

The background of the slide features a large, faint, light blue watermark of the City of Vancouver coat of arms. The crest includes a crown with four maple leaves, a shield divided into four quadrants (top-left: a ship, top-right: a stag's head, bottom-left: a ship, bottom-right: an eagle), and a banner at the bottom with the motto "ANNE FOR A".

Agenda Item 14

Winter Service Plan – Adopted Roads and Footways

FALKIRK COUNCIL

Title: Winter Service Plan – Adopted Roads and Footways
Meeting: Executive
Date: 18 June 2019
Author: Director of Development Services

1 Purpose of Report

- 1.1 This report informs Members of updates made to the Winter Service Plan for adopted roads and footways. The plan takes account of network resilience including the treatment of facilities for road users, public transport users, walkers and cyclists, emergency services, key public services, and other local circumstances.

2 Recommendation

2.1 Members are requested to:-

Approve and adopt a risk based approach to the winter treatment of carriageways and footways, in line with the guidance provided in the Code of Practice for Well Managed Highway Infrastructure (the Code), and the statutory duty, as represented in the draft winter service plan attached to this report at Appendix A.

3 Background

- 3.1 Falkirk Council, as Roads Authority, is obliged 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 vehicles and pedestrian traffic throughout the Council maintained road and footway networks.
- 3.2 In discharging this statutory duty, the Roads Authority follows the guidance within nationally adopted codes of practice, the most recent of which is the Code of Practice for Well Managed Highway Infrastructure (the Code), published by the UK Roads Liaison Group, and supported, endorsed and recommended by the Department for Transport and highways bodies across the UK, including the Society of Chief Officers of Transportation in Scotland (SCOTS). It is recognised that compliance with the guidance within the Code will be considered to be a relevant consideration, should the Council be subject to action, legal or otherwise, seeking to establish that the Council has not complied with its statutory duty.
- 3.3 The current Winter Service Plan was approved by the Environment & Community Safety Committee on 16 August 2011 and requires to be updated to ensure that it takes account of the recommendation within the Code for

authorities to plan for a more resilient winter service, and to ensure that we continue to provide a service that is right for our customers whilst enabling communities to self-help.

4 Considerations - Changes to Winter Service Plan

- 4.1 The winter service the Council provides deals with regular, frequent and reasonably predictable winter occurrences like low temperatures, ice and snow as well as with exceptional events. In line with our statutory duty, carriageway and footway treatment routes have been reviewed to take account of the importance of traffic routes, with Priority 1 routes concentrating on the resilience of the overall network and will include elements of our strategic, main and secondary distributor roads for carriageways, and prestige, primary and secondary routes for footways. Priority 1 routes also take account of the needs and expectations of our customers. A copy of the draft revised plan is attached as Appendix A. Revised gritting routes will be available to view on the Council's web site if approved.
- 4.2 Grit bin provision has been reviewed to promote community self-help. An additional 4 community bins per square kilometre will be positioned at key locations in low lying areas across the Council area, giving an overall provision of 8 (maximum) per square kilometre. In total, an additional 70 large community bins will be in place prior to the onset of winter.
- 4.3 Care has been taken to ensure that our communities' needs are met and that all communities receive a consistent and reasonable level of treatment, in line with our statutory duty.
- 4.4 In addition to recommendations made, consideration has also been given to the local geographic knowledge of Elected Members and, following briefing sessions undertaken in January 2019, relevant issues raised by them during these sessions have been taken on board and incorporated in to the plan where appropriate. Feedback on these changes has been provided to those Elected Members who offered comment.

5.0 Implications

Financial

- 5.1 Whilst acknowledging that the costs associated with Winter Service Plan are weather dependant, the review of carriageway and footway treatment priorities in line with the guidance within the Code, and the promotion of community self-help could lead to reduced costs on a like for like basis.

Resources

- 5.2 There will be no changes required to staff resources

Legal

- 5.3 The risk based approach to winter resilience is reasonable and meets the statutory duty outlined in 3.1, and by ensuring that the Roads Authority is adopting good practice as defined within the Code, the Council can demonstrate and defend its compliance with the statutory duty.

Risk

- 5.4 The approach outlined within the Winter Service Plan addresses the national guidance given within the Code to mitigate risk to the travelling public during winter weather conditions. Treatment levels have been set to address both the likelihood and the impact of any weather related risk whilst travelling on the public road network.

Equalities

- 5.5 Consideration has been given to social inclusion, particularly to improving accessibility for people with disabilities, ensuring that high amenity areas are prioritised for clearance of snow and treatment for ice.

Sustainability/Environmental Impact

- 5.6 Low temperatures and the formation of ice can cause serious damage to the fabric of carriageways, footways and cycle routes and accelerated damage of the network overall. Effective winter service can contribute to a reduction in whole life costs and minimise damage to the environment. Rock salt is the prime material for dealing with ice and snow on roads and footways but can have environmental consequences, and can adversely affect vegetation, pollute watercourses and leave a residue on footways. However, used responsibly it can have minimal environmental impact, and in the interest of sustainability and the environment, salt spread rate recommendations will be adhered to, to deal with prevailing conditions.

6.0 Conclusions

- 6.1 The recommendations from the Code enable Falkirk Council to implement a risk based approach to the treatment of snow and ice. It is anticipated that this approach will:
- Minimise the exposure of danger or serious inconvenience to users of the network and the wider community during snow and ice conditions.
 - Demonstrate compliance with statutory duty, as Roads Authority, by ensuring compliance with national guidance and best practice as defined with the Code.

Director of Development Services

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Date: 04/06/19

Appendices

A Winter Service Plan 19/20

Winter Service Plan
For
Carriageways & Footways
2019 - 2020

Falkirk Council

Appendix A



Falkirk Council

POLICY

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POLICY

1.0 Introduction

This is Falkirk Council's Winter Service Plan for Carriageways and Footways. It sets out the categorisation of priorities and the treatment and timings to be accorded to each of these.

The Winter Service Schedule which augments the Plan will provide details of staff rotas, staff and other useful telephone numbers, route and footway priorities and other management arrangements.

2.0 Statutory Duty

Winter service forms an integral part of the road maintenance function and Falkirk Council, by virtue of the Roads (Scotland) Act, 1984 (Section 34) has a statutory duty to **'take such steps as it considers reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over public roads'**.

3.0 Objective

Falkirk Council's objective in relation to winter service is the reduction as far as possible of the effects of adverse weather. To provide travelling conditions as safe as is reasonably possible having regard to financial constraints.

In order to achieve this objective it is recognised that a priority treatment system is required which will concentrate on the more important routes and then be extended to the less important routes when resources become available.

The winter service essentially comprises the following types of treatment:

- **Precautionary salt treatment**
- **Treatment of ice**
- **Treatment of snow**
- **Provision of grit bins**

These types of treatment are generally carried out in accordance with the Scottish Government Technical Memorandum SH 3/76, Scottish Government Code of Good Practice and Well Managed Highway Infrastructure (A Code of Practice), Section B7.

4.0 Winter Dates

Prior to each winter the Roads and Grounds Manager will determine the various dates and time periods relevant to the Policy and will arrange for the appropriate control arrangements to be in place during these times, based on the guidelines below.

The dates will be as realistic as possible however the unpredictability of the climate may lead to the need for action outwith the "Winter Service Period".

The following is given in general terms but actual dates depend on how the weeks and dates of the months relate to each year.

4.1 Core Winter Period

The Core Winter Period will run from the Friday nearest to the 1st of November until the Friday nearest to the 31st March, however, the end date should take into account the timing of the Easter break.

4.2 Lead-in and Lead-out Periods

The Lead-in to the Core Winter Period will be the two weeks prior to the start of the core period.

The Lead-out of the Core Winter Period will continue until the Friday nearest 30th April.

During the Lead-in and Lead-out times up to 50 percent of the winter gritting fleet will operate on a stand-by basis.

4.3 Footway Treatment

Footway treatment will be carried out during the Core Winter Period. Operatives taking part in footway treatment will operate on a standby basis during the months of December, January and February.

5.0 Duty Manager

The Duty Manager shall be the Roads and Grounds Manager or a nominated representative. The Roads and Grounds Manager will be responsible for appointing a rota of Duty Managers. The Duty Manager will be responsible for the implementation of the Winter Service Plan and its identified procedures within the Falkirk Council area.

The Duty Manager will make decisions on the implementation of Falkirk Council's winter service actions to assist in the safe passage of pedestrians and vehicles over public roads and to maintain the availability and reliability of the road network.

The Duty Manager will be responsible for receipt of weather forecasts from the forecast provider by 14:00hrs each day and making decisions on the relevant winter action required. The Duty Manager will arrange for a copy of the forecast to be transmitted electronically to all the required forecast recipients. The information to be included is as follows: -

- Duty Manager's name.
- Contact Telephone number
- Carriageway priority level of treatment
- Precautionary treatment start time
- Precautionary treatment rate of salt spread
- Footway priority level of treatment
- When weather conditions or minimum road surface temperature would normally necessitate a precautionary treatment, but if no treatment is proposed, justification shall be required for this decision i.e. no moisture is expected on the road surface, residual salt levels are high etc.

