

# WINTER GRITTING & SNOW CLEARING 2017/18

Fife Council's Operational Plan &  
Guide for Winter Service Delivery



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## 1. POLICY

Fife Council has a statutory responsibility, under 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. ('Roads' include carriageways, car parks, footways, cycleways and pedestrian areas).

The **Winter Gritting and Snow Clearing Operational Plan** is the means by which Fife Council seeks to provide an effective and efficient winter gritting and snow clearing service, to negate the effects of bad weather and road conditions which have the potential of causing delays posing hazards for all road users and impacting on the economic well being of the area.

Winter gritting and snow clearing involves treating roads in order to: -

- prevent ice from forming (pre-salting)
- melt ice and snow (post-salting)
- remove snow (ploughing)

Decisions on whether or not to act must be taken with due care and on reasonable grounds. The object is to provide a winter gritting and snow clearing service which will, as far as is reasonably practical, within financial constraints and resource limitations: -

- permit the safe movement of vehicles and pedestrians on the more important parts of the network
- seek to minimise delays and accidents attributable to weather conditions
- minimise the impact to people's daily lives and the economy

The detailed Winter Policy Statement is available on [www.fifedirect.org.uk](http://www.fifedirect.org.uk) and entering 'gritting' in the search facility.

## 2. RESPONSIBILITIES

Fife Council will operate and deliver a full and comprehensive winter service which will include:-

- A flexible service designed to cater for a typical winter with the ability to respond to periods of severe weather.
- Production and distribution of the **Winter Gritting and Snow clearing Operational Plan** together with process charts and diagrams to assist and provide guidance to nominated staff.
- Providing, maintaining and categorising a list of roads, footways, car parks and pedestrian areas for salting treatment and snow clearing.
- Organising and implementing a full weather prediction system including weather forecasts, reports and graphs available for analysis throughout the winter period.



- Monitoring the "ice prediction" forecasts, road surface temperatures, road and weather conditions to assess the need to carry out pre salting or post salting treatment or snow clearance on the road network (and footways or cycle paths); deciding appropriate start times and spread rates, and keeping records; monitoring and amending instructions as and when prevailing weather conditions change and liaising with the Weather Forecaster as and when required.

- Directing all salting and snow clearing resources at their disposal.
- Delivering the most effective, efficient and economical service, including establishing operational priorities during extreme or prolonged severe weather conditions.
- Facilitating specialist vehicles and equipment for use throughout the winter period.
- Arranging adequate supplies of salt to be available at the beginning of the winter period; directing the appropriate use of salt resources; and subsequently monitoring and reporting salt usage and maintaining adequate stock levels in accordance with predetermined resilience levels.
- Establishing and Maintaining Emergency Service contact numbers, Trunk Road Contacts and Fife Council Contact Centre contacts and liaising with Emergency Services as and when required.
- Reporting on road conditions to the Council's Communications Team to allow the dissemination of information to local media or general public as appropriate. In the event of severe and deteriorating conditions all elected members, relevant emergency services, public transport operators and local media will be advised on a continual basis.
- Monitoring all aspects of the winter service and providing information on performance indicators for the service and providing detailed records of all relevant activities.
- Maintaining a list of contractors/ farmers with suitable plant for snow clearing and hiring plant and equipment as conditions dictate.
- Maintaining the snow clearing fleet, repairing faults without delay and checking and calibrating salt spreading

equipment to operational standard.

- Maintaining a full and comprehensive record of all winter service activities.
- Provision of adequate training to all winter maintenance Operatives.

### 3. DECISION MAKING

The winter period will normally commence at the beginning of November and will conclude at the beginning of April.

During the winter period Transportation and Environmental Services will operate a 24 hour winter service using **MET OFFICE** weather forecasts, road and weather monitoring data. One duty officer will provide 24 hour cover for all winter related issues and decision making.

Although this is a “singular” role the duty officer comprises the following “component” roles.

Role	Period of Duty
Winter Manager	On duty 24 hours
Nightshift Officer	23:00 - 08:00 for all shifts

#### Winter Manager

The **Winter Manager** is responsible for the daily co-ordination of winter services across Fife and is pivotal to the delivery of an effective gritting and snow clearing service.

The **Winter Manager’s** role is held by designated, experienced and competent staff.

Given the responsibilities of the **Winter Manager** the designated officers will be trained and experienced officers capable of fulfilling this role.

The duties of the **Winter Manager** are summarised as follows: -

- Interpret forecast information, compare actual temperatures and conditions against those forecast to reach a decision on action for the next 24 hours.



