912
1st marginal period	8	4	20	38	1216
High period	12	4	20	38	1824
2nd marginal period	8	4	20	38	1216
2nd low period	6	4	20	38	912

*Resilience stock levels of rock salt recommended (*The Resilience of England's Transport Systems in Winter - Recommendation 25: A new resilience benchmark of 12 days/48 runs should be adopted for pre-season stockholding for English local highway authorities*)

This stock will be made up as shown on the table below. (responsibility of Middlesbrough Borough Council).

Depot	Measured date	Storage Method	6mm Salt (Tonnes)	10mm Salt (Tonnes)	Total (Tonnes)
Cargo Fleet	Start of winter period	Barn	4500	N/A	4500
Boulby Mine	Start of winter period	Mine	Direct from mine.	Direct from mine.	Unlimited
Total at start of winter			As above	As above	As above

19.2 Additional Salt

Additional salt stock is not required on a regular basis, but arrangements shall be in place to ensure stock availability if required.

19.3 Fuel stock

Redcar and Cleveland Borough Council have a combination of Fuel cards and fuel storage.

Fuel cards for use from local service stations.

Diesel at Grangetown depot.

19.4 Staffing

Plans shall be in place to be able to roster for 24-Hour working single staffing or double staffing operations during the appropriate periods and taking into necessary account driving and duty hours legislation.

Staffing availability and rotas shall be held in the Winter Service Operational and Supporting Documents.

20. Extreme Conditions

Where, due to circumstances outside of the control of the Authority it is recognised that continuing action in accordance with the pre-determined policy cannot be maintained, treatment shall be reviewed and tailored in discussion with senior management.

This will be based on available resources, network priorities, current weather and forecast conditions.

20.1 Escalation

The decision maker will monitor weather forecasts and conditions throughout the period and be aware of any significant events that may be forecast.

Any potential identified issues shall be brought to the attention of the Bronze, Silver and Gold duty officers as necessary.

Where a need for resources and / or action outside of normal winter conditions is identified, then senior management shall be advised as soon as possible.

In the event of severe weather conditions, information will be provided for the attention of the Bronze, Silver or Gold duty officers as necessary.

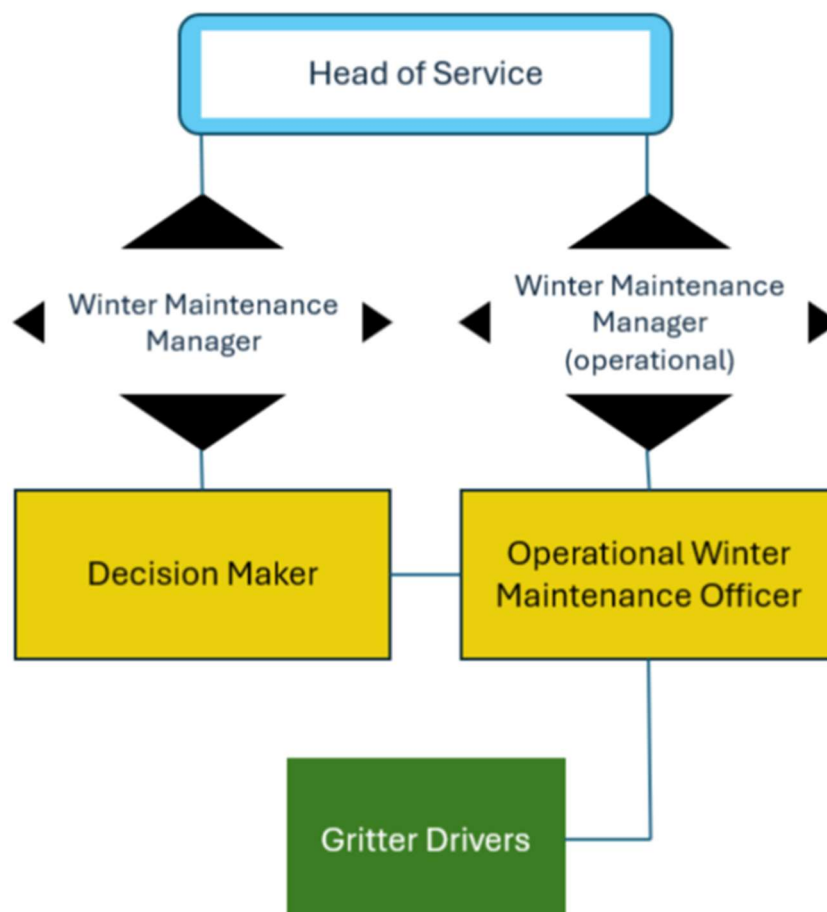
Publicity arrangements will then be made to advise the public of the operations that are going to be undertaken.