The Duty Manager will attend a training course run by the forecast provider at least once every 2 years.

The Duty Manager will have arrangements in place to ensure that all such relevant information is made available to the winter service operatives on duty.

The Duty Manager, upon notification of a change to the forecast which may necessitate a revision to the agreed daily action plan, will arrange with the Duty Officer to issue a revised action plan and for it to be transmitted electronically to the various forecast recipients. The Duty Manager will have arrangements in place to ensure that any updated forecast or revised winter response is timeously made available to the Duty Officers and Duty Supervisors on duty.

A rota of all Duty Managers on duty will be maintained in the Winter Service Procedures manual and will be held at the Duty Officer Control Room.

6.0 Duty Officer

The Duty Officer will be responsible for recording the winter activities carried out in the Duty Log, providing the information detailed below.

- Routes gritted including start / finish times and spread rates
- Routes ploughed
- Known accidents
- Roads closed
- Salt used
- Known breakdowns
- Weather forecasts

The Duty Officer will:

- Have no direct operational responsibility.
- Will attend a training course run by the Forecast Provider at least once every 2 years
- Be fully aware of the Policy, Procedures and Winter Service Plans of Falkirk, Stirling and Clackmannanshire Councils
- Be responsible for updating or amending the planned decision on treatment, liaising with the Duty Manager as required.
- Be responsible for ensuring that all rosters for staff on duty are collated and available at all times together with all necessary contact numbers.
- Be responsible for maintaining records of all reports received by telephone and documenting the action taken.
- Be trained in the interrogation of all information systems relating to the Winter Service and the interpretation of information received.
- In conjunction with Duty Supervisors, monitor current weather and road surface conditions.
- Maintain regular contact with the Duty Supervisors logging calls and transferring information where required.
- Be fully acquainted with weather forecasts and the intended action levels, thereafter initiating any action required and discussing mobilisation requirements with the Duty Supervisors
- Ensuring that the extent of mobilization is commensurate with prevailing/anticipated road conditions.
- Maintain liaison with Duty Supervisors and be aware of the level of activity ongoing or required throughout the three Council areas.
- Be familiar with customer care / enquiry procedures and liaise with external organisation e.g. other Local Authorities, Police, AA etc.
- Submit a brief activity report for each day of the week prior to 0900 hrs.

A rota of all Duty Officers and Duty Supervisors on duty will be maintained within the Winter Service Schedule and held at the Control Room

6.1 Duty Officer Control Room

During the Winter Period, including the lead-in and lead-out periods, a Duty Officer Control Room will operate from a central location between 17:00hrs and 09:00hrs on weekdays. The Duty Officer will work from home on a standby arrangement on Saturdays and Sundays during the winter period unless the 2 to 5 day forecast predicts adverse weather over the weekend period. A decision will be taken on the Wednesday each week regarding the requirement to work from the Duty Officer Control Room.

During adverse weather, a central location is desirable to allow easy access to weather forecast data, weather radar, roads sensor data and the forecast provider's consultation service. It acts as a "hub of communication and information in the effective management of the service in the 3 Council areas. This will also allow communications with the Police, members of the public and the local authority's 24hr emergency controls. At the times specified above the co-ordination of winter operations together with the upkeep of the essential duty log is also efficiently managed by the Duty Officer from the control room. The Duty Officer control room is currently located at Springkerse Depot in Stirling.

Duty Officers will operate on a rota system, alternating this duty with officers from Stirling and Clackmannanshire Councils as per the "Tri-Council Partnering Agreement".

7.0 Weather and Other Emergencies

The Winter Service is not an emergency operation in the traditional sense. It is reasonably predictable that certain conditions will pertain at times during the winter and hence a certain amount of planning can be made in anticipation. Other weather emergencies and the consequences are less predictable and less preparation can be made. However, procedures must allow for the efficient and early response to weather emergencies of any kind and other emergencies such as road accidents, landslips etc.

Since a control system exists for winter purposes, it is logical to handle other emergencies through the same procedure at the appropriate time of year. Outwith the winter period responsibility and control will be with the Roads and Grounds Manager or nominated representative(s).

The Roads and Grounds Manager or Duty Manager may place additional staff as required on standby on receipt of an adverse weather forecast.

8.0 Carriageways

The service provided will be based mainly on the road's importance as a traffic route, with consideration being given to public transport services.

The priorities and the relevant road types are defined below together with the relevant treatment standards and operational times.

8.1 Priorities, Treatment Standards and Operational Times

In ice conditions, treatment will be the passage of a gritting vehicle travelling in one direction over the carriageway or footway spreading salt or sand/grit/salt mix. The area treated will be limited to the spread distribution of the equipment utilised.

For snow conditions, treatment will be the passage of a gritting vehicle travelling in both directions clearing snow over the width of the plough. This will then be treated with salt or a mixture of grit/sand/salt.

8.2 Priority C1 Carriageways

Council roads of primary importance and which form a strategic network, these being Strategic, Main Distributor and Secondary Distributor Roads and comprise main urban traffic routes, the main routes to larger schools, Falkirk Council owned surfaced car parks, major bus routes and routes to main Emergency Service establishments. A list of all Priority 1 routes will be held within the Winter Service Schedule and will be identified on the Council website.

Treatment and Times

- Precautionary salt treatment 24 hours per day.
- Treatment of ice 24 hours per day.
- Treatment of snow 24 hours per day.

8.3 Priority C2 Carriageways

These are identified roads of lesser importance as traffic routes and important rural routes. In terms of hierarchy, these routes are Link Roads and include main urban spine roads into housing and industrial areas where there are difficult bends or steep inclines and are particularly prone to icing. A

list of all Priority 2 routes will be held within the Winter Service Schedule and will be identified on the Council website.

Treatment and Times

Any treatment on Priority 2 routes will normally be carried out between 05:00 hours and 22:00 hours.

- Precautionary salt treatment on receipt of a specific instruction from the Duty Manager.
- Treatment of ice on receipt of a specific instruction from the Duty Manager.
- Treatment of snow on receipt of a specific instruction from the Duty Manager.

The Duty Manager should be satisfied that the following criteria are met:

- Precautionary salting on Priority 2 routes should only be carried out in exceptional circumstances.
- The general outlook established from forecasts and other weather information, is that the prevailing ice and / or snow conditions are likely to continue to exist unbroken beyond 24 hours from the initial onset. Consideration should be given to rural routes which may not have defrosted in line with urban routes.
- The treatment of Priority 2 routes should not be detrimental to the level of service required on Priority 1 routes.

8.4 Priority C3 Carriageways

These are the most significant of the remainder of the road network which are Local Access Roads in terms of hierarchy.

Treatment and Times

These routes will only be treated in exceptional weather conditions, and only when resources permit. Should resources allow, consideration will be given to the higher level roads in the first instance. Treatment will require the authorisation of the Roads and Grounds Manager in consultation with the Duty Manager.

Priority 3 routes will normally be treated during normal working hours (deemed to be 0730 – 1600 hrs Monday to Thursday and 0730 – 1230 on a Friday inclusive). No treatment will be carried out beyond these times unless authorised by the Roads and Grounds Manager or Head of Service.

Treatment should not be detrimental to the level of service required on routes of Priorities 1 and 2 and there should be uniformity in the timing of their introduction in all affected areas.

The Duty Manager should be satisfied that the following criteria are met:-

- The general outlook established from forecasts and other weather information is that the prevailing ice and/or snow conditions are likely to continue to exist unbroken beyond 48 hours from the initial onset.

8.5 Priority C4 Carriageways

The remainder of the Local Access Road road network.

Treatment and Times

It is extremely unlikely that these routes will receive any treatment. These routes will only be treated in exceptional weather conditions, and only when resources permit.

Treatment will require the authorisation of the Roads and Grounds Manager or Head of Service in consultation with the Duty Manager.

The treatment will deal with any remaining areas presenting greater difficulties than general and progressively move onto roads of lesser difficulty.

Any treatment on Priority 4 routes will normally only be carried out during working hours (deemed to be 07:30 – 16:00hrs Monday to Thursday and 07:30 – 12:30hrs on a Friday inclusive). No treatment will be carried out beyond these times unless authorised by the Roads and Grounds Manager or Head of Service.

Treatment should not be detrimental to the level of service required on routes of Priorities 1, 2 and 3 and there should be uniformity in the timing of their introduction in all affected areas.

9.0 Footways and Cycleways

The service provided will be based largely on the importance of the footway/cycleway as a pedestrian/cyclist route both in terms of pedestrian volumes and the importance of the destination.

The priorities and the relevant footway types are defined below together with the relevant treatment standards and operational times.

Footway is the term for the pedestrian walking surface or pavement adjacent, parallel or relatively close to the carriageway.