- When severe weather is forecast the **Winter Manager** will assess the severity and likelihood and when appropriate trigger the response action plan.
- Issue instructions to the relevant **Standby Supervisors** to instigate appropriate winter service actions and prepare the proposed action plan and distribute to all relevant parties.
- Be responsible for maintaining a record of instructions issued, actions taken, and telephone calls received etc., and for liaising / consulting with the Weather Forecaster in regard to current and forecast weather conditions.
- Liaise / consult with relevant external bodies (e.g. FETA, Emergency Services, Trunk Road Operating Companies etc.) in regard to current/forecast weather and road conditions and proposed Fife Council action as appropriate.
- Prepare and distribute relevant media / public information i.e. Metro Network, AA Roadwatch, Fife Direct etc.
- Liaise / consult with **Nightshift Officer** to ensure the knowledge of any winter service actions taken / ongoing / pending, current and/or expected weather conditions etc. is retained within the workplace i.e. briefing/de-briefing sessions as required.

## Nightshift Officer

Together with the **Winter Manager**, the **Nightshift Officer** forms part of the 24 hour monitoring regime in operation during the winter period.

### The duties of the Nightshift Officer are: -

- To monitor weather / road conditions within Fife, for relevance to the proposed action plans initiated by the **Winter Manager** and amend action plans as and when required.
- To liaise with the Weather Forecaster and issue changes or new action plans to the relevant Standby Supervisors.
- Liaise with Fife Council Contact Centre and relevant external bodies, Emergency Services, etc. in regard to current / forecast weather conditions and proposed Fife Council action as appropriate.

In addition to the above, in the event of severe weather, the **Nightshift Officer** must also issue a 07:30 hrs report on the state of the road network. During periods of prolonged severe weather the **Nightshift Officer** may also, be required to instruct footway clearance works to commence.

## Standby Supervisors

Each of the 3 Areas has a **Standby Supervisor** on duty for 24 hours, 7 days a week.

The **Standby Supervisor** is responsible for carrying out the instruction(s) given by the **Winter Manager** or **Nightshift Officer**. Once in receipt of instruction(s) the **Standby Supervisor** will organise, arrange, allocate and control the necessary resources to fulfil the instruction(s) issued and advise when operations have commenced and are completed.

Details of actual action taken including salt tonnages used are reported to both the **Winter Manager** and **Nightshift Officer** on a daily basis.

A dialogue is maintained with the **Winter Manager** and / or **Nightshift Officer** and the **Standby Supervisors** during “out of hours” winter service activities.

#### 4. SUPPORT SERVICE

The Roads Operations Support Team will provide a support service to the Area maintenance operations Teams in regard to winter service activities. This support service includes the following: -

- The management and maintenance of the road weather information system(s).
- Arrangements for the provision of a weather forecasting service and the co-ordination/liaison with the forecast provider in regard to service provision.
- The preparation, update, co-ordination and control of the Winter Gritting and Snow Clearing Operational Plan.
- Provision and maintenance of a winter action plan database for use by the **Winter Manager** and **Nightshift Officer**.
- Issues relating to winter service training, fleet procurement and management and materials.
- Co-ordination of tenders for the procurement of salt and the ordering of salt to pre-determined stock levels.

#### 5. WINTER ACTIONS

##### Proposed Actions

The **Winter Manager** after consulting all information available will issue one of the following planned action instructions to the **Standby Supervisor**:

- Pre salting to commence immediately
- Pre salting to commence at a specific time

- Treatment is likely but a start time is yet to be determined
- Treatment is possible but conditions (marginal) will continued to be monitored
- No planned action is required
- Efforts will be made to ensure that salt is spread, whenever possible prior to the formation of ice or the settling of new snow on the road network.

##### Levels of Readiness

When the **Winter Manager** has assessed that the mid to long term forecast is likely to result in severe weather the relevant severe weather trigger will be implemented:

##### GREEN

‘Normal’ monitoring and action conditions apply: when sub zero temperatures are forecast over no more than 4 days to be followed by a thaw, and require daily standard action of 10 or 20grm/sq.m pre-grits on **Primary Routes**. Only staff and workforce whose normal duties include winter action, monitoring and supervision are involved.

##### AMBER

Extended monitoring and action conditions apply: when prolonged freezing conditions, 5-10 days, or snowfall is forecast. Additional staff will be allocated duties to handle extended reporting systems etc; workforce participation will be extended as appropriate; other Services will be notified for assistance as required, Emergency Planning, Building and Environmental Services (PSOS, Waste Operations and Building Services) and Emergency Services. State of readiness checked regarding plant and equipment. Inspect and replenish grit bins where appropriate.



## RED

Full monitoring and action conditions apply. Severe and continued snowfall endangers the continuity of the infrastructure. As 'Amber' plus assessment for Activation and Escalation of Assets, Transportation and Environment Services Business Continuity Plan including Contact with Council Emergency Planning Officer, Control Rooms set up and full reporting systems in place, including daily status reports to members, Contact Centre, emergency services and appropriate Council Services.

