



North Ayrshire Council
Comhairle Siorrachd Àir a Tuath

Commercial Services

**Roads Winter Service
and
Weather Emergencies Plan**

2018 – 2019

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1. INTRODUCTION

North Ayrshire Council has a statutory obligation, under Section 34 of the Roads (Scotland) Act 1984, to take such steps as it considers reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over public roads which by definition includes carriageways, footways, footpaths, pedestrian precincts, etc.

In its statutory role as the local Roads Authority, the aim of North Ayrshire Council in respect of its winter service and weather emergencies is to:-

- (i) provide a standard of service on public roads which will permit safe movement of vehicular and pedestrian traffic appropriate to the prevailing weather conditions;
- (ii) establish a pattern of working which will keep delays, diversions or road closures to a minimum during adverse weather conditions;
- (iii) conduct operations having regard to the requirements of the Health & Safety at Work Act 1974 and any other relevant enactments.

This Plan only relates to the Council's duties as Roads Authority and does not cover the wider response of the Council during winter and other weather emergencies.

North Ayrshire Council has no responsibility for the treatment of trunk roads. From 1st April 2001, the contract for management and maintenance of the trunk roads in Scotland has been awarded by the Scottish Government to the private sector. The successful contractor for the South West of Scotland is Scotland TranServ and the roads involved in North Ayrshire are as follows:-

A78 full length from Meadowhead roundabout, Dundonald to Inverclyde boundary at Skelmorlie;

A737 Dalry Road, Kilwinning to Renfrewshire boundary;

A738 Pennyburn roundabout to A737 Dalry Road, Kilwinning

All winter gritting and snow clearing operations on these roads will be the responsibility of Scotland TranServ. North Ayrshire Council's Commercial Services (Roads & Transportation) and Scotland TranServ liaise on a regular basis during periods of adverse weather in order to provide the best possible service to the travelling public.

North Ayrshire Council is also responsible for the management and operation of the coastal flood protection controls at Largs and Saltcoats. The Council will close the flood gates on the promenade and erect the flood barriers at Largs Pier in advance of predicted severe weather with minimum disruption to promenade users and the Largs to Cumbrae ferry. Coastal flooding can occur at any time and, accordingly, the Council will provide this service throughout the year.

In the event of extreme weather similar to that which was experienced on Arran late March 2013 where major disruption affects large parts of the community, a coordinated response is adopted by the Council to ensure public safety. In dealing with such emergencies, the Police initially lead the emergency or response stage of the emergency. Thereafter, the Council leads the recovery stage. Generally, there are 3 levels of Civil Contingencies response. There is a strategic group at National or Strathclyde wide level, a tactical group at North Ayrshire level and an operational group at local level.

The Ayrshire Civil Contingencies Team (ACCT) act as lead for the Council and implement the Civil Contingencies Plan liaising with all relevant Stakeholders identified within the Plan.

2. PRIORITIES FOR WINTER TREATMENT

North Ayrshire Council has defined the priorities for carriageway and footway/footpath treatment as follows:

2.1.1 Carriageway Priorities

Where slush is formed, this shall be removed as soon as practicable to avoid the risk of rutting should there be a further significant fall in road temperatures which might result in freezing conditions.

2.1.2 Carriageway Routes for Proactive Treatment

Priority 1 – Strategic, Main Distributor and Distributor routes, bus routes and certain pre-determined Secondary Distributor routes identified from the Local Transport Strategy (LTS) will be treated when it is forecast that snow or ice is likely to be present on road surfaces.

Due to the various climatic domains within North Ayrshire the Priority 1 routes may be adjusted to cover either the four pre-determined Inland Routes or two pre-determined High Routes which all currently form part of our existing Priority Network.

Priority 1 gritting routes are available on the Council website (See Appendix A).

2.1.3 Carriageway Routes for Reactive Treatment

- a) **Priority 2** – Remaining Secondary Distributor, local access and residential distributor roads.

Given the presence of ice and snow Priority 2 routes may be treated during normal working hours as resources permit when sub-zero temperatures are forecast to continue beyond midday following completion of Priority 1 routes.

- b) **Priority 3** – The remaining road network including minor rural unclassified routes and remaining residential areas not already covered

Priority 3 routes will be treated as resources permit when sub-zero conditions are forecast to continue over an extended period only after all Priority 1 and Priority 2 routes are clear unless it is identified as an emergency.

2.1.4 Carriageway Routes for Snow Clearance

On receipt of a weather warning predicting medium (25 - 100 mm deep) or heavy (over 100 mm deep) snowfalls, the Senior Manager (Network) where appropriate, will recall to depots such vehicles capable of being equipped with snowploughs.

While snow is still falling the Strategic and Main Distributor Network will be prioritised for ploughing and treatment in order to target resources and to keep these routes open for traffic.

After snow has stopped falling but is lying, the remaining Priority 1 precautionary routes will be ploughed and treated before commencing ploughing and treatment on Priority 2 and Priority 3 routes as resources and conditions permit.

2.1.5 Cumbrae

There are no Roads Operatives based on the Isle of Cumbrae, however arrangements have been made with Streetscene to carry out gritting operations on the Island.

2.2 Footway/Footpath Priorities

With limited resources available footways and footpaths will only be treated when considered necessary (e.g. heavy snowfall or extensive icing). They will normally only be treated during normal working hours (commencing from 8:00am), but arrangements are in place to undertake emergency work out of normal working hours, weekends and public holidays in extreme circumstances.