Footpath is the term for a pedestrian walking surface between or remote from carriageways.

Cycleways will only be treated where they form part of the carriageway or footway and will be treated in accordance with the priority for that section of carriageway or footway

9.1 Priorities, Treatment Standards and Operational Times

In ice conditions treatment will be the passage of a gritting vehicle travelling in one direction over the cycleway or footway spreading salt or a mixture of sand/grit and salt. The salt or a mixture of sand/grit and salt will be spread within the limitations of each individual vehicle.

For snow conditions treatment will be the passage of a gritting vehicle clearing snow over the width of the plough to a level of 10mm. This will then be treated with salt or a mixture of grit/sand and salt will be spread within the limitations of each individual vehicle.

9.2 Priority F1 Footways

Footways with the highest pedestrian usage. In hierarchy terms, these will be prestige, primary and secondary walking routes. These include main town and village shopping areas, pedestrian precincts, main routes to urban schools, main access routes to hospitals, clinics, identified public buildings, major sheltered housing complexes and other high risk areas. A list of all Priority 1 footway routes will be held within the Winter Service Schedule and will be identified on the Council website.

Treatment and Times

- Precautionary salt treatment only on a specific instruction from the Duty Manager.
- Treatment of ice only on a specific instruction from the Duty Manager.
- Treatment of snow 24 hours per day on a specific instruction from the Duty Manager depending on the severity of conditions and resources available.

The Duty Manager should be satisfied that the following criteria are met:

- The general outlook established from forecasts and other weather information, is that ice and/or snow conditions are likely to continue beyond 08:00hrs.

9.3 Priority F2 Footways

These are footways of a lesser importance, generally Link Footways for which a list will be held within the Winter Service schedule and will be identified on the Council website. These routes include main pedestrian routes in major housing developments and the main access routes to sheltered housing complexes and other establishments. Where day centres for older people or people with special needs have been identified as having substantial pedestrian usage, these will be treated under this category.

Treatment and Times

Any treatment on Priority F2 routes will normally be carried out during working hours (deemed to be 07:30 – 16:00hrs Monday to Thursday and 07:30 – 12:30hrs on a Friday inclusive).

- No precautionary salt treatment.
- Treatment of ice, in so far as is practicable, only on a specific instruction from the Duty Manager.
- Treatment of snow, in so far as is practicable, on a prioritised basis depending on conditions and resources available and only on a specific instruction from the Duty Manager.

The Duty Manager should be satisfied that the following criteria are met:

- The general outlook established from forecasts and other weather information, is that the prevailing ice and / or snow conditions are likely to continue beyond midday 24 hours after the initial onset
- The treatment of Priority F2 routes should not be detrimental to the level of service required on Priority F1 footways.

9.4 Priority F3 Footways

The remainder of the footway network. It is extremely unlikely that these routes will receive any treatment.

Treatment and Times

- These routes will only be treated in prolonged adverse weather conditions, and only when resources permit.

10.0 Resilience Plan

10.1 General

In order to keep Strategic and Main Distributor Routes open during times of significant snowfall and to allow traffic to flow freely on these routes a Resilience Plan (RP) has been introduced. This will be brought into operation when continuous snow is forecast and likely to give significant accumulations in excess of 100mm over a substantial part of the Council area and expected to remain in untreated locations for a prolonged period before a natural thaw disperses it.

Procedures for the treatment of ice and snow are established and this separate Plan which relates specifically to the management of extreme winter snowfall events has been developed. During snow conditions, when designated routes are likely to be affected by significant levels of lying snow, gritters will be deployed on these routes until satisfactory snow clearance has been achieved.

The formulated Resilience Plan will ensure that Strategic and Main Distributor Routes are treated with priority. Instructions will be issued for work to proceed on the rest of the Priority 1 Carriageway, F1 Footway and Secondary Carriageway and footway routes once the Strategic Routes are in an acceptable condition.

This Plan takes account of a number of factors which affect the removal of snow from carriageways and footways: - the temperature of the road surface; the timing of the snow; day or night; the volume of traffic using the roads; a pre-planned application of salt has been undertaken prior to the snow.

10.2 Snow Routes for Carriageways

The Resilience Plan is aimed at clearing around 250 km of Strategic and Main Distributor Roads and recognises that the clearing and treatment of snow can take longer than standard gritting procedures due to lying snow requiring to be ploughed in both driving directions.

The resilience routes target the most important roads within the network hierarchy i.e. Strategic Routes, Main Distributor Routes. These do not include all of those identified as Priority C1 carriageway routes generally. This ensures that the gritting fleet can cope. Whilst ploughing is in operation salt should be spread over the ploughed area to prevent snow from compacting.

In exceptional circumstances when routes identified within the Resilience Plan cannot be kept open, the Duty Manager may issue instructions to further prioritise route treatment.

10.3 Treatment of Carriageways in Snow Conditions

MINIMUM WINTER NETWORK: The objective is to keep as much of the network as safe and free flowing for traffic as possible. Priority will be given to:

- A. Snow Routes
- B. Remainder of the Priority 1 Gritting Route.
- C. Priority 2 Gritting routes

A list of all Priority snow routes will be held within the Winter Service Schedule and will be identified on the Council website.

Treatment and Times

- Precautionary salt treatment 24 hours per day.
- Treatment of snow 24 hours per day.

As the snow falls treatment will commence and continue until the snow has been moved and is no longer accumulating on the road surface. Ploughing operations should start when the snow has reached a depth which can be ploughed. Prior to this treatment action will consist of salt spread at 20g/sqm. On completion of the drivers' hours, fresh drivers should be brought in so that the operation may proceed without interruption.

10.4 Treatment of Footways and Pedestrian Areas in Snow Conditions

MINIMUM WINTER NETWORK: Treatment of snow on Priority F1 Footways will commence concurrently with the Carriageway Snow Route treatment. These routes will include areas of high pedestrian usage where risk to pedestrians from extreme weather is highest.

Steps and ramps to underpasses and footbridges together with any 'low level' footpaths associated with the underpasses and the footpaths on the footbridges. A list of all Priority F1 footway routes will be held within the Winter Service Schedule and will be identified on the Council website.

Treatment and Times

- Precautionary salt treatment 24 hours per day.
- Treatment of snow 24 hours per day.

10.4 Car Parks

Falkirk Council owned and surfaced Car Parks are included in the Priority C1 carriageway gritting routes. These car parks will be treated under this priority in snow conditions only once the priority carriageway snow routes are at an acceptable level and the Duty Manager considers it appropriate.

10.5 Grit Bags

In times of extreme weather it is not always possible to service grit bins due to their location.

Grit bags may will be supplied to locations which have already been identified for easy access and use by members of the public.

10.6 Roads and Grounds Manager

During extreme snow events the Roads and Grounds Manager will be responsible for the implementation of the Resilience Plan and its identified procedures.

During prolonged periods of extreme weather the Roads and Grounds Manager will assume a strategic role which will allow her to have an overview of all decision making and operational requirements. While the Duty Manager will be responsible for the day to day operations and decision making the Roads and Grounds Manager position will allow for strategic or executive decisions which will feed into the day to day operations, to be made.

The Roads and Grounds Manager will have arrangements in place to ensure that all relevant information is made available to the winter service operatives on duty.

10.7 Duty Manager

The role of the Duty Manager in extreme conditions will be as detailed in Section 5 of the Winter Service Plan. Where the Roads and Grounds Manager is rostered as the Duty Manager for the winter service, one of her deputies will assume the role of the Duty Manager allowing the Roads Manager to carry out the roles and responsibilities as detailed above.

10.8 Duty Officer

The role of the Duty Officer in extreme conditions will be as detailed in Section 6 of the Winter Service Plan

10.9 Communications Liaison Officer

During periods of extreme weather the Roads and Grounds Manager will designate a member of Roads and Grounds Services staff to act as Communications Liaison Officer. The Communications Liaison Officer will remain the point of contact for all Council services with regard to all ongoing operations. The Communications Liaison Officer will gather current and accurate information from as many sources as possible, including the Emergency Control Room, Supervisors and other Council Services. The Communications Liaison Officer will facilitate the exchange of information in the event of significant issues or problems and will be responsible of supplying up to date information for the Council website and members. The Communications Liaison Officer should be informed and updated with accurate information on road blockages, prevailing conditions and any significant developments. The Communications Liaison Officer will provide a daily information bulletin by 16:00 each day during the extreme weather for use by Members and inclusion on the Council website. This should be passed to the Roads and Grounds Manager who will authorise the information prior to it being forwarded to the Head of Service (Design, Roads and Transport) / Director of Development Services.

10.10 Duty Team

During snow events the Roads and Grounds Manager may decide it is necessary to create a local Emergency Control Room and Duty Team to oversee the decision making and implementation of the snow plan.