## 6. ORGANISATIONAL ARRANGEMENTS AND PERSONNEL

It is the responsibility of the **Standby Supervisor** to organise the workforce detailed for winter duties in such a way as to carry out winter gritting & snow clearing duties in a safe and efficient manner.

All personnel involved in the Winter Service are acquainted with the duties, responsibilities and health and safety procedures necessary for them to carry out their tasks in an efficient and effective manner.

Special arrangements are made annually to ensure the availability of trained operatives and supervisory staff for the winter period.

Working schedules for 24 hr periods of cover are detailed at the beginning of the

winter period and are run and maintained continuously throughout.

Drivers and loaders are on 24 hr standby, 7 days a week for the 21 weeks of the winter period including reserve drivers required under EU Driving Regulations.

This is a total of 28 employees per week across Fife.

## 7. VEHICLES AND PLANT

Transportation an Environmental Services pre-salts and clears snow and ice from public roads using a well maintained fleet of vehicles as follows:

- 25 large gritters with snow ploughs
- 5 medium gritters with snow ploughs for narrow residential roads
- 11 small de-mount gritters on pickups
- 19 additional vehicles designed to clear slush

All winter service vehicles are fitted with full telematics system for the purpose of improving service delivery including:

- vehicle location and speed at all times
- improved safety and security for employees
- immediate positioning of vehicles in response to emergency situations, vehicle movement and thereby the number of vehicles required



- vehicle usage and routes recorded
- winter service activity e.g. gritter spread rate, spread width and ploughing
- road surface temperature sensors on Supervisor patrol vehicles, giving instant data feedback to Winter Officers

Pre-winter checks and calibration of all vehicles, plant and equipment used for winter service is carried out by Fleet Services in readiness for the winter period. Further servicing and calibration is carried out at intervals throughout the winter.

## Footways

The clearing and gritting of footpaths is carried out by Parks, Streets and Open Spaces using a well maintained fleet of 34 mini tractors complete with spreaders and ploughs. This treatment is normally confined to snow clearing.

## 8. TREATMENTS AND PRIORITIES

### Roads - Priorities

All roads on the Council's List of Public Roads network are treated as follows: -

#### Primary Routes

- Fife Council's designated Strategic and Traffic Sensitive routes. Principal roads (A Class roads). Roads leading to hospitals, ambulance stations, fire stations and power stations. Slip road approaches to interchanges, classified registered urban bus routes, access to bus stations and railway stations.
- Classified roads (B Class). Unclassified registered urban and school bus routes. Important commuter routes. Access to important industrial and military establishments. Known trouble spots.
- There are 24 Primary Gritting Routes, 8 in Mid Fife, 8 in South and 8 in North. These amount to 59% of the Fife Road Network and are detailed on fifedirect.

## Snow Routes

- During exceptionally severe weather the Council will treat designated **Snow Routes** as a first priority. They are designated strategic and traffic sensitive routes, Principal Roads (A class), roads leading to hospitals, ambulance stations, fire stations, Mossmorran to Braefoot Bay Access on A921, slip road approaches on A92, classified registered urban bus routes, access to bus and railway stations. Resources will be concentrated on the **Snow Routes** to ensure essential communication links are maintained.

These routes amount to 37% of the Fife Road network and are detailed on Fifedirect.

Other **Primary Routes** will be treated for snow, in extreme conditions, once Snow Routes have been attended too.

## Secondary Routes

- Other commuter routes, main feeder routes, shopping centres, access to isolated villages and hamlets together with main food supply routes.

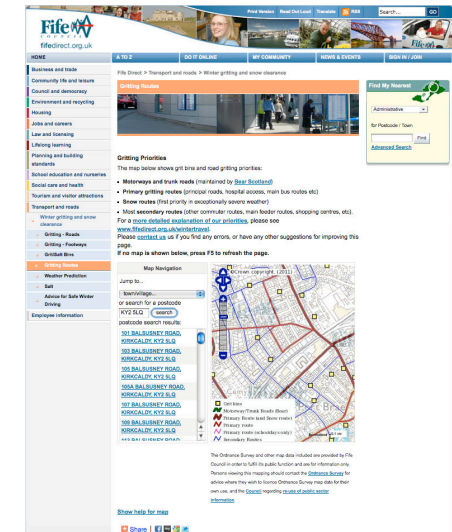
## All Other Routes

- Roads serving limited numbers of properties carrying access traffic, (residential loop roads and cul-de-sacs) including unadopted roads and roads subject to construction consents not yet added to the Council's List of Public Roads but along which properties are occupied.

Motorways and Trunk Roads as defined by the Scottish Government within the boundary of Fife are the operating responsibility of AMEY and BEAR (Scotland) Ltd.