Generally, treatment of footways and footpaths will be reactionary and not pre-planned, and where possible work will be undertaken during normal working hours.

When treatment is instructed the following priorities will apply:-

Priority 1 Routes will be considered for treatment if it is forecast that ice or snow is likely to be present or where surfaces are wet with temperatures forecast to remain below zero until 10:00am the next working day.

Priority 1 Routes - Urban shopping areas and precincts, footway access to schools, emergency facilities including fire and rescue, police and ambulance services, hospitals, sheltered housing, doctors surgeries and health centres etc;

Priority 2 routes will be treated if it is forecast that ice or snow is likely to be present with temperatures forecast to remain below zero for a prolonged period only after priority 1 routes are clear.

Priority 2 Routes - Steep hills on main distributor and residential distributor routes, routes to bus stops etc, only after all Priority 1 have been cleared;

Priority 3 routes will be treated if it is forecast that ice or snow is likely to be present with temperatures forecast to remain below zero for a prolonged period only after priority 1 and 2 routes are clear.

Priority 3 Routes - Other areas of high pedestrian concentration.

Streetscene staff will assist with the treatment of footways.

In order to maximise coverage on footways, generally only one side of a road will be initially treated.

It is not possible for the Council to treat all footways and footpaths within North Ayrshire. As such the Council encourages the community to participate in self help, through the use of grit bins which can be requested through the grit bin application process. Grit bins will only be allocated where it has been assessed and deemed as an appropriate location by the Council.

2.3 Cycle Routes

With limited manpower resources no treatment will be carried out on off road cycle routes.

2.4 Response and Treatment Times

Routine precautionary salting of priority 1 carriageway routes should be completed within 3 hours of the planned start time. For emergency or unplanned salting the start time from leaving the depot shall be no more than 1 hour.

3. ORGANISATION

The Head of Commercial Services is responsible for specifying the level of winter service required based on approval from the Council. The Senior Manager (Network) is responsible for implementing this service.

A duty Winter Controller and Winter Supervisor will be appointed by the Senior Manager (Network) for the whole of the winter period covered by these procedures (mid-October to early April)

4. NORTH AYRSHIRE COUNCIL RESOURCES (ROADS)

4.1 General

Following approval from the Council, it is the responsibility of the Head of Commercial Services to define the level of service to be provided within their sphere of operations and to issue appropriate instructions to the Senior Manager (Network) to provide the necessary labour and plant for winter operations. This level of service will be based on the national Code of Practice for Well Maintained Highways (see Appendix B).

The level of winter treatment is established utilizing the weather forecasts provided by MeteoGroup UK Limited in accordance with the winter treatment matrix (Appendix C).

The Senior Manager (Network) shall thereafter be responsible for advising the Head of Service of any matters which may affect his ability to deal with adverse weather conditions e.g. labour disputes, extensive plant breakdowns etc.

Labour resources from Commercial Services (Roads) will be provided for the Winter and Weather Emergencies Service. The stand-by period will be 25th October 2018 until 11th April 2019. This period may be extended beyond the given dates if conditions warrant such action. These arrangements include home stand-by which is activated by the designated Winter Supervisor when instructed by the Winter Controller or as the result of hazardous road conditions being reported.

4.2 Labour

A proportion of the roads labour force will be on stand-by for winter service operations out of normal working hours, with the remainder on call out as necessary. This allows evening and early morning precautionary salting to be carried out on our priority carriageway network to treat dangerous roads before the morning rush hour.

In determining the labour resources required for the winter service, cognisance is taken of the key objective to treat all priority routes before the commencement of the morning peak period.

4.3 Vehicle Plant and Equipment

Prior to commencement of winter service operations, the Senior Manager (Network) will ensure that all equipment for salting roads and snow clearing is in working order and, where appropriate, that ancillary items can be fitted to vehicles without difficulty, e.g. ploughs set up on blocks to facilitate assembly. The above procedure should also be applied to vehicles and plant available under contract for the winter service.

The Senior Manager (Network) will ensure that all vehicles engaged in the winter service are equipped with radios or other appropriate communication devices to allow contact to be maintained between the depot and operators. Superintendents have mobile telephones. There is also vehicle tracking system fitted and operational in all vehicles to reduce the risk associated with gritting operations.

A summary of labour, vehicles, plant, and equipment available for the winter service work is detailed in Appendix D.

Once per year the Senior Manager (Network), will organise a trial closure of the flood gates and erection of the de-mountable barriers at the Largs and Saltcoats flood protection controls. This is to ensure that the gates and barriers remain in full working order and that all staff are familiar with the process.

4.4 Salt

Salt is purchased through a Scotland Excel annual purchase contract. Mainland salt deliveries are stored in the salt barn within the Goldcraigs Depot. Salt on Arran is stored in the open at the Roads Depot in Market Road, Brodick.

During the season, the Senior Manager (Network) will arrange for a weekly check to be made on the amount of salt used and for stocks to be augmented as necessary. There is a procedure in place at the depot to strictly control salt distribution. All vehicles are tagged and must cross the weighbridge to accurately record salt usage. This includes salt distributed to Streetscene and contractors assisting with winter service delivery.

Small quantities of salt are available for issue free of charge to the public, subject to residents supplying a suitable container. Details of locations of community grit bins where small quantities of salt are available are given in Appendix E

The planned salt stock level at commencement of winter is given in Appendix F.