The ideal makeup of the duty team will consist of:

- A. The Duty Manager
- B. 2 Duty Officers
- C. 1 Communications Liaison Officer

Managers and Officers will be required to have access to GIS so that all clearance works can be registered and a pictorial representation built up. They should also be aware of the information contained in the Out of Hours Duty Officer Log so that staff handling enquiries can be kept aware of the situation.

The Duty Team will act as a clearing centre for all information and will distribute it accordingly. Where there are known road closures then a traffic alert will be posted on the Council website and on the Roads Twitter account.

11.0 Grit Bins

Grit Bins will be provided on Non- Priority 1 routes to accommodate normal icing conditions:-

- Where there are difficult bends, inclines, junctions and turning areas which are particularly prone to icing and where they have been in place for a number of years (historic reasons) or a special need has been recognised, eg:-
 - adapted housing
 - school crossing patrols
 - sheltered housing complexes
 - steps
 - underpasses

Providing that:-

- local residents agree on a suitable location within the road boundary
- there is confidence that the grit bin will be properly used

Roads Services currently supply in excess of 1000 grit bins for salt/grit storage for use on the adopted public road and footway network. The large number of bins reflects the Council's desire to encourage self-help at locations where minor roads and lesser important routes have a lower priority response for mechanical treatment.

A mixture of salt and grit is provided solely for use on the adopted public road network and not on private areas, for example driveways etc. Salt required for private areas can be purchased from DIY stores and Builders Merchants.

Grit bins will not be provided on un-adopted roads, whether privately maintained or prospectively adoptable. Housing Developers are required as a condition of their Construction Consent to meet these requirements.

11.1 Community Grit Bins

There are several communities in the Falkirk Council area where gradient and geometric difficulty is not a factor. At such locations (e.g. Grangemouth) it is preferred to locate Community grit bins at strategic locations, agreed with Community or Resident's groups. A Community grit bin may be provided for each area approximating up to 8 community grit bins per 1 sq. kilometre.

11.2 Removal of Grit Bins

Grit bins will be removed from their given location:-

- where there is proof of misuse of the salt
- where residents cannot agree a location or need*
- where bins suffer continued vandalism (minimum 2 separate occasions). A letter will be issued to residents after the first occasion
- where there are concerns, over the summer months, that the grit bin has an adverse effect on local amenity the grit bin may be temporarily removed at the discretion of the Roads and Grounds Manager

No grit bins will be removed during periods of severe weather without extensive consultation with the residents concerned.

** The provision of a new grit bin (or relocation of an existing grit bin) should be agreed through consultation with or between residents prior to installation, particularly those directly affected. If a suitable location, which addresses the geometric requirements, cannot be agreed then a grit bin may not be provided.*

11.3 Servicing of Grit Bins

Grit bins will be placed where they can be easily refilled from a lorry parked alongside.

Grit bins will be refilled as soon as possible after a period of heavy use. Given the large number of bins, there is a considerable resource implication to replenish salt/grit and this task will only be undertaken when carriageway and footway treatments have been scaled down sufficiently to release labour and plant for grit bin duties. Priority will be given to the higher altitude locations.

A specific email address, grit.bins@falkirk.gov.uk has been set up for members of the public to use to advise when bins require to be replenished with salt/grit out with the normal servicing.

A list of all grit bin locations will be held within the Winter Service Schedule and grit bins will be identified on the Council website

12.0 Communications

Service requests will be handled by Falkirk Council's Contact Centre both during and outside working hours. These requests will be passed to the Area Maintenance Team to prioritise and deal with accordingly.

Public contact with Operational staff, the Duty Team and the overnight Duty Officer will not normally be available, thus enabling staff to deal with service delivery issues.

Requests for urgent assistance by the emergency services will receive considered priority action but such requests must be made through their control centre. In other cases such as funerals any requests must be made by the appropriate authority such as the Funeral Director. Requests of this type will be passed to the Duty Team or overnight Duty Officer to action and co-ordinate as required.

In extreme conditions, a daily information bulletin will be provided by 16:00 each day for use by Members and inclusion on the Council website. This should be passed to the Roads Manager who will authorise the information prior to it being forwarded to the Head of Service (Roads and Design) / Director of Development Services. This bulletin will include the following information:

- Weather summary for previous 24hrs
- Weather forecast summary for the following 24hrs
- Details of areas and works completed during the previous 24hrs.

- Details of proposed actions for the following 24hrs.
- Any road closures
- Salt resilience

13.0 Level of Service

The decision to initiate winter operations will normally be made by the Duty Manager, based upon the Weather Forecast received from the forecast provider. These forecasts will be provided every day between 12:00hrs and 14:00hrs (including week-ends and public holidays). In addition, outwith normal working hours, the forecast provider will contact the Duty Officer if there is any major change in the projected weather conditions.

Out-of-hours Winter Operations may also be initiated by the Duty Officer on confirmed reports of adverse weather conditions.

As the decision to initiate planned winter operations will be based on the forecast provider's forecast, it is proposed, where possible, to treat Priority 1 routes outwith the hours of peak traffic flows. Where possible, it is intended that the treatment of these routes will be completed prior to the start of the morning peak (07:30hrs). Where the forecast indicates adverse conditions in the evening, reasonable effort will be made to treat outwith the evening peak; however, this will depend on forecast conditions and will not always be possible.

14.0 Plant, Vehicles, Materials and Resilience

14.1 Vehicle Tracking

Roads Services makes use of the latest electronic vehicle location systems together with automatic recording of salt spreading. This helps to improve the accuracy of records as well as providing collaboration of service delivery in cases where failure to treat is alleged.

14.2 Materials

SALT MANAGEMENT: Salt will not be given or sold to any company or organisation, unless under specific instruction of the Roads and Grounds Manager. Organisations wishing to acquire or procure salt should be directed to the appropriate local merchants.

Roads Services stores its salt in the salt dome at Grangemouth which is capable of holding 8000 tonnes. A minimum stock of 2600 tonnes will be available at the start of the winter period for use solely on the public road network.

Falkirk Council Roads Services obtains salt supplies for de-icing through a contract with Compass Minerals as the main supplier. Regular contact is maintained between the supplier and the authority to ensure that the supply is treated as a service rather than a simple commodity purchase. Salt will be restocked throughout the winter season.

In periods of extreme or prolonged conditions it may be necessary to obtain supplies from out-with the existing contract and Roads and Grounds Services will use this option as required and in collaboration with the other local service partners.

15.0 Winter Service Training and Development

Roads Services ensures that all personnel involved in the Winter Service Plan, are trained or experienced to demonstrate competence in delivery of their duties. An annual evaluation and review of training requirements will be undertaken to ensure that all staff have the appropriate vocational and health and safety training / qualifications.

Any identified training will be completed prior to the start of the winter season.

Falkirk Council may carry out periodic exercises to test plans for responding to severe weather events.

PROCEDURES

16.0 Management Arrangements

For roles and responsibilities see Appendix 1

17.0 Operational and Supervisory Procedures and Responsibilities

Lead-in Period

Throughout this period and during the core winter period two Duty Supervisors will be on standby. The Duty Supervisors will be rostered from Development Services, Roads & Grounds Services operational personnel. The Duty Supervisors will direct, monitor and record operations in their designated areas during all pre-grit, call out and stand-to situations.

The Duty Supervisors will be available at all times out with normal working hours.

Suitably qualified standby personnel will be rostered for availability at all times with additional off-duty personnel available for call out as demand arises. During this period a total of ten drivers plus one loading shovel operator will maintain a standby presence.

Core Period

During the Core Period, Development Services will detail 8 gritters to the treatment of the Falkirk Council network.

Staffing arrangements in respect of the above will be as follows:-

- 8 Gritters for Falkirk Council Routes – Standby Rosters
- 1 Loading Shovel – Salt Union Salt Dome – Standby Rosters

All personnel will be reminded that the interpretation of standby is that they must be immediately available to commence gritting or any other operation after call-out.

At all times out with normal working hours (except as otherwise may be directed) the standby gritter fleet and all reserve gritters will be immediately available to standby crews at Earls Road Depot.

Drivers will report any vehicle / equipment defects to the Duty Supervisor and in the event of a breakdown during a call-out, the matter will be reported immediately to the Duty Supervisor who will either arrange a repair or make available a spare gritter.

It will be clearly understood that the completion of the treatment of the Priority Route is of prime importance at this stage.

Gritters will not normally be automatically double staffed in snow conditions. If conditions become severe or in particular instances the Roads and Grounds Manager will have the discretion to double-staff where necessary.

A loading shovel will be available at Grangemouth Salt Dome. Defect reporting to be as above.

On receipt of the daily Meteorological Forecast the Duty Manager will determine treatment of Carriageway Priority Routes and Footway Priority Routes over the 24-hour period to follow. This will normally take the form of: -

- Evening pre-grit at a specific time

- An evening pre-grit “on hold” with call out based on subsequent weather, outstation data or Police information.
- Stand To at 05:00 hrs combined if necessary with either of the above.
- Stand To at 05:00 hrs for footpath teams.
- Duty Officer to monitor - who will call Supervisors if required.
- Supervisor Stand To where the Duty Supervisors check routes at 04:00 hrs.
- No Planned Action

In the event of a pre-grit being necessary or an emergency arising out with normal working hours, the Duty Supervisor will call-out Drivers, Plant Operators etc. as appropriate. Treatment will continue, if necessary 24 hrs per day.