For Gritting Routes on the fifiedirect website go to [www.fifiedirect.org.uk](http://www.fifiedirect.org.uk) and enter “Gritting” in the search facility.



## Roads - Standards

**Primary Routes** are given a 24 hour service for the pre-salting and clearance of snow and ice formation with standby crews operating during the core winter period of the nearest Friday to the beginning of November to the last Friday in March. Pre-salting treatment is given whenever judged appropriate.

It is expected that all **Primary Routes** will be treated within 3 hours of operations starting.

Unless they happen to coincide with the public bus network, school bus routes will not be treated at weekends, in-service days or on holidays. Treatment will recommence at midday on the day prior to returning i.e., midday Sunday for a return on a Monday.

**Secondary Routes and All Other Routes** may be treated for ice and snow in order of priority once **Primary Routes** have been satisfactorily attended to and subject to available resources. Treatment

of ice formation will only be undertaken in exceptional circumstances of thick and persistent frost lasting for several days.

However should conditions be such that a continuous treatment of **Primary Routes** is necessary to allow free movement of traffic, then **Secondary Routes** will be treated concurrently with **Primary Routes**.

Treatment of **Secondary and All Other Routes** will not take place outwith the normal working weekday (Mon – Thurs 0730 to 1600hrs, Fri 07:30 – 15:00) other than in exceptional circumstances where: -

- widespread snow conditions exist
- equipment and manpower resources permit
- the requirements of **Primary Routes** have been met

It is the intention that **Secondary Routes** should not remain impassable to heavy vehicular traffic for more than 48 hours.

**All Other Routes** will only be attended to once all other priorities have been treated. However, in practical terms, these routes are generally most effectively treated on a street by street and area by area basis as there may be little differentiation between lower priorities, particularly in urban conurbations.

Excessive use of salt and grit is detrimental to the environment and the ‘Well Maintained Highways’ Code of Practice provides guidance on treatments for different scenarios that Fife and other member Councils of the Edinburgh, Lothians, Borders and Fife (ELBF) will adopt.

## Precautionary Treatment for Frost / Ice

When it has been forecast that frost conditions may result, the following typical treatment rates (RST - Road Surface Treatments):

- RST at or above -2 °C and dry or damp road conditions at (10grm/sqm)
- RST at or above -2°C and wet road conditions (10grm/sqm)
- RST below -2°C and above -5°C and dry or damp road conditions (10 or 20grms/sqm)
- RST below -2°C and above -5°C and wet road conditions (20grms/sqm)
- RST at or below -5°C and above -10°C and dry or damp road conditions (10 or 20grms/sqm)
- RST at or below -5°C and above -10°C and wet road conditions (20grms/sqm)
- Post salting at 20grm/sqm for ice conditions
- Pre-salting at 20 to 30 grm/sqm for treatment when snow forecast
- Post salting and grit mixture at 40grm/sqm for hard packed snow and ice.

**Snow clearing operations will be carried out across the network as conditions and resources dictate.**

## Salt Conservation Procedures

Salt resilience stock levels have been determined to cope with a severe winter. However in the event that the weather pattern has been so extreme and combined with a national salt crisis that has impacted on Fife's stock levels, the following good practice guidelines for salt conservation will be applied.

- Reduce salt spread rates as appropriate.

- Restrict salt spreading service to **Primary Routes only.**
- Move to using salt / grit mixes on **All Other Routes.**
- Replenish grit bins and heaps with grit only, rather than mixture.
- Review priorities for footway and cycleway treatment.

These measures will only likely be taken when severe weather has seriously impacted salt reserves, prolonged severe weather is likely to continue and Scotland or UK wide measures have been implemented.

## Footways – Priorities

Footways on the Council's List of Public Roads network are classified as follows: -

- **Priority 1:** Main town shopping areas and around centres of high pedestrian usage e.g. pedestrian precincts, hospitals, clinics, main access routes to schools, sheltered housing, residential homes and day centres for the elderly.
- **Priority 1P:** Main pedestrian routes linking transport interchanges – railways, bus stations etc.
- **Priority 2:** Busy urban areas e.g. other shopping centres and around public buildings and other commercial areas not included within priority 1 and priority 1P. Main pedestrian routes in major housing developments
- **Priority 3:** Rural and less used urban footways. Un-adopted footways and/or footways subject to construction consents.

## Footways – Standards

There are over 2200km of footways in Fife and it is not possible to treat all footways simultaneously. Subsequently it is important that the priorities are strictly adhered to. Standby crews will be provided for **Priority 1** footways at weekends and on public holidays from the Saturday nearest the

beginning of December until the Sunday nearest the end of February.