In the event of prolonged severe weather the Council has a salt resilience plan (Appendix G), which will be implemented if conditions require.

5. OTHER RESOURCES

During adverse weather conditions, the Senior Manager (Network), (after consultation with the Head of Commercial Services), shall, if necessary, augment his resources by the use of personnel from Streetscene and external contractors at rates agreed prior to engagement through a framework contract. The Head of Commercial Services should be advised, as soon as practicable, of external resources engaged as a result of decisions made outwith normal working hours.

The Senior Manager (Network) will provide a supply of salt to Streetscene and external contractors where appropriate to permit the treatment of agreed footways/footpaths. This will be managed through a salt management system based at Goldcraigs Roads Depot.

6. WEATHER FORECASTING

North Ayrshire Council, through a collaborative contract led by South Lanarkshire Council, has appointed MeteoGroup, as their weather forecast provider. During the winter service period MeteoGroup will provide a weather forecasting service and monitor road and weather conditions.

The forecasters receive, monitor and interpret, climatic, ice prediction and weather radar information on a continuous basis and provide detailed weather forecasts on a daily basis during the whole winter period.

SEPA operate a coastal flood warning system for the Firth of Clyde. If storm surges and coastal flooding are predicted, SEPA provide advance warning to the Council by e-mail and also through their Floodline service which is available on their website or by phone. This service is available all year round.

7. DECISION MAKING

The Senior Manager (Network) will appoint suitably trained and experienced personnel as Winter Controllers.

During the winter season the Winter Controller will receive the weather forecast around 12.00 hours and decide on the treatment to be carried out. The Winter Controller will check the treatment decision of neighbouring authorities for consistency and reconsider if necessary. The weather forecast provider will provide an evening forecast around 19.00 hours and if this update indicates any change in the forecast the Winter Controller will amend the decision accordingly and advise the Winter Supervisor.

For out of office hours, Saturdays, Sundays and public holidays the Senior Manager (Network) shall provide the weather forecast provider with contact telephone numbers of the on duty Winter Controller. If the forecast conditions change from good to adverse at any time, then the weather forecast provider will phone the Winter Controller either at work or at home as appropriate. Thereafter, it is the responsibility of the Winter Controller to take action including the calling out of stand-by squads to undertake salting/snow clearing.

Winter Controllers have the facility at any time to contact the weather forecast provider for advice or clarification of forecasts. These arrangements will be in place from 11 October 2018 until 11 April 2019 and these dates can be extended if required.

The decision making process is illustrated in Appendices B & C.

The Head of Commercial Services will appoint suitably trained staff and experienced personnel to manage the coastal flood prevention schemes at Largs and Saltcoats. During the winter season, this will be the Winter Controller.

8. ICE PREDICTION

In addition to the weather forecast information, the Council has available further information from sensors which have been installed at the locations listed below:-

- A78 Ardrossan
- A737 Highfield
- A760 Catburn
- A735 Near Dunlop
- B880 Arran, summit of The String

The sensors provide current details of road and air temperatures and indicate the presence of moisture, thereby identifying locations that icing has occurred or where there is a risk that icing will occur.

By utilising the data from these sensors the weather forecast provider is able to supplement their forecast by producing site specific forecasts. The above information is available to the Winter Controller via computer link 24 hours a day throughout the winter period.

9. ROAD CONDITION REPORTS

During periods of adverse weather, the Senior Manager (Network) shall receive reports on road conditions from the Winter Supervisor by 09.45 hours. These reports should be updated as necessary depending on changing circumstances.

10. COMMUNICATIONS

The Head of Commercial Services or nominated senior manager will deal with statements to the Press, Radio and Television regarding road conditions throughout the area. The Council's Communication team will assist, and may take the lead role depending on the nature of any significant event.

General advice and information, along with timeous service updates, will be placed on the Council's website.

The Head of Commercial Services (or nominated senior officer) will ensure that all staff involved in communication with members of the public are fully briefed with consistent and accurate information.

A protocol has been agreed by the West of Scotland Regional Resilience Partnership (WoS RRP) and Ayrshire Civil Contingencies Team (ACCT) for the transfer of information in relation to Winter and Weather Emergencies.

The Council's daily winter decisions are available for the public and can be accessed via the Council's website. Any winter and weather emergencies can be reported to North Ayrshire Council and the Trunk Road Operators using the contact information contained within Appendix H.

The distribution list for winter weather emergencies can be found under Appendix I.

11. ROAD CLOSURES

Where it is considered that a road is rendered unsafe due to adverse winter conditions then the Police or persons acting on behalf of the Chief Constable will arrange to have the road closed and advise the on-duty Winter Supervisor as soon as possible of their actions. The Winter Supervisor will advise the Winter Controller/Senior Manager (Network) of any road closures. Appropriate measures will also be taken to re-direct traffic and to ensure that the necessary signs are put in place. When the road affected is a through route the adjoining Councils will be kept informed. Police will advise the other emergency services (Ambulance & Fire) of the closures.

Prior to signing diversionary routes, the capacity of the roads and the headroom and weight restrictions of structures should be checked with the Winter Controller to ensure that they are adequate (see Appendix J).

12. LIAISON WITH THE POLICE

Commercial Services (Roads) will ensure close liaison with the Police, particularly during periods of severe weather.