On completion of the priority route network or when an emergency is over, all permanently mounted gritters will be reloaded (drivers of other gritters to check with the supervisor) and all personnel will report off duty to stand by. On all occasions the Duty Supervisor will record the on / off times.

In the Stand To situations the Duty Supervisor will issue instructions, based on his local route knowledge and updated outstation and Meteorological information. In the event of there being no such requirement, alternative duties may be detailed.

If no Stand To is required on a normal working day, all personnel should report to the Depot at normal starting time or as instructed.

Lead-out Period

Throughout this period the Duty Supervisors will be on Standby. The Duty Supervisors will be rostered from Development Services operational personnel. The Duty Supervisors will direct, monitor and record operations in their designated area during all pre-grit, call out and stand-to situations.

The Duty Supervisor will be available at all times out with normal working hours.

Suitably qualified standby personnel rostered for availability at all times with additional off-duty personnel available for call out as demand arise. During this period a total of 10 drivers plus one loading shovel operator will maintain a standby presence.

18.0 General Procedures and Responsibilities

Weekend Arrangements for Carriageways

In order to receive instructions on the proposed treatment action through the weekend period from Saturday evening to Monday morning, drivers and plant operators will be contacted via SMS messaging with regard to any carriageway actions. Should operatives not receive any SMS messaging prior to 16:00hrs they must telephone Falkirk Council's Emergency Control Centre between 16:00 hrs and 17:00 hrs request action instructions.

Prior to this time, the Duty Officer in consultation with the Duty Manager will have evaluated the weather forecast and road condition outstation information, determined the appropriate treatment requirements, and will have passed this information to Falkirk Council Emergency Control and Duty Supervisors. A similar arrangement will exist during Public Holidays.

- Falkirk Council Emergency Tel: 01324 – 506070

Footways Arrangements

In the event that treatments are required on Saturday, Sunday or Monday the Duty Supervisor will contact each member of the footpath rota for that week to advise that a stand to will be required the following morning.

SMS messages will be sent during December, January and February when staff are working to Standby arrangements.

Arrangements during Continuous Gritting and Ploughing Operations

During continuous operations, particularly in adverse conditions, the working hours of all personnel will be closely monitored. Where prolonged operations result in standby drivers and plant operators being stood down, any subsequent requirement for continuous gritting / call-out / pre-grit may be detailed to relief personnel. It will therefore be necessary for all personnel to operate through prolonged emergency periods, as instructed.

Drivers and management / supervisory staff are required to heed the requirements of the Drivers Hours Regulations and ensure that all drivers whether operating under EEC or Domestic Regulations abide by their limits. It should be noted that under the Domestic Regulations, a general exemption from the Driving Regulations is allowed to deal with Emergencies.

Gritting in general is not deemed to be an Emergency operation, however drivers working under Domestic Rules should not be asked to work beyond 11 hours unless there are unforeseen circumstances.

All time in excess of the normal daily driving limits must be spent in dealing with Emergencies and an appropriate level of rest time will be afforded to all personnel as soon as the Emergency is over.

The change over at weekends of continuous gritting is the Friday day/ stand-to driver (driver A) continues to 16.00 hours, the other driver (driver B) works 16.00 hours to 04.00 hours, Driver A works 04.00 hours to 12.00 hours on Saturday, driver B works 12.00 hours to 20.00 hours on Saturday, driver A works 20.00 Saturday to 04.00 hours Sunday, Driver B works from 04.00 Sunday being the new stand-to driver. The change over now being complete and all men have had some reasonable rest.

Liaison with Other Parties

Duty Officer shall advise the following people of the weather forecast and the proposed actions: -

- Clackmannanshire Council
- Stirling Council
- Amey-North Lanarkshire
- Amey (Trunk Roads)
- West Lothian Council
- Police Scotland
- Motoring Organisations

During periods of severe weather conditions, Police assistance may be required when arranging for road closures or dealing with abandoned vehicles.

Falkirk Council will provide the following external organisations with one copy Winter Service Plan: -

- Clackmannanshire Council
- Stirling Council
- Amey-North Lanarkshire
- West Lothian Council
- Police Scotland
- Amey (Trunk Roads)

Police Scotland will be responsible for arranging copies of the Winter Service Plan to be distributed to local and divisional offices as appropriate.

Police personnel shall report adverse winter conditions direct to Falkirk Council Emergency Control in order that the appropriate reactive measures can be taken.

The Roads Manager will liaise with senior Police Officers prior to the start of the winter service period to review the operation of the winter service plan during the previous winter and to agree methods of liaison and communication for the forthcoming winter period.

19.0 Decision Making

Management /Quality Assurance Audit

Generally, all gritting vehicles are fitted with GPS transponders to enable tracking of the vehicle and log the actions taken. Information gathered provides a regular snapshot of the vehicle's position, speed and direction of travel as well as its operational status. This information enables routes to be fully audited from a remote position and provides accurate and comprehensive treatment records. Therefore at the earliest opportunity following a call-out, routes should be chosen at random and an audit undertaken using the recorded GPS data. This will include the checking of:

- Vehicle speeds when gritting / travelling.
- Conformation with designated gritting route.
- Times of treatment operation.
- Correct logging of start, route completion and finish times.

Although road speed is not significant for salt spread, an excessive speed can cause safety problems and gives rise to public concerns. Where excessive speed is a problem or where parts of a gritting route have been missed out this will be brought to the attention of the appropriate Duty Supervisor for action to be taken where necessary.

Where problems with the speed of vehicles or route taken have been highlighted the route should be resubmitted for auditing after the next treatment. If the problem continues further action will need to be taken in conjunction with the Duty Manager.

Random inspection of carriageway & footways during or following treatment will record:

- Compliance with the specific route.
- Compliance with the width and spread of treatment and its effectiveness.

Control Room

During the core period (November – March) Falkirk Council along with Clackmannanshire and Stirling Councils will operate an out of hours Control Room for winter services. The Control Room will allow real-time information monitoring from ice-detection outstations and will therefore allow each council to be more reactive in determining if action is necessary on receipt of a marginal forecast.

The Control Room allows implementation of the following procedure: -

Forecast Procedure

Weekday

- Duty Manager, based at Earls Road, Grangemouth, will receive the 24hr forecast prior to 14:00hrs.
- The Duty Manager, in consultation with an Officer, will review the forecast and make decisions on the relevant winter response required taking into account local conditions.
- The Officer will print and send electronically the weather actions to all the forecast recipients prior to 15:00hrs.

Weekend

- Duty Officer, based either at home or at the Control Room will receive the 24hr forecast prior to 14:00hrs
- The Duty Manager, in consultation with the Duty Officer, will review the forecast and make decisions on the relevant winter response required taking into account local conditions.
- The Duty Officer will send electronically the weather actions to all the forecast recipients prior to 15:00hrs.
- The Duty Officer will advise by telephone all Duty Supervisors of the winter response required for the next 24 hours.

In the event of computer failure the Forecast Provider will fax the forecast to the Duty Officer.

General Procedure

- The Duty Officer at the Control Room will ascertain the proposed actions of the adjoining local authorities and trunk road contractors together with any later changes.
- The Duty Officer at the Control Room will monitor road and weather conditions together with forecast updates.
- When informed of significant changes the Duty Manager, in consultation with the Duty Officer, recommends a change to the proposed action.
- The Duty Officer will then communicate the instruction to the Duty Supervisors.

Control Room Procedure

- Duty Officer monitors road and weather conditions and liaises with the forecast provider as necessary.
- Duty Officer will notify the Duty Supervisor of any action required.
- The Duty Officer will give verbal instructions regarding action to the Duty Supervisor. This information should be recorded in the Duty Log.
- If road temperatures generally drop below +1°C (or are dropping rapidly to +1°C) and there is reasonable cause for concern the Duty Officer may call the Duty Supervisor to inspect their area. In consultation with the Duty Supervisor, the Duty Officer may initiate any action required on the Priority 1 network. If this situation arises the Duty Officer will at his / her earliest convenience advise the Duty Manager of the change of action.
- The Duty Officer will record his / her actions in the Duty Log.

Weather Actions

The following sections give additional specific requirements for a defined course of action.

No Planned Action/ Duty Officer to Monitor

- The Duty Officer will monitor road and weather conditions and liaise with the forecast provider as necessary.
- If road temperatures generally drop below +1°C (or are dropping rapidly to +1°C) and there is reasonable cause for concern the Duty Officer may call the Duty Supervisor to inspect their area. In consultation with the Duty Supervisor the Duty Officer may initiate any action required on the Priority 1 network.
- If this situation arises the Duty Officer will at his / her earliest convenience advise the Duty Manager of the change of action.
- The Duty Officer will record his / her actions in the Duty Log along with the information passed by the Duty Supervisor.