The treatment of footways will usually be confined to the removal of snow deposits. However, footways adjacent to **Primary Routes**, will gain some “collateral” benefit from the 24hr coverage for salting treatment to these carriageways. In exceptional circumstances e.g. where thick and persistent frost exists (24-48 hours) and is expected to continue, salting treatment may be undertaken on footways in priority order and where resources permit.



For maximum effectiveness and network coverage within available resources, the normal approach to carriageways with two footways will be to clear at least one footway before moving on to lower priorities. Treatment of **Priority 1** footways will usually be restricted to normal working hours (07:30 - 16:00 hrs) with schools and clinics only treated Monday to Friday excluding public holidays. **Priority 2 and 3** footways will usually be restricted to the normal working hours Monday to Friday.

In addition to the above, **Priority 1P** footways providing access to key transport hubs will be given pre-salting treatment whenever considered appropriate by the **Winter Manager**, normally when persistent frost (24 - 48 hours), or snow conditions, have been forecast.

## Car Parks – Priorities

Car parks within Fife are classified as follows:

- **Primary:** Fee paying, railway station and Park and Ride car parks.
- **Secondary:** Non-fee paying car parks and other town centre car parks.
- **Other:** Other car parks.

## Car Parks – Standards

**Primary Car Parks** are included in the **Primary Routes** for roads, apart from those that have particular access difficulties for bulk gritters. These car parks with access problems will operationally be treated as per **All Other Routes**. Consequently treatment of all accessible **Primary Car Parks** will be consistent with that of **Primary Routes**.

**Secondary and Other Car Parks** may be treated for ice and snow in order of importance once **Primary Car Parks** have been satisfactorily attended to and subject to available resources. Treatment of ice formation will only be undertaken in exceptional circumstances of thick and persistent frost lasting for several days. Pre-salting of **Secondary and Other Car Parks** will not be undertaken. Treatment will not usually take place outwith the normal working weekday other than in exceptional circumstances where: -

- widespread snow conditions exist, or
- equipment and manpower resources permit,
- the requirements of **Primary Routes** have been met

## Cycle ways – Priorities

Cycle ways in Fife are classified as follows:-

- **Priority 1:** Cycle lane forming part of a carriageway and cycle gaps at road closure points (exemptions for cycle access)
- **Priority 1P:** Cycle ways linking main transport interchanges – railways, bus stations etc.

- **Priority 2:** Surfaced cycle ways shared with pedestrians, either segregated by a white line or other physical segregation, or not
- **Priority 3:** Surfaced cycle only routes
- **Priority 4:** Cycle trails, leisure routes through open spaces, not necessarily the responsibility of the roads authority

### Cycle ways – Standards

**Priority 1** cycle ways will be treated to the same standard as the carriageway they are part of for pre-salting and treatment of ice formations. Treatment of snow will be to the same standard as the carriageway it shares. In addition, **Priority 1P** cycle ways will be given pre-salting treatment whenever considered appropriate by the **Winter Manager**, normally when persistent frost (24-48 hours), or snow conditions, h00ave been forecast, and treated to address ice formations and snow.

**Priority 2** cycle ways will be treated to the same standard as the footway priority it shares.

**Priority 2 and 3** cycle ways may be treated for ice and snow in order of priority subject to available resources. Treatment of ice formation will only be undertaken in exceptional circumstances of thick and persistent frost lasting for several days. Pre-salting of **Priority 2 and 3** cycle ways will not be undertaken. Treatment will not take place outwith the normal working weekday other than in exceptional circumstances where: -

- widespread snow conditions exist
- equipment and manpower resources permit,
- the requirements of **Priority 1 and 2** cycleways have been met

## 9. SALT

### Storage

Salt is stored at the three Operational Roads Depots and at Bankhead South:

North Fife (Cupar)	Salt Barns
South Fife (Milesmark)	External Storage
Bankhead	Salt Barns



### Supplies

A contract with Scotland Excel is in place for the bulk supply of salt.

Salt stocks are replenished in the summer months to pre-determined levels. These levels incorporate a salt resilience of 40 days treatments under severe weather conditions, equivalent to 24,000 tonnes.

For 2017/18 the salt stock for the start of the winter season is 21,232 tonnes with a further 3,000 tonne mid season restock.

Winter conditions are becoming more unpredictable every year and as such the stock holding and level of resilience is kept under constant review.

## Stock Management

A weighbridge system is in place at the depots for stock control and salt usage recording.

Salt usage is reported daily and recorded by the Winter Operational staff directly onto the Winter Service Operational database. Additionally the Operational Depots will supply weekly reports on salt usage. The Roads Operations Commercial Team will make requests for salt stock refills as necessary to maintain stock at a predetermined level. Supply is continually and closely monitored.