Where practicable, the Police will be informed in advance of North Ayrshire Council's proposed operations. Similarly arrangements have been made for exchanging information on proposed actions with neighbouring authorities and the trunk road operating company.

Where necessary the service will request appropriate assistance from the Police when moving equipment, arranging road closures and dealing with abandoned vehicles.

Reports from the Police regarding dangerous road conditions should be acted upon by the Winter Supervisor as soon as practicable, having regard to priorities in this document and the conditions pertaining throughout the area.

13. AYRSHIRE LOCAL RESILIENCE PARTNERSHIP (ALRP) DISRUPTIVE WEATHER RESPONSE ARRANGEMENTS

There have been a number of occasions when severe weather including high winds, heavy rain and snow has caused disruption to communities and services in Ayrshire. Arrangements are in place where partner organisations can trigger the ALRP Disruptive Weather Response Arrangements. The purpose of these arrangements are:-

- To protect human life, property and the environment
- To implement a professional and co-ordinated multi-agency response to the incident in conjunction with our communities
- To maintain wider public confidence in the multi-agency response and minimise general community and infrastructure impact
- To ensuring that all possible measures are in place to protect vulnerable or displaced members of the community
- To supporting effective public communication in regard to the incident along the principles of warning and informing
- To ensure awareness of the potential impact of events out with Ayrshire on the local multi-agency response
- To ensuring that organisational and partnership learning points are captured to ensure a continuing focus on safeguarding the public

14. CROSS BOUNDARY ARRANGEMENTS

Because the Council boundaries do not always coincide with convenient turning points at the end of gritting routes, arrangements have been drawn up with all adjacent authorities for the gritting routes to be continued short distances to appropriate turning points. See (Appendix K).

15. VEHICLE ROUTES

From local knowledge and the resources available, routes are drawn up by the Roads Service on the basis of the priorities listed in Section 2. However, in order to minimise unproductive mileage, some roads in a lower category may be treated out of sequence. This may also occur when conditions vary throughout the area.

A complete set of route cards will be kept in the Commercial Services (Roads) offices, with a duplicate set being held in Goldcraigs Depot.

Treatment of precautionary carriageway salting routes should be completed within three hours of planned start time under routine conditions. When the Winter Controller instructs immediate winter service operations, the response time to start treatment should be within one hour.

It should be noted that gritting routes are either at or close to capacity and it is unlikely that any additions to routes could be considered without additional finance and human resources.

16. PRECAUTIONARY SALTING

On receipt, within normal working hours, of a forecast from the weather forecast provider warning of frost, freezing or snow conditions, the Winter Controller in consultation with the Senior Manager (Network), shall give consideration to precautionary salting of main roads.

Where such a warning is received out with normal working hours, the Winter Controller has delegated authority to activate call-out procedures as indicated in Section 7.

Extensive and accurate records of weather forecasts, winter treatment decisions and actions taken will be kept to demonstrate our compliance to our Winter and Weather Emergencies Plan.

17. GRIT BINS

There are approximately 500 grit bins distributed across North Ayrshire. These are located at areas of particular difficulty e.g. dangerous bends, steep gradients etc. The policy and procedures for siting of grit bins, and requests for additional bins is shown in Appendix L.

Grit bins will be refilled prior to the start of winter and as considered necessary during the winter season and following periods of severe weather when resources are available.

The locations of Community Grit Bins are listed in Appendix E.

18. LARGS AND SALTCOATS FLOOD PROTECTION SCHEMES

On receipt of a severe weather warning predicting a combination of strong winds, high tides or tidal surges the Winter Controller will, when necessary, instruct the closure of the flood gates on the promenade at Largs and/or the erection of the flood barriers at the Largs Pier and/or Saltcoats promenade.

19. SANDBAG PROCEDURES

The deployment of sandbags to prevent or contain floodwaters can be an effective way of mitigating the effect of a flood, however the lead time for filling and deployment can be lengthy, as a large number of bags cannot be filled in advance due to storage problems. Therefore, an early decision must be taken to sandbag, to avoid a subsequent waste of time and effort. The deployment of sandbags will be decided with regard to the following priorities:

1. To prevent loss of life or serious injury
2. Maintenance of access for the emergency services
3. Protection of vital facilities within the community
4. Protection of transportation routes
5. Protection of NAC property
6. Protection of private dwelling houses

The decision to deploy sandbags will be made by the Winter Controller / Supervisor or appropriate officers in Building Services, Cleansing or the Island Officer on Arran in accordance with the Services' callout/emergency procedures.

Notes:

1. Sandbags will not normally be deployed to protect commercial property;
2. Appropriate stocks of empty and filled sandbags will be held by the Services mentioned above, based on previous usage and experience.

The above procedure mainly relates to tidal, fluvial and watercourse flooding. Where flooding occurs as a result of a blocked, damaged or ineffective Council owned drainage systems, sandbags will be deployed as required to mitigate the effects of flooding (and reduce the likelihood of claims against the Council) including the protection of commercial property.