Precautionary Salting

- The Duty Officer will monitor road and weather conditions and liaise with the forecast provider as necessary.

- If road temperatures generally drop below +1°C (or are dropping rapidly to +1°C) and there is reasonable cause for concern the Duty Officer may call the Duty Supervisor to inspect his area. In consultation with the Duty Supervisor the Duty Officer may advance the timing of the precautionary salting.
- If precautionary salting has been included in the planned action to be carried out on the Priority 2 network at the conclusion of the Priority 1 network then this should also be carried out.
- In either situation the Duty Officer will at his / her earliest convenience advise the Duty Manager of the change of action.
- The Duty Officer will record his / her actions in the Duty Log along with the information passed by the Duty Supervisor.

Stand To

- The Duty Officer will monitor road and weather conditions and liaise with the forecast provider as necessary.
- In the Stand-To situation gritters will be mobile from 05:00 hours. If road temperatures generally drop below +1°C (or are dropping rapidly to +1°C) and there is reasonable cause for concern prior to this time the Duty Officer may call the Duty Supervisor to inspect his/her area. In consultation with the Duty Supervisor the Duty Officer may advance any action required on the Priority 1 network.
- If this situation arises the Duty Officer will at his / her earliest convenience advise the Duty Manager of the change of action.
- The Duty Officer will record his / her actions in the Duty Log along with the information passed by the Duty Supervisor.
- The Duty Supervisor stand-to, as stand-to but the supervisor to check the route and call out drivers as required.

20.0 Forecast Provider

General

The Forecast Provider shall continuously monitor weather conditions. Should the actual temperature at any outstation fall by 2°C from the forecast temperature (within the range +5°C to -5°C) the Forecast Provider will, as appropriate, update their forecast.

The Forecast Provider will telephone the nominated out of hours contact (Control Room during the core period or Falkirk Council Emergency out with this time) and will issue non-routine amendments to the site specific forecast graphs and revisions to the 24-hour textual forecast: -

- If there is a change of frost status (no frost to frost, or vice-versa – in this case frost refers to road surface temperature of zero degrees Celsius or less).
- If the actual road surface temperatures are below (or are now forecast to fall below) plus 1 degree Celsius, when initially forecast otherwise.
- If there is a change in snow status as follows: -
 - Change of accumulations category e.g. nil to slight, slight to moderate, moderate to heavy and vice versa
 - Change from isolated to widespread (e.g. for snow showers)
 - Earlier or later thaw than expected
 - Change in commencing / cessation time of more than two hours
- If there is a significant change in surface wetness and road temperatures are expected to fall to zero degrees Celsius or below
- If there is a change by two hours or more in the timing of a frost

Should the update highlight an alteration to the onset of adverse road surface conditions, the Duty Officer should contact the Duty Manager to discuss whether a change to their proposed action is required.

- When the weather forecast predicts that the road surface temperature is likely to fall to plus 1°C the Duty Manager shall give consideration to precautionary treatment except where: -
 - No moisture is expected on the road;
 - There is enough residual salt on the road to deal with the expected conditions; or
 - The latest weather forecast information indicates that the temperature will rise and there will be no period of frost.
 - Precautionary treatment shall be in accordance with Appendix 2

When sustained low air temperatures occur, then for each degree below minus 5°C the amount of salt needed to maintain the equivalent melting effect increases by about 14g/m² to a maximum of 40g/m². Where traffic is reasonably heavy, little or no increase is needed until the air temperature falls below minus 10°C.

A summary of spread rates for precautionary treatment is given in Appendix 2

During the winter period the Forecast Provider will transmit a 24 hour text forecast by e-mail to the Control Room Master Station by 14:00hrs on a daily basis. The Duty Manager will arrange for a Duty Officer to access the daily weather report. If the forecast has not been received by 14:00hrs the Duty Officer will contact the Forecast Provider to make alternative arrangements.

Should the Master Station fail to operate the Forecast Provider shall send by facsimile the 24-hour textual forecast.

Text Forecasts

There are three main types of text forecast: -

- **Green** Road Surface Temperatures are expected to remain above freezing with no ice and/or snow accumulations.
- **Amber** Road Surface Temperatures are expected to fall close to or below freezing with ice and/or snow accumulations possible.
- **Red** Road Surface Temperatures are expected to fall below freezing with ice and/or snow accumulations.

Morning Summary

This forecast is normally available between 06:00 and 09:00 on the day of issue. It contains the following information: -

- Statement of actual weather that has occurred in the previous 24 hours, including minimum air temperatures and minimum road surface temperatures observed. In addition, details of any snowfall will be mentioned.
- Any suspect faults with the ice prediction system including suspect road- sensor readings.
- A preliminary forecast for the coming day and night. This is designed to be brief and is expanded on later in the day by the 24-hour text forecast.

24-hour text forecast

The 24-hour text forecast is designed to be outline guidance for the Duty Manager and Duty Officer. The forecast covers the Falkirk, Clackmannanshire and Stirling areas of operation.

The following elements are normally included. All would normally include timings of occurrence:

- Road state including ice and hoar frost
- General road surface temperatures
- Visibility (if less than 200m)
- Precipitation (other than snow)

- Snow details including
 - Height above which expected
 - Accumulations
 - Drifting
 - Type of snow
- General weather summary
- Hazard summary and confidence

The 24-hour text forecast contains a one-word hazard summary that is a risk assessment for the coming night. The system uses a traffic-light system: -

2 to 5 day text forecast

The general information contained within a five-day text forecast is broadly similar to that contained within a 24-hour text forecast. The detail is usually less, and the confidence is usually lower. The forecasts are designed for medium-term planning of resources, especially over the weekends and holidays. They are designed to give a general idea of weather conditions, so that resources may be in the right place. This forecast should not be used for operational decisions about planned action.

21.0 Ice Prediction System

Meteorological outstations have been installed at the locations detailed below: -

Route Number	Outstation Name	Authority	Forecast / Non-Forecast
A82	Tyndrum	Scottish Exec	Non-Forecast
A84	Glenogle	Scottish Exec	Forecast
A84	Drumv'ch	Scottish Exec	Forecast
A811/A81	Ballat	Stirling	Non-Forecast
A873	Aberfoyle	Stirling	Forecast
A809	Queens View	Stirling	Non-Forecast
B822	Kippen	Stirling	Forecast
A9	Balhadie	Scottish Exec	Non-Forecast
M9	Pirnhall	Scottish Exec	Forecast
B9140	Hillview	Clackmannanshire	Forecast
A91	Muckhart	Clackmannanshire	Non-Forecast
M9	Polmont	Scottish Exec	Forecast
M80/M876	Haggs	Scottish Exec	Forecast
B818	Carronbridge	Falkirk	Forecast
A88	Stenhousemuir	Falkirk	Forecast
B825	Limerigg	Falkirk	Forecast
B803	Barleyside	Falkirk	Forecast
A801	Candie	Falkirk	Forecast
A993	Bo'ness	Falkirk	Forecast

Clackmannanshire, Falkirk and Stirling Council's also have access to all trunk road sensors within the council area and some sensors belonging to adjoining authorities.

Forecast Outstations have the following sensors: -

- Surface temperature sensor
- Surface moisture sensor
- Surface ice sensor
- Surface salt sensor
- Air temperature
- Dew point sensor
- Precipitation sensor

- Deep (sub-surface) temperature sensor
- Anemometer (wind speed)
- Wind vein (wind direction)

Non-forecast Outstations have the following sensors: -

- Surface temperature sensor
- Surface moisture sensor
- Surface ice sensor
- Surface salt sensor
- Air temperature
- Dew point sensor
- Precipitation sensor

The Roads and Grounds Manager will arrange for routine inspections of the outstations within the control of Falkirk Council. Findlay Irvine Ltd or Safecote Ltd as appropriate will carry out maintenance of the outstations. Faulty sensors detected by the Forecaster shall be notified in the Morning Summary. Falkirk Council Duty Officer staff will notify Findlay Irvine Ltd or Safecote Ltd as appropriate of the defect and make arrangements for the sensor repair.

The Operational master station for the Clackmannanshire, Falkirk and Stirling Council's Ice Prediction System will be based at the Control Room.

The master station will poll the outstations on an hourly basis. This will include the outstations on the local authority and trunk road networks.

Access to the master station will be available to all Duty Managers, Duty Officers and appropriate council staff.

The operational master station at the Control Room will act as the 'live' master station and an Emergency secondary station will be located at Roads and Grounds Services, Earls Road, Grangemouth.