Small one-off supplies of salt may be available on request, and on a strictly rechargeable basis, to the Emergency Services and internal Fife Council customers only.

## Testing

Salt for use on roads during winter will be to the requirements of BS3247 Salt for Spreading on highways for winter maintenance.

## Loading arrangements

Each depot is responsible for ensuring a loading shovel is available for loading vehicles on a 24/7 basis.

## Treatment

All vehicles are regularly calibrated to ensure roads are effectively treated and they will generally travel in the left hand lane with a spreading pattern to cover the full width of the carriageway.

### 10. GRIT BINS

Grit bins are located to assist our local communities (on a self-help basis) on minor housing estate roads and footpaths which are not on Primary Routes or Priority 1 and 2 footways. Grit bins are also located at known trouble spots, including steep gradients and sharp bends.

Fife has a very high level of service for grit bins with 4,109 located across Fife. For the location of Grit Bins go to [www.fifedirect.org.uk](http://www.fifedirect.org.uk) and enter "Grit/Salt Bins" in the search facility.

To comply with the current budget envelope the allocation of grit bins has been capped and is under review.



*Salt storage facility at Bankhead South*



Usage of bins is actively monitored with any unused/underutilised bins removed and/or reallocated. Any requests for new bins in 2017/18 can only be met by the relocation of lesser used/lower priority bins on a ward basis in liaison with local councillors.

In new housing developments grit bins are to be provided by the Developer through the Construction Consent process.

Grit bins remain in position throughout the year, apart from at locations of high vandalism or nuisance, where they are removed during the non-winter months or re-located in consultation with local councillors. At identified tourist amenity areas environmentally friendly coloured bins will be provided.

Grit bins are replenished on an ad-hoc basis periodically throughout the course of the winter season e.g. customer request. Specific requests for refilling will be actioned normally within 5 working days. Grit bins are filled with a 1:3 mixture of salt and sand/grit.

### Grit Heaps

During extended severe weather conditions, the Winter Manager will provide Grit Heaps (subject to available resources) as requested by elected members or representatives of Community Councils. These will only be to support a local body such as Community Council in seeking to play a facilitating role for local community efforts on minor roads and footways that have not yet been treated. To improve the issue, delivery and site management of the Grit Heap these will be issued in 1 tonne builder's sacks to agreed locations.

## 11. QUALITY & PERFORMANCE MONITORING

### Winter Preparation

A winter review group meets regularly to review, assess and implement any revisions to winter operations during the winter period.

In an effort to continually improve the level of service provided this group assesses all working practices, procedures and policies. Typical areas considered are:

- Route efficiency, coverage and fleet capacity.
- Number of compliments, complaints and claims.
- Adequacy and timing of weather forecasts.
- Completion of routes within 3 hour period.

Recommendations resulting from this review are implemented as appropriate and can lead to changes in operational practice or winter policy.

## 12. CONSULTATION

Transportation and Environmental Services will periodically consult on the Winter Gritting and Snow Cleaning Policy and Operational Plan in addition to undertaking an annual review process aimed at identifying possible revisions to the winter service.

Those consulted will include: -

- Elected members
- The travelling public and residents of Fife
- Community Councils, Community Groups, Disability Groups etc.

- Fife Council Services
- Emergency Services i.e. Police, Fire and Ambulance Services
- Road User Groups e.g. AA, RAC, Freight Transport Association etc.
- Businesses and Supplier's

### 13. BUDGETARY PROVISION

The severity of any winter is unpredictable and subsequently it is not possible to know the budget requirements in advance with absolute confidence. However Transportation and Environmental Services is able to access extensive historical information which is taken into account during the budgeting process. For 2017/18 a budget of £3.008m is in place.

Dealing with a concentrated period of snow can be costly and subsequently may be perceived as a severe winter. However a period of prolonged marginal temperatures and wet conditions necessitating frequent and repeated pre-salting actions can also be very costly. During such periods of repeated pre-salting the extensive scale of operations may not always be readily apparent. The total winter costs in any year comprise both set-up and variable elements.

Set-up costs include the provision and supervision of facilities and standby personnel including labour, plant, vehicles and equipment.

Variable costs include salt tonnages, pre-salting, patrols, inspections, grit bin placement and recovery, servicing/upkeep of grit bins, emergency salting and snow clearing in addition to any specific winter maintenance activities arising a result of winter weather conditions. Set-up costs can account for almost 50%

of total winter costs; however the final cost for winter gritting and snow clearing is determined by the severity of any winter season, the effect of which will always be reflected in the total sum of the variable costs incurred.

### 14. ROAD WEATHER INFORMATION SYSTEM (RWIS)

#### System Overview



The road weather information system is a bureau service through which actual conditions are monitored and forecast information is received and transmitted. The core of the system is provided by Vaisala Ltd which manages all winter forecasting and outstation information relevant to Fife Council. Information can be accessed from any Internet enabled PC.