***Priority 1 Carriageway Gritting Routes
Policy & Procedure***

Priority 1 Gritting Routes can be viewed on the Councils website using the following address:-

<http://www.north-ayrshire.gov.uk/roads-and-travel/winter-gritting.aspx>

LEVEL OF SERVICE

Road Surface Temperature	Precipitation	Predicted Road Conditions		
		Wet	Wet Patches	Dry
Temperature Forecast between +1.5°C And +0.5°C	No Rain No Hoar Frost No Fog	High Route Patrols		No action likely
Temperature Forecast below +0.5°C	No Rain No Hoar Frost No Fog	(Priority 1 Routes)		
	Expected Hoar Frost Expected Fog	Salt before frost		
	Expected rain BEFORE freezing	(Priority 1 Routes) Salt after rain stops		
	Expected rain DURING freezing	(Priority 1 Routes) Salt before frost, as required during rain and after rain stops		
	Possible rain Possible hoar frost Possible fog	(Priority 1 Routes) Salt before frost		Monitor weather conditions
Expected Snow Fall		(Priority 1 Routes and footways) Salt before snow fall		
<p>The decision to undertake precautionary treatments should be adjusted, where appropriate, to take account of residual salt.</p> <p>All decisions should be evidence based, recorded and continuously monitored and reviewed.</p>				

DECISION MAKING

WINTER TREATMENT SPREAD RATE MATRIX SCOTS WINTER SERVICE SUBGROUP ADVICE - AUGUST 2015

Salt Type	Precautionary Treatment for frost / ice	Variation of Well Maintained Highways Appendix H - September 2013					
		Column C	Column D	Column G	Column H	Column K	Column L
		Poor Cover Medium Traffic Normal Loss	Poor Cover Medium Traffic High Loss	Fair Cover Medium Traffic Normal Loss	Fair Cover Medium Traffic High Loss	Good Cover Medium Traffic Normal Loss	Good Cover Medium Traffic High Loss
Dry Salt	RST at or above -2 Degrees and dry or damp road conditions (Table H9 of Code - where the road surface is dry no action is needed even when conditions are below zero)	10 (8)	10 (8)	10 (8)	10 (8)	10 (8)	10 (8)
Pre-wet Salt		10 (8)	10 (8)	10 (8)	10 (8)	10 (8)	10 (8)
Treated Salt		10 (7)	10 (7)	10 (7)	10 (7)	10 (7)	10 (7)
Dry Salt	RST at or above -2 Degrees and wet road conditions	15 (13)	20 (16)	10 or 15 (11)	15 (13)	10 (8)	10
Pre-wet Salt		15 (12)	15 (14)	10 (10)	15 (12)	10 (8)	10 (9)
Treated Salt		10 (10)	10 or 15 (11)	10 (8)	10 (10)	10 (7)	10 (7)
Dry Salt	RST below -2 deg C and above -5 deg C and damp road conditions	15 or 20 (17)	20	10 or 15 (14)	20 (17)	10 or 15 (11)	15 (13)
Pre-wet Salt		15 or 20 (16)	20 (18)	15 (14)	15 (16)	15 (11)	15 (12)
Treated Salt		15 (12)	15 (14)	10 or 15 (11)	15 (12)	10 (8)	10 (10)
Dry Salt	RST below -2 deg C and above -5 deg C and wet road conditions	1 x 20 then monitor & treat as required (2x17)	1 x 20 then monitor & treat as required (2x20)	1 x 20 then monitor & treat as required (2x28)	1 x 20 then monitor & treat as required (2x17)	20(20)	1 x 20 then monitor & treat as required (25)
Pre-wet Salt		1 x 20 then monitor & treat as required (2x16)	1 x 20 then monitor & treat as required (2x18)	1 x 20 then monitor & treat as required (27)	1 x 20 then monitor & treat as required (31)	1 x 20 then monitor & treat as required (21)	1 x 20 then monitor & treat as required (24)
Treated Salt		1 x 20 then monitor & treat as required (24)	1 x 20 then monitor & treat as required (28)	1 x 20 then monitor & treat as required (21)	1 x 20 then monitor & treat as required (24)	1 x 20 then monitor & treat as required (16)	1 x 20 then monitor & treat as required (19)
Dry Salt	RST at or below -5 deg C and above -10 deg C and damp road conditions	1 x 20 then monitor & treat as required (2x16)	1 x 20 then monitor & treat as required (2x19)	1 x 20 then monitor & treat as required (27)	1 x 20 then monitor & treat as required (2x16)	20	1 x 20 then monitor & treat as required (24)
Pre-wet Salt		1 x 20 then monitor & treat as required (2x16)	1 x 20 then monitor & treat as required (2x18)	1 x 20 then monitor & treat as required (27)	1 x 20 then monitor & treat as required (31)	1 x 20 then monitor & treat as required (21)	1 x 20 then monitor & treat as required (24)
Treated Salt		1 x 20 then monitor & treat as required (23)	1 x 20 then monitor & treat as required (27)	1 x 20 then monitor & treat as required (20)	1 x 20 then monitor & treat as required (23)	1 x 20 then monitor & treat as required (15)	1 x 20 then monitor & treat as required (18)
Dry Salt	RST below -5 deg C and above -10 deg C and wet road conditions	1 x 20 then monitor & treat as required (2x32)	1 x 20 then monitor & treat as required (2x39)	1 x 20 then monitor & treat as required (2x27)	1 x 20 then monitor & treat as required (2x32)	1 x 20 then monitor & treat as required (2x20)	1 x 20 then monitor & treat as required (2x24)
Pre-wet Salt		1 x 20* then monitor & treat as required (2x31)	1 x 20 then monitor & treat as required (2x36)	1 x 20 then monitor & treat as required (2x27)	1 x 20 then monitor & treat as required (2x31)	1 x 20 then monitor & treat as required (2x21)	1 x 20 then monitor & treat as required (2x24)
Treated Salt		1 x 20 then monitor & treat as required (2x23)	1 x 20 then monitor & treat as required (2x27)	1 x 20 then monitor & treat as required (2x20)	1 x 20 then monitor & treat as required (2x23)	1 x 20 then monitor & treat as required (30)	1 x 20 then monitor & treat as required (2x18)

() = Appendix H rates in brackets

Please see H10.25 regarding effectiveness of sodium chloride at low temperatures.