22.0 Gritting Procedures

Action Assessments and Treatment Levels

Roads

Road conditions often vary considerably across the Falkirk Council Area with factors such as local topography, humidity, wind speed and direction, residual saline and traffic volumes all influencing the possibility of adverse conditions occurring. Some of the conditions that will require a response as follows: -

- Temperatures falling to zero with varying cloud cover conditions, humidity and residual saline on the roads.
- Frost or light snow forecast on dry roads.
- Frost forecast after rain.
- Freezing conditions coinciding with rain.
- Ice already formed on the road surfaces.
- Erratic temperature movements due to changing cloud cover
- Heavy snow falls.

Any of the above conditions can occur for varying periods, day or night, throughout the winter period and may affect all or part of the road and footway network. Essentially however, winter operations comprise the following forms of treatment: -

- Precautionary Salt Treatment.
- Treatment of Ice
- Treatment of Snow
-

These forms of treatment and guidance on the use of rock salt for the winter treatment of roads, including its value as an aid to ploughing operations, are set out the Appendices.

As previously stated the Duty Officer in consultation with the Duty Manager will assess the content of the weather forecasts supplemented by Icelert information, during weekdays and at the weekend. They will determine, based on the degree of certainty or otherwise of the predictions, what the course of action should be for the following overnight period.

This Action might be: -

- Evening pre-salt at a specific time
- An evening pre-grit "on hold" with call out based on subsequent weather, Icelert or Police information.
- Stand To at 05:00 hrs combined if necessary with either of the above.
- Stand To at 05:00 hrs for footpath teams.
- Duty Officer to monitor who will call supervisors if required.
- Supervisor stand-to where the Duty Supervisor check the routes at 04.00 hrs.
- No Planned Action

Footways

Footway is the term for the pedestrian walking surface or pavement adjacent to the road carriageway or relatively close to, and parallel with, the carriageway.

Footpath is the term for a pedestrian walking surface between or remote from roads.

Treatment of footways shall be carried out as soon as possible after snow or ice conditions occur. The aim shall be to ensure, where possible, that snow shall not become hard packed by the action of pedestrian traffic thus making clearance more difficult and less efficient. Appropriate treatment with salt shall be made following snow clearance to prevent subsequent freezing. As much as possible of the width of the footway shall be cleared maintaining clear paths at pedestrian crossing points and areas such as bus stops.

The service provided will be based largely on the importance of the footway as a pedestrian route both in terms of pedestrian volumes and the importance of the destination.

Footpaths & Cycleways

Footpaths will not normally be treated except where icy conditions last for several days. They will only then be treated if and when the Council has the capacity to do it.

Cycleways will be treated where they form part of the carriageway and will be treated in accordance with the priority for that road. Remote cycleways will not normally be treated except where icy conditions last for several days. They will only then be treated if and when the Council has the capacity to do it.

23.0 Snow Clearing

Snow shall be ploughed when the snow depths exceed, or might be expected to exceed, 30mm or where considered appropriate by the Duty Supervisor. Each pass of the plough shall be supplemented by salt spread at 20 to 40g/m².

Ploughing shall be used to remove snow not dispersed by traffic, where for example at night when light traffic is insufficient to cause dispersal. Also lighter falls of snow shall require ploughing where local drifting has occurred.

Where ploughing is not possible, for example in built up areas, the maximum salt spread for melting

up to 40mm of fresh snow at 0°C is 40g/m². Repeated applications can remove a heavy accumulation of snow and this shall be used where ploughing is impracticable. In exceptional circumstances, for example when the snow on the road is deep and cannot be removed by salting, when salting over packed snow is likely to provide an unacceptable surface, or when the traffic is insufficient to disperse the snow, consideration shall be given by the Duty Manager to the use of JCB/Tractors with the snow being directed into an accompanying lorry, or shed to the verge, followed as soon as possible by salt spreading at 20 to 40g/m².

Where there is a formation of hard packed snow and ice no more than 20mm thick and the air temperature is above minus 5°C, removal shall be achieved by using successive salt spreads at 20 to 40g/m². Below minus 10°C or where the snow or ice is more than 20mm thick, great care must be taken as the use of salt alone can result in an uneven and slippery surface.

Exceptionally in those circumstances, a single-sized abrasive aggregate of particle size up to 6mm, or 5mm sharp sand having low fines content shall be added as necessary to the salt. Reversion to salt only shall be made as soon as possible. Abrasives shall be considered as a supplement to the use of snowploughs in urban areas where salt alone would provide an unacceptably slippery surface.

When sustained low air temperatures occur after snow has fallen, then for each degree below minus 5°C, the amount of salt needed to maintain the equivalent melting effect increases by about 14g/m² to a maximum of 40g/m². Where traffic is reasonably heavy, little or no increase is needed until the air temperature falls below minus 10°C.

On elevated structures snow shall not be deposited off the carriageway onto the area below.

Spread rates are issued as a guide only for decision makers and may require to be varied subject to, but not exclusively to, the following: -

- Traffic Volumes.
- Intensity and duration of preceding rain showers causing salt was off.
- Run-off due to seepage
- Local meteorological idiosyncrasies.
- Residual salt levels
- Severity of the forecast snow event (snowfall intensity, snowfall duration and the likelihood of drifting).

When ploughing operations are to commence the Duty Officer shall advise the Police.

When prolonged falls of snow are forecast, ploughing shall be used continuously from the onset to prevent build-up and compaction by traffic. This shall be supplemented by simultaneous salting at 20 to 40g/m². Where snow depths reach 120mm, or when tackling drifts, or when vehicles are working on gradients, ploughing may be undertaken without salting so that the weight of the loaded vehicle may aid traction. Salting shall be resumed as soon as possible thereafter.

Snow clearance on footways shall be carried out by use of pedestrian plough / mini tractor ploughs / bobcats and / or hand clearance / spreading crews

Treatment of footways, footpaths and cycle ways shall be carried out as soon as possible after snow conditions occur. The aim shall be to ensure, where possible, that snow shall not become hard packed by the action of pedestrian traffic thus making clearance more difficult and less efficient.

Appropriate treatment with de-icing material shall be made following snow clearance to prevent subsequent freezing. As much as possible of the width of the footway, footpath and cycleway shall be cleared / treated maintaining clear paths at pedestrian crossing points and areas such as bus stops.

24.0 Other Emergencies and Procedures

General

While the provisions of this manual are specifically related to the Winter Maintenance Service, the procedures adopted out with this period are essentially similar and will vary only in relation to the number of staff involved and the communication arrangements.

Supervision and control of all emergency operations will be available on a 24 hr basis with local Supervisory Staff covering their Area during normal working hours – nominally 0900 hrs – 1700 hrs weekdays and Standby Supervisory staff available at all times outwith normal working hours. The Standby Duty Supervisors will be selected and rostered by Roads and Grounds Services managers from experienced operational / support personnel such that there will always be at least two Supervisors on Standby during the Winter Service. The Duty Supervisor(s) will direct, control, monitor and record operations in their Area(s) under the general guidance of the Duty Officer and Duty Manager where appropriate.

Additional Supervisory Staff will be detailed to support the Standby Supervisors as required, normally in situations when the degree of mobilisation is greater than normal e.g. deteriorating conditions.

If the Supervisor is unsure about any situation or requires further guidance at any time he should contact the Duty Manager.

Blood

Where a call comes from Police Scotland, Falkirk Council Contact Centre or the Duty Officer to remove human or animal blood from a Council maintained road, footway or paved area the Supervisor should, in the first instance, check the area concerned or liaise with the Emergency Services personnel at the locus.

The only way to remove blood is by using copious amounts of water to disperse it. Under no circumstances should a hose or spray be used to remove the blood from the road or footway surface. The use of Sand or Fibre should not be considered in this instance as there may be consequences with the disposal.

Protective clothing, gloves, goggles and masks **MUST** be used at all times when dealing with blood. It may be that protective clothing requires to be disposed of after the blood has been removed.

Roads and Grounds Services personnel will not be responsible for removing household items, such as mattresses, couches, tables etc from any property, Council or otherwise, especially where there is blood splatter or human waste on the items.

If these items are located on the carriageway, footway or road verge and require to be removed for safety reasons then great care should be taken and should only be handled by operatives using the correct PPE as detailed below.

The 2 squads on stand by will carry a Spill Kit which will contain the following items:

- 2 x Disposable suits
- 2 x sets of Overshoes
- 2 x sets of Gloves
- 2 x sets of Goggles
- 2 x Face masks
- 2 x packs of Grime Eez Max Hand & surface wipes (Arco)
- 2 x Clinical waste sacks
- 1 x Sharps Kit

Falkirk Council's Contact Centre should be contacted to establish who should remove contaminated waste, which must be bagged and tagged, to a secure incinerator.

This service can be arranged through Falkirk Council Emergency Control on 01324 506070

Trees

Where a call comes from Police Scotland, Falkirk Council Contact Centre, Duty Officer or a member of the public regarding the removal of a fallen tree or branch obstructing the carriageway or the footway the Supervisor should check and identify the problem.

If the tree requires to be removed then the Supervisor must try to establish who the owner of the land where the tree came from is. The Duty Officer or the Duty Manager may be able to help with to identify the owner of the land. Very few trees adjacent to the road are the responsibility of Falkirk Council.