21. Record Keeping

Winter service operations may comprise of planned activities or unplanned activities. Records shall be kept of all winter service activities. These will comprise of, but not be limited to: Decision records, Communications, salting actions, Snow clearing, Calibrations, Maintenance, Duty logs and Vehicle tracking.

22. Operational Management

The operational management for winter service shall be as below: -



APPENDIX A1 - Circulation List

Internal	No	Method
North Yorkshire County Council (Area 2 & 3)		
Middlesbrough Borough Council		
Stockton Borough Council		
Hartlepool Borough Council		
Sir Robert McAlpine (A19 ROM)		
Redcar and Cleveland Borough Council Call Centre		
Beyond Housing Call Centre		
Thirteen		
Senior Management		
National Highways		
Other Organisations		
Hospitals James Cook University Hospital. Middlesbrough. Redcar Primary Care Hospital, Redcar. East Cleveland Primary Care Hospital, Brotton.		
Emergency Planning Unit. Stuart Marshall - Chief Emergency Planning Officer / LRF Manager, Cleveland Emergency Planning Unit, Hartlepool Borough Council		
*TMLG - All Emergency services		
*Buses - Arriva / Stagecoach / Hodgsons		
TVCA. tony.wrigglesworth@teesvalley-ca.gov.uk		

APPENDIX A2 - Glossary of Terms

For the purposes of the provision of the winter service, the following terms are used: -

Carriageway network definitions.

1. Strategic Routes - Those as defined nationally.
2. Primary Route Network (PRN) - Principal 'A' class Roads linking between primary destinations.
3. Resilient Network. As defined by the Authority.
4. Precautionary Salting Network- As defined in Sections 5, 6 and 7 of this document.

Carriageway network definitions.

5. Main Bus Route. As agreed between Redcar and Cleveland Council and the local bus operators.
6. Main Traffic Links. Roads that link in residential / industrial areas.
7. Highway. Defined as the adopted carriageway, footway, pedestrian area or cycleway for which Redcar and Cleveland Council are the maintaining Highway Authority.
8. Normal Working Day. Deemed to be the period between 07:30 and 15:30 Monday to Thursday (15:00 Friday)
9. Extended Frost. Where a visible hoar frost (not snow or ice) is present for more than 24 hrs with a forecast for road surface temperatures not to rise above zero for a further 24 hrs.
10. Daytime Frost. Where a visible frost is present and is forecast to be present (Road Surface Temperature (RST) <= 0) past 10:00 hrs.

11. Overnight Frost. Where a visible frost is forecast / occurs overnight but is not forecast beyond 10:00 hrs.

12. Normal Conditions. Road and weather conditions that might normally be expected during the winter period. (this includes frosts, rain, winds, light snow).

13. Severe Weather. Defined as 'widespread ice or snow (not frost) is present on the network for more than 24 hours with a forecast for road surface temperatures not to rise above zero for a further 24 hrs.

14. Extreme Conditions. When factors outside the control of the authority affect the ability of the authority to deliver, its pre-determined policy in normal / severe winter conditions or weather conditions themselves are declared as such.

15. Approved Weather forecast providers have an application that we use that delivers critical weather information when we need it. This application helps us to plan, prepare and respond to hazardous weather events.

Acronyms used

RCBC	- Redcar and Cleveland Borough Council
MBC	- Middlesbrough Borough Council
NWSRG	- National Winter Service Research Group
UKRLG	- United Kingdom Roads Leadership Group
WMHI	- Well Managed Highway Infrastructure
AADF	- Annual Average Daily Flow
IHE	- Institute of Highway Engineers
RST	- Road Surface Temperature
VPD	- Vehicles Per Day
DTN	- Data Transmission Network
PRN	- Primary Route Network
HGV	- Heavy Good Vehicle
NVQ	- National Vocational Qualifications
DMTT	- Decision Making Threshold Temperature
TVCA	- Tees Valley Combined Authority
TMLG	- Traffic Management Liaison Group
LRF	- Local Resilient Forum

Resilient Network

The Highway Infrastructure Resilient Network provides the minimum network of roads which will be maintained in Redcar & Cleveland in times of extreme weather and significant disruption. The resilient network will be given priority, so to maintain economic activity and access to key services and critical infrastructure during extreme weather.