Salt Type	Precautionary Treatments Before Snow or Freezing rain		
		Light or Medium Traffic	Heavy Traffic
Dry Salt	Light Snow Forecast	20g/m ²	20g/m ²
Pre-wet Salt		20g/m ²	20g/m ²
Treated Salt		15g/m ²	15g/m ²
Dry Salt	Moderate/Heavy Snow Forecast	20g/m ²	40g/m ²
Pre-wet Salt		20g/m ²	40g/m ²
Treated Salt		15g/m ²	30g/m ²
Dry Salt	Freezing rain Forecast	1 x20g/m ² then monitor	
Pre-wet Salt		1 x20g/m ² then monitor	
Treated Salt		1 x15g/m ² then monitor	

Note:

- Rate of spread for precautionary treatments may be adjusted to take account of local variations along the routes such as residual salt, temperature variations, surface moisture (air or road surface) road alignment and traffic density.
- All decisions should be evidence based, recorded and require continuous monitoring and review.
- Ice refers to all ice on the road surface, including black ice.

- The level of service generally complies with the recommendations laid down in “Well Maintained Highways” the UK Code of Practice for Highway Management and is summarised above.
- Appendix H of “Well Maintained Highways” which covers winter maintenance operations and treatments underwent a complete revision in November 2013. The SCOTS winter Subgroup has been in consultation with the National Winter Service Research Group (NWSRG) concerning the implementation of Appendix H of Well Maintained Highways. The Subgroup made a number of suggestions to implement Appendix H that have been commented on by the NWSRG. Having considered the comments from the NWSRG on the review of Appendix H the SCOTS Winter Service Subgroup provided advice that Scottish Local Roads Authorities adopt variations to Appendix H of Well Maintained Highways that North Ayrshire Council are following.

SUMMARY OF AVAILABLE LABOUR & PLANT

TYPE OF PLANT	GOLDCRAIGS	ARRAN	OTHER NAC	TOTAL
Gritters				
18 Tonne Uni-body	11	3		14
7.5 Tonne Uni-body	2	0		2
Trailer Gritter	0	0	1	1
Footway Gritter	1	1	7	9
Lorries				
18 Tonne Uni-body	11	3		14
26 Tonne Multilift	1	0		1
7.5 Tonne Uni-body	2	0		2
Loading Shovel	1	0		1
JCB 2CX	0	1		1
Telehandler	0	1		1
Ploughs				
Fixed V	3	2		5
Small Blade	3	0		3
Large Blade	13	3		16
LABOUR				
Drivers	24	6	7	37
Operatives	11	3	36	50
Other Equipment				
Muck Truck + plough (For footways)			2	2

Note

When necessary labour, vehicles, plant and equipment from other Council Departments, farmers, plant hirers and contractors will be used to supplement above resources.

This also applies for non-winter related emergency responses.

COMMUNITY GRIT BINS

Small quantities of salt are available for issue free of charge to members of the public, subject to their supplying a suitable container from the Community Grit Bins sited at the following locations.

Town	Location
Ardrossan	Carpark, North Crescent Road.
Beith	Community Centre, Kings Road.
Brodick	Household Waste Recycling Centre
Dalry	Car Park, Kirk Close.
Fairlie	Car Park, Pier Road.
Irvine	Bartonholm Civic Amenity Site.
Kilbirnie	Cleansing Depot, Paddockholm Road.
Kilwinning	Byrehill Place (off Pennyburn Road)
Lamlash	Council Office
Largs	Cleansing Depot, Alexander Avenue.
Millport	Kepple Pier
Saltcoats	Cleansing Depot, Mid Dykes Road.
Skelmorlie	Toward View (opposite Fire Station).
Stevenston	Car Park, Garnock Road.
West Kilbride	Community Centre, Corse Street.

SUMMARY OF AVAILABLE MATERIALS

The following salt, grit and sand stocks will be in place at commencement of winter:-

DEPOT	TONNAGE SALT	TONNAGE SAND (for Sandbags)
Goldcraigs (salt barn)	7000	100
Arran	1600	300
Cumbræ	20	(500 filled sandbags)

Approximately 4000 sandbags are located at Goldcraigs, and 500 on Arran.