The land owner should be given the option of removing the tree or arranging to have the tree removed within a reasonable timescale. If they do not wish to remove the tree the owner should be made aware that Roads and Grounds Services will remove the tree, however, they will be invoiced for the work.

If the fallen tree is of a size where it requires to be cut into sections then only operatives with an appropriate arbor qualification should be asked to carry out this work.

Any tree which maybe endangering property especially if there is likely to damage caused due to the removal of the tree then specialist contractors should be brought in to deal with the situation. The owner of the property will be responsible for contacting the contractors and all cost associated with this work.

If there is a safety issue Roads and Grounds Services may be required to install temporary traffic management, again all costs incurred will be invoiced to the owner of the property.

If the Supervisor is unsure about any situation or requires further guidance at any time he should contact the Roads and Grounds Manager or Duty Manager.

Small Animals

Where a call comes from Police Scotland, Falkirk Council Contact Centre, Duty Officer or a member of the public regarding the removal of a small animal, such as a cat, dog or small deer, the Supervisor should check and identify the problem in the first instance.

It may be that the Supervisor can deal with the situation on his/her own. If the owner of the animal cannot be found then it should be removed and disposed of accordingly.

These animals should only be brought in the depot as a last resort and if this occurs they should be disposed of at the first opportunity.

Large Animals

Where a call comes from Police Scotland, Falkirk Council Contact Centre, Duty Officer or a member of the public regarding the removal of a large animal, such as a horse, cow or large deer, the Supervisor should check and identify the nature of the problem in the first instance.

In the first instance the Supervisor should try and identify the owner of the animal as they may wish to arrange disposal for themselves.

If the owner of the animal is located and they do not wish to arrange disposal they should be made aware that they will be responsible for the total cost of the removal.

If the owner cannot be located and the animal has to be removed or if the owner wishes for Falkirk

Council to remove it then the Supervisor should contact the local Slaughterer as detailed in the contacts section and arrange for removal.

Motorways & Trunk Roads

The Motorways (M80, M876 and M9) and Trunk Roads (A876) are the responsibility of Amey Highways to maintain.

As such, Roads and Grounds Services personnel will not respond to any callouts for work or emergency situations on motorways (M9/M80/M876) or trunk roads (A876 Kincardine Bridge).

Calls should be directed to Transport Scotland or Amey Highways, either by Falkirk Council Emergency Control, Duty Officer or by the caller themselves.

If there is any dubiety over the location or what may be required then the Duty Supervisor must attend to check.

The Duty Officer or Duty Supervisor MUST seek permission from the Roads and Grounds Manager or Duty Manager to carry out any work on the Motorway or Trunk Road network or on behalf of the Trunk Road Contractor.

25.0 Publicity

Public Relations

All staff of Falkirk Council and anyone speaking on their behalf will conduct all winter communications with members of the public or any others in a completely non-aggressive manner and be as helpful as possible. On no account will abusive language or expletives be used irrespective of provocation. When members of the public do make contact they are often in a highly emotional state, but if they become aggressive or continually use expletives, they should be politely advised that they should, contact The Duty Manager or desist. After giving this advice, one warning that the member of staff is going to leave or hang-up as appropriate if there is no improvement then that action is implemented. Staff will record the incident in the Duty Officer or Duty Supervisor Log as soon as possible in their own interest.

Great care must be exercised in making any comment as an incautious comment can be referred to in claims and litigation. It would be preferable for operational staff to refer any person to the Duty Manager.

No member of staff should discuss matters with the press. Any callers should be referred to the Director/Head of Service or Press Office in accordance with the Council's policy and instructions.

For the above reasons, Police Scotland should be asked not to make comment to motorists even in the extremely frustrating situation of attendance at an accident location when they have previously reported problems.

No member of staff or anyone speaking on their behalf should respond to a complaint by saying something to the effect that "they will see what can be done" or "they will pass it to the Duty Supervisor" when they are aware that the matter falls out with the Policy the Priority currently being worked on. Such phrases are sometimes used to let the complainant "down gently" and/or to avert wrath from the member of staff. The true position should be politely explained and no matter should be passed to the Duty Supervisor on which he/she requires to make a judgement on Policy or on which he will take no action.

Publicity leaflets giving information on road and footway gritting priorities, as shown will, be placed at council buildings, one stop shops, libraries etc.

Information will also be posted on the Falkirk Council Web site – www.falkirk.gov.uk - this will include information on gritting routes, the priority treatment of roads and how this is established. Information regarding weather and gritter tasking will also be available at this location.

An advert will be placed in the local press and the Falkirk Council News outlining the service provided.

26.0 Plant and Equipment

Staff Resources

In order to satisfy the contractual and policy requirements established for the provision of the Winter Service Plan throughout the council area, the Roads and Grounds Manager will deploy, as required, all necessary professional, technical, supervisory and administration staff under his control.

Manpower Resources

Development Services will provide all labour required for the implementation of the Winter Service Plan, but, may be supported by personnel from other Falkirk Council Services as required. During particularly severe conditions, private contractors may be utilised. All operatives used in the operation of the Winter Service spreading equipment will be experienced employees.

Vehicles, Plant and Equipment

A review of the Winter Service vehicle, plant and equipment requirements i.e. numbers, type capacity is carried out annually, by the Roads and Grounds Manager or his staff. The overall complement of equipment determined in relation to planned operational requirements / area of operation, reflecting the relative merits of dedicated, interchangeable and demountable equipment.

All spreading vehicles used by Roads and Grounds Services shall: -

- Be fitted with spreading equipment that complies with BS 1622 Class A1.
- Be equipped with snow ploughing attachment.

All Winter Service vehicles, plant and items of equipment will, in addition to the prescribed plant / vehicle maintenance programme carried out by Fleet Services, be thoroughly checked by roads personnel to ensure they are in proper working order and that all ancillary equipment items, e.g. snowploughs, demountable gritter bodies, etc. are compatible with their prime mover and can be fitted without difficulty.

The effective and reliable performance of all Winter Service vehicles, plant and equipment is crucial. Fleet Services will ensure that throughout the winter period, all items are regularly checked and that routine maintenance and performance checks are carried out in accordance with approved schedules. As a general requirement all permanently mounted gritters (PMG) will be checked and road tested regularly. All demountable gritters (QCB) will be similarly be checked regularly, whether in use or not, by the Drivers. All equipment will be cleaned thoroughly after every period of use to prevent the buildup of salt in or on any part of the machinery.

A daily update on the state of serviceability of all “front line” equipment will be carried out, by the Duty Supervisor, and any shortfall made good with demountable / hired equipment as necessary.

Fleet Services will carry out ongoing discharge performance checks on all operational spreaders. Each division will be issued with an “Estimated Rate of Spread” chart for the Priority 1 network in that division. The use of this chart and the feedback of estimated rates of spread to drivers on receipt of estimate tonnage of salt used after completing a continuous grit of their Priority 1 route, will familiarise both staff and drivers with spread rates in grammes per square metre, confirm control settings and

achieve economy in the use of rock salt. This information will be recorded in the Duty Supervisors daily report.

Fleet Services at Dalgrain, Grangemouth will operate a 24hr standby service for the repair and maintenance of all gritting equipment throughout the Winter Period. Contact is through Emergency Control.

Hired Plant and Vehicles

We have one framework contract which is for the 'the short term hire of operated plant'.

Fuel Supplies

Fleet Services will ensure that adequate stocks of fuel are maintained at depots and other operational establishments. Appropriate arrangements will be made to ensure the availability of fuel out with normal working hours. Supplies of Derv and Gas Oil at these locations will be to an appropriate winter grade specification or will have been suitably modified by the addition of an appropriate percentage of anti-waxing additives. During periods of very low ambient temperatures, additional additives may be used with winter grade fuel to further reduce the waxing point. Operatives will be required to ensure during refueling stops, particularly at private garages, that all fuel draw is suitable.

Communications - General

The Appendices to this manual contain comprehensive registers of important Telephone Numbers that will be required in the performance of the Winter Service. These include: -

- Winter Maintenance Duty Staff.
- Development Services (Roads) Personnel.
- Falkirk Council Offices and Depots.
- Adjoining Local Authority Personnel and External Organisations.
- Police Scotland.
- Private Contracting Organisations – Vehicle and Plant Hire.

Telephone Systems

Roads and Grounds Services will equip all gritter drivers involved in Winter Service operations with mobile telephones.

The mobile telephone system is recognised as an essential tool to the efficient and effective management of the Winter Service. In addition, it is valuable information source and will often be required during the winter period to transmit information of an urgent and emergency nature. All personnel will be required to ensure that use of the mobile telephone system is restricted to a level consistent with the efficient organisation of the service and that telephone discipline is maintained at all times.

The Appendices to this plan contain relevant information on current mobile telephone numbers.



Falkirk Council
Development Services