The RWIS also comprises 9 "remote" outstations (4 of which are forecast sites) allowing real time data to be captured and disseminated via the bureau system. In addition, as part of a reciprocal arrangement with neighbouring authorities/bodies, information is available for view from a further 7 outstations.

Fife Council Outstations are located as follows:

- **A907 Bogside (forecast and camera image)**
- **A914 Clushford Toll**
- **A91 Corston (forecast and camera image)**
- **B9157 Cullaloe**
- **A919 Guardbridge (forecast and camera image)**

- **B921 Harestane**
- **B913 Kelty (forecast and camera image)**
- **A915 Lathones (camera image)**
- **A916 Letham Feus (camera image)**

Over the nine weather stations a variety of sensors are installed providing data pertaining to –

- Surface and deep road temperature
- Air temperature
- Wind and speed direction
- Relative humidity
- Precipitation
- Surface state (weather condition on road surface including the level of salt present).
- In addition to the weather station, patrol vehicles with road surface temperature sensors

## System Operations

The Bureau System is the means by which forecasters gather real time data and broadcast the forecast information. The bureau provides the central hub of the system undertaking the following tasks:

- Collection of actual condition data
- Broadcast of actual condition data
- Receipt (from forecaster) of forecast information
- Broadcast of forecast information
- Automatic polling and condition updates of all outstations
- Data archiving

In addition the bureau allows the forecaster 24 hour access to current and historical outstation data.

## Maintenance of Outstations and Forecasting System

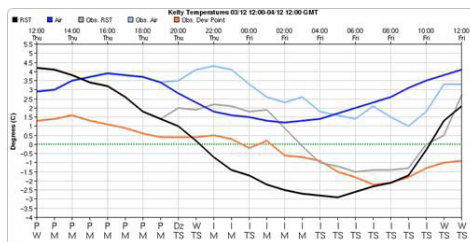
As part of the RWIS contract arrangements, calibration and maintenance of all outstations is carried out on a regular basis.

### 15. WEATHER FORECASTING

As part of a joint procurement arrangement with (Aberdeen, Aberdeenshire, Moray, Perth & Kinross, Angus and Dundee Councils) Fife Council has contracted the MET OFFICE to supply daily forecasts for the period 1st October – 30th April (incl).

### Forecast Provision

The Forecast provider for the winter season will make the following information available via the bureau service provider the following information:

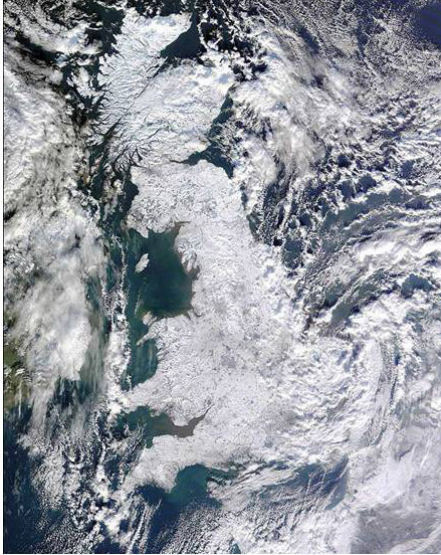


- Preliminary “text only” morning forecast (received no later than 08:00 hrs each day)
- 2-5 day text forecast (received no later than 13:00hrs each day)
- 24 hour text forecast (received no later than 13:00hrs each day)
- Site specific forecasts (received no later than 13:00hrs each day)
- Updates to forecast information should conditions change etc.
- 24 hour consultancy (via telephone i.e. duty forecaster)

## Morning Forecasts

The forecaster will provide (by no later than 0800hrs) an early morning summary forecast.

The morning summary forecast will be text only and provide a general synopsis for the 24 hr period from 0800hrs on the day of issue until 0800hrs the following day.



## 2-5 Day Text Forecasts

The 2-5 day forecast will be received by the bureau service no later than 1300hrs on any given day.

The 2–5 day forecast will be text only and provide a general synopsis for the period. The synopsis will provide an indication of trends in addition to daily predictions of minimum/maximum air and road surface temperatures, anticipated road hazards and confidence levels.

## 24 hour Text Forecasts

The 24 hr forecast will be received by the bureau service no later than 13:00hrs on any given day.