Salt Resilience Plan (Mainland)

Level 1 (Green) Service – Stock Levels 2500 Tonnes and above

- Service levels as detailed in NAC Winter and Weather Emergencies Plan.
- Typical daily salt usage (snow conditions) 470T – **resilience 5 days**
or
- Typical daily salt usage (frost & ice only) 235T – **resilience 10 days**

Level 2 (Amber 1) Service – Stock Levels 1800 Tonnes – 2500Tonnes

- Only Priority 1 carriageway routes treated with pure salt, remaining priority carriageway routes reduced to half the normal spread rate or salt/grit mix at 50/50
- All footway routes reduced to salt/sand mix at 50/50
- Grit bins replenished with salt/sand mix at 50/50.
- Typical daily salt usage (snow conditions) 330T – **resilience 2 days.**
or
- Typical daily salt usage (frost & ice only) 165T – **resilience 4 days**

Level 3 (Amber 2) Service – Stock Levels 1000 Tonnes – 1800 Tonnes

- All carriageway routes reduced to half the normal spread rate or salt/grit mix at 50/50
- Priority 1 footway routes treated with salt/sand mix at 50/50
- Remaining footway routes treated with sand/grit mix at 50/50
- Grit bins replenished with sand/grit mix at 50/50
- Typical daily salt usage (snow conditions) 150T – **resilience 5 days.**
or
- Typical daily salt usage (frost & ice only) 75T – **resilience 10 days**

Level 4 (Red) Service – Stock Levels less than 1000Tonnes

- Priority 1 carriageways reduced to half the normal spread rate or salt/grit mix at 50/50
- Treat remaining carriageway routes with sand/grit mix at 50/50
- All footway routes treated with sand/grit mix at 50/50
- Grit bins replenished with sand/grit mix.
- Typical daily salt usage (snow conditions) 100T – **resilience 10 days**
or
- Typical daily salt usage (frost & ice only) 50T – **resilience 20 days**

Assuming 4,500 tonnes in stock at start of winter our total resilience would be either

- **Total Resilience during periods of heavy snow - 22 days**
or
Total Resilience during periods of frost & ice conditions - 44 days

Salt Resilience Plan (Arran)

Level 1 (Green) Service – Stock Levels 1000 Tonnes and above

- Service levels as detailed in NAC Winter and Weather Emergencies Plan.
- Typical daily salt usage (snow conditions) 52T – **resilience 10 days**
or
- Typical daily salt usage (frost & ice only) 26T – **resilience 20 days**

Level 2 (Amber 1) Service – Stock Levels 550 Tonnes – 1000Tonnes

- Only Priority 1 carriageway routes treated with pure salt, remaining priority carriageway routes reduced to half the normal spread rate or salt/grit mix at 50/50
- All footway routes reduced to salt/sand mix at 50/50
- Grit bins replenished with salt/sand mix at 50/50.
- Typical daily salt usage (snow conditions) 44T – **resilience 10 days.**
or
- Typical daily salt usage (frost & ice only) 22T – **resilience 20 days**

Level 3 (Amber 2) Service – Stock Levels 250 Tonnes – 550 Tonnes

- All carriageway routes reduced to half the normal spread rate or salt/grit mix at 50/50
- Priority 1 footway routes treated with salt/sand mix at 50/50
- Remaining footway routes treated with sand/grit mix at 50/50
- Grit bins replenished with salt/sand mix at 50/50
- Typical daily salt usage (snow conditions) 30T – **resilience 10 days.**
or
- Typical daily salt usage (frost & ice only) 15T – **resilience 20 days**

Level 4 (Red) Service – Stock Levels less than 250 Tonnes

- Priority 1 carriageways reduced to half the normal spread rate or salt/grit mix at 50/50
- Treat remaining carriageway routes with sand/grit mix at 50/50
- All footway routes treated with sand/grit mix at 50/50
- Grit bins replenished with sand/grit mix.
- Typical daily salt usage (snow conditions) 20T – **resilience 12 days**
or
- Typical daily salt usage (frost & ice only) 10T – **resilience 25 days**

Assuming 1,500 tonnes in stock at start of winter our total resilience would be either

- **Total Resilience during periods of heavy snow - 42 days**
or
Total Resilience during periods of frost & ice conditions - 85 days

NORTH AYRSHIRE COUNCIL

CONTACT ADDRESS & TELEPHONE NUMBERS

During Normal Working Hours	Outwith Normal Working Hours
<p style="text-align: center;">MAINLAND</p> <p>Commercial Services (Roads) Cunninghame House IRVINE KA12 8EE</p> <p>Tel: 01294-310000</p>	<p style="text-align: center;">NORTH AYRSHIRE COUNCIL CALL CENTRE</p> <p style="text-align: center;">Road & Lighting Faults</p> <p style="text-align: center;">24 hours, 7 days per week</p> <p style="text-align: center;">Tel: 01294 310000</p>
<p style="text-align: center;">ARRAN</p> <p>Arran Local Office Lamlash Isle of Arran KA27 8JY</p> <p>Tel: 01770-600338 Fax: 01770-600028</p>	
<p style="text-align: center;">TRUNK ROADS A78, A737 & A738</p> <p>Scotland TranServ Network Control Centre 150 Polmadie Road Glasgow G5 OHD</p> <p>Tel 0141 218 3999 Email southwestcontrol@scotlandtranserv.co.uk</p>	

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Traffic Management, Ayr	1
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Inverclyde Council – Head of Transportation & Roads Service	1
Contact Centre, Building Services, Stevenston	1
Contact Centre, Bridgegate House, Irvine	1