Out-of-hours emergency call out - Bronze, Silver and Gold Officers

Bronze officers -Designated *Transport, Engineering and Highways team members.*

Silver officers - Designated *Managers, Head of services and Assistant directors.*

Gold officers - Designated Senior Council officers.

APPENDIX A3 - Treatment Alignments

Precautionary Salting Level 1		Precautionary Salting Level 2		Precautionary Salting Level 3		Secondary Salting				
Specific salting criteria outlined in Winter Maintenance Policy		Specific salting criteria outlined in Winter Maintenance Policy	Specific salting criteria outlined in Winter Maintenance Policy	Specific salting criteria outlined in Winter Maintenance Policy	Specific salting criteria outlined in Winter Maintenance Policy	Specific salting criteria outlined in Winter Maintenance Policy	Specific salting criteria outlined in Winter Maintenance Policy	Specific salting criteria outlined in Winter Maintenance Policy		
		Specific criteria that defines Strategic Roads	Specific criteria that defines Primary Roads	Specific criteria that defines Main Distributors	Specific criteria that defines Secondary Distributors	Specific criteria that defines Tertiary Distributors	Specific criteria that defines Residential Roads	Specific criteria that defines Minor Roads	Specific criteria that defines Rear/Service Roads	
RESILIENT NETWORK Strategic minimum network required to be maintained during periods of extreme weather, disruption or disaster.	3rd Party Consultation Critical Infrastructure Access	Specific criteria that defines Strategic Roads	STRATEGIC ROADS Major national cross-country roads between places of traffic importance across the UK, with the aim of providing easily identifiable routes to access the whole of the country i.e. motorway network. Typically, major dual carriageways and major single A roads.	PRIMARY ROADS Serving as major arteries within the town providing quick access to urban areas, linking to major industrial/ retail areas Precautionary salting or salting for the treatment of ice shall be and main centres of employment. These roads will typically be inner and outer ring roads.	MAIN DISTRIBUTORS Roads connecting urban areas to the inner and outer ring road. Typically, major bus routes and roads serving smaller retail i.e. District Centres, business and leisure facilities. Also including roads serving the city centre from the inner and outer ring roads. They are important for traffic within the town and are designed to carry moderate to heavy traffic loads. Typically 40mph or greater and/or on a published bus route.	SECONDARY DISTRIBUTORS Roads providing alternative but less direct links between urban areas and the inner and outer ring roads. They typically are the main routes through residential and industrial areas and will have less traffic than Main Distributor Roads. They are important for traffic within the town but only carries moderate traffic loads.	TERTIARY DISTRIBUTORS Roads providing links within residential areas, often bus routes, small shopping frontages <4 shops. Typically spine roads through urban estates collecting traffic from residential roads. Essential for local connectivity and access, serving local traffic.	RESIDENTIAL ROADS Roads serving to distribute users from Tertiary Roads to minor residential roads, often with on street parking and serving >30 properties including long cul-de-sacs and minor industrial estate roads	MINOR RESIDENTIAL ROADS Comprises the remainder of the rural/urban network- Minor Residential Roads are short urban residential roads including those with a shared road space...typically cul de-sacs with < 30 properties.	REAR / SERVICE ROADS Rear/Service Roads are urban residential roads with limited or no vehicular access. Often found in locations of terraced housing feeding access to the rear of the properties. Often narrow width <4m only wide enough to accommodate foot traffic, bicycles, or small vehicles, emphasizing its non-vehicular nature.
			Specific criteria that defines Strategic Roads	Specific criteria that defines Primary Roads	Specific criteria that defines Main Distributors	Specific criteria that defines Secondary Distributors	Specific criteria that defines Tertiary Distributors	Specific criteria that defines Residential Roads	Specific criteria that defines Minor Roads	Specific criteria that defines Rear/Service Roads
			Roads assessed to have comparable risk	Roads assessed to have comparable risk	Roads assessed to have comparable risk	Roads assessed to have comparable risk	Roads assessed to have comparable risk	Roads assessed to have comparable risk	Roads assessed to have comparable risk	Roads assessed to have comparable risk
			M101	M102	M103	M104	M105	M106	M107	M108
			1 Month Inspection Regime	3 Month Inspection Regime		6 Month Inspection Regime		12 Month Inspection Regime		