BRIDGES WITH WEIGHT OR HEIGHT RESTRICTIONS

HEIGHT RESTRICTIONS

Bridge Location	Grid Reference	Signed Height	
		Metric	Imperial
A737/110 : Dalry, Railway Bridge	229960 649702	3.8	12' – 6"
B706/40 : Barrmill	236834 651392	4.0	13' – 0"
B7047/10 : Meadowfoot Road, West Kilbride	220791 647032	4.7	15' – 3"
C6/10 : West Balgray	235333 642491	3.8	12' – 9"
C26/10 : South Kilruskin	220541 650473	4.4	14' – 6"
C26/20 : North Kilruskin	220423 650868	5.1	16' – 6"
U67/10 : Dubbs	228508 642006	3.0	9' – 9"
U67(A78 280) : Todhill (Dubbs Road, under A78, Kilwinning Bypass)	229175 642250	4.0	13' – 0"
U67/30 : Nethermains	230059 642199	3.6	12' – 0"
C56/30 : Moor Road	220639 652980	4.5	15' – 0"
C67/20 : Tandelhill	238174 651683	4.3	14' – 3"
C99/20 : Cockenzie	230694 646241	3.0	9' – 9"
Unc.TG/230 : Garnock View, Glengarnock	231875 653191	3.8	12' – 6"
Unc.TI/70 : Old Church Street, Irvine	213571 638800	4.1	13' – 3"

WEIGHT RESTRICTIONS

Bridge Location	Grid Reference	Signed Weight
B781/30 : West Kilbride, Dalry Road	221015 649062	7.5T
C129/20 : Floors, north of Kilmaurs	240866 641921	17T
C99/30 : Dusk Bridge, near Dalry	230599 646882	7.5T
Unc.TL/30 : Largs, May Street	220711 658602	7.5T
U16/10 : Dalgarn Mill Bridge, north of Kilwinning, (formerly Unc.NC/30)	229571 645847	26T
U23 : Fairliecrevoch Bridge, Perceton, Irvine	236065 642011	3T
Unc.NT/10 : Barrmill	236472 650997	3T
U54/30 : Sevenacres Mill Bridge, Kilwinning	233123 643810	18T

ARRANGEMENTS WITH OTHER AUTHORITIES

ROADS TO BE TREATED BY ADJACENT AUTHORITIES	ROADS TO BE TREATED BY NORTH AYRSHIRE COUNCIL
<p>Ayrshire Roads Alliance (East Ayrshire)</p> <p>A71 – from boundary westwards to Corsehill roundabout.</p> <p>A735 – that section within North Ayrshire boundary.</p> <p>B769 – from boundary south westwards to Chapelton junction.</p> <p>C129 – that section within North Ayrshire boundary.</p> <p>C20 – that section within North Ayrshire boundary.</p> <p>B706 - from boundary to A736</p> <p>C117 From Chapelton Bridge to Wheatrig Bridge</p>	<p>South Ayrshire</p> <p>U107 from the South Ayrshire Council boundary at the railway bridge to A759 Auchengate Interchange.</p> <hr/> <p>East Ayrshire</p> <p>A736 – from Caldwell Bridge southwards to Lugton.</p> <p>A736 – from B778 junction south eastwards to Torranyard.</p> <p>C24 - from Greenhill Terrace, Knockentiber to boundary at Plann Bridge.</p> <p>C126 From Montgreenan Bridge to North Lodge.</p> <p>Knockentiber Road from boundary near Springside to junction with C24</p>
<p>Roads to be Treated by Ayrshire Roads Alliance (South Ayrshire)</p> <p>B730 from the North Ayrshire Council boundary at the railway bridge south of Drybridge to junction Shewalton Road, Drybridge.</p>	<p>Renfrewshire Council</p> <p>A760 – from boundary to Kerse Road junction,</p> <p>Kerse Road – from boundary to A760 junction</p>

Note: There are no cross boundary arrangements with East Renfrewshire Council.

GRIT BIN POLICY & PROCEDURE

1. North Ayrshire Council shall provide grit bins for self-help by members of the public. These shall be sited locally in accordance with this policy.
2. Grit bins shall only be located where the following criteria are met: -
 - The location is not on a precautionary carriageway route;
 - The gradient is greater than 1 in 10, or at a junction with a known history of accidents;
 - The location shall not obstruct the passage of pedestrians, a minimum of 1.5m clearance on the footway is required;
 - The location shall not obstruct sight lines;
 - The location is not within 200m of another grit bin location;
 - The location is within an urban area;
 - The location is within the boundary of the public road. Infrastructure and Design will not provide grit bins in private areas or car parks for internal use by either the Council or any other public or private property such as schools, parks, hospitals, old people's homes, etc. unless a service level agreement is in place.
3. Grit bins will only be located where they can be filled from a lorry. The grit bins shall be replenished at the start of the winter period and on a monthly cycle during the winter period, as resources permit.
4. Grit bins will generally be left in place during the summer months, unless there is a history of vandalism at a particular location.
5. The location of grit bins will be recorded in an electronic database, which will be made available on the North Ayrshire Council website.
6. Only written requests on the Council's Grit Bin Application Form will be considered, these are available from the Head of Commercial Services, Cunninghame House, Irvine, KA12 8EE, and on the Council's website.
7. A request will not be accepted unless a location to site the grit bin has been agreed. Therefore, even if the criterion for locating a grit bin is met, a grit bin will not be provided if the adjacent residents cannot agree a position. The signed agreement of adjacent residents must be included on the submitted application form, otherwise the application will not be considered.
8. Grit Bin Application forms are available on the Council's website at <http://www.north-ayrshire.gov.uk/roads-and-travel/winter-gritting.aspx>