The 24 hr text forecast will provide a general synopsis of the weather conditions

for the immediate 24 hr period and will also include the following: -

- Minimum surface and minimum air temperatures
- Likely road hazards
- Time below zero degrees
- Precipitation type and quantity (c/w timings)
- Detailed snow forecasts
- Confidence levels
- Wind speed/direction and gale warnings

## Site Specific Forecasts

The site specific forecasts will be received by the bureau service no later than 13:00hrs on any given day. Site specific forecasts will be issued for Bogside, Kelty, Corston and Guardbridge i.e. the forecast outstations. The site specific forecasts provide a detailed site forecast illustrating predicted road surface temperature and condition, air temperature and dew point. The site specific forecasts are presented in a graphical form and are contrasted with actual temperatures for each designated site.

## Forecast Updates

Evening forecast updates will be issued on all nights where the road surface temperature is forecast to be at or below three degrees celsius. The updated forecasts will be received by the bureau service no later than 20:00hrs on any given day and, upon receipt, be made available for view.

In addition to the above a revised forecast graph will be issued if, at any time, the forecast road surface temperature deviates from the actual by more than 2 degrees for a period of more than one hour. Under such circumstances the revised forecast graph will be issued within a period of one further hour and, upon receipt by the bureau service will be made available for viewing.

Similarly, if the zero crossing time is likely to be out by more than two hours a revised forecast graph will be issued.

An updated forecast will also be issued where the type, timing and duration or intensity of precipitation is likely to change from that identified in the current text forecast. Where a forecast has been updated (with the exception of the 2000hrs update) the Duty Forecaster will telephone the appropriate Fife Council Officer to advise of the change to the original forecast.

All forecast updates will be received via the Vaisala bureau system and thereafter be available to view.

### Telephone Consultancy

The Forecaster will provide a telephone consultancy whereby the duty forecaster will be available 24 hrs a day (for the duration of the winter season) for unlimited consultation on weather conditions and the details of forecasts.

## 16. PUBLICITY / COMMUNICATIONS

It is very important that the general public is aware of and understands the Council's commitment to delivering a comprehensive service plan. Winter Services activities are therefore publicised through a variety of media from the fifiedirect website to, in the event of severe weather, local and national broadcast media.

### Social Media

Fife also recognises that social media will reach a different market than our Contact Centre or website. Any closures, updates or high priority news stories will be uploaded on to the [fifiedirect.org.uk](http://fifiedirect.org.uk) website and will be automatically streamed straight on to our Facebook site ([www.facebook.com/fifecouncil](http://www.facebook.com/fifecouncil)) and Twitter feed ([www.twitter](http://www.twitter)).

[com/fifecouncil](http://www.fifecouncil.com/fifecouncil)). A small team of Council officers will then monitor responses and provide answers to questions.

### Winter Response at Local Level

Fife realises that the provision of more localised information is valuable to the public. In addition to the Fife wide and 3 Area based messages the council has developed 'Information Packs' based on the 23 council Wards. These packs will be available on the fifiedirect website and will detail snow clearing priorities in each ward.

### INTERNET: fifiedirect web site



### Winter Services Actions - Planned and Wrap Up Reports

The prime means by which Winter Service action will be communicated is via the Transportation and Environmental Services Winter Services Planned (i.e. proposed action) and Wrap Up (i.e. actual action) reports.

Each day the Winter Manager determines the proposed action for the upcoming 24 hr period. Once the proposed action is determined the Winter Manager will post the planned report (i.e. the proposed action plus an expected road condition report) to the fifiedirect website. fifiedirect will then auto-broadcast the relevant details, via email, to all relevant third parties.

Each morning Action Taken reports are produced for the previous 24 hours and circulated to all relevant parties including all Elected Members.

### Severe Weather – Reporting Road Closures

The objective of reporting is to have current and accurate information available to the travelling public at prime times e.g. when members of the public are planning journeys to and from work or school.



Subsequently any weather related incident that results in a road closure must be reported at the earliest opportunity. All reporting should be done via fifedirect which, via an automated process, will make closure information available through a variety of media vehicles including: -



Local and national radio stations



Intranet (FISH)



Internet (fifedirect – Winter Centre)



DigiTV (Fife Council TV - digital television service - available to anyone with digital services from SKY or Virgin Media)



Twitter and Facebook

Given the requirement for information to be available at prime times the **Nightshift Officer** will ensure that road closures are posted on Fife Direct by **0730hrs**.

## RADIO: AA Roadwatch

Information will also be disseminated, via the Planned Report, to local and national radio stations and motoring organisations (AA Roadwatch). This information is available for broadcast to the general public at the discretion of the recipient parties.

## School Closure Alerts

fifedirect offers a free closure alerts service to parents, pupils and other people affiliated to Fife's schools. The service provides alerts if a school has to be closed because of severe weather or any other unforeseen circumstances. The information is sent out to registered members of the public, wherever they are, whatever the time, by either text message or email.

## Press Releases

In the event of prolonged spells of snow and ice, information will be made available through press releases in local and national media.



## Fife Council Contact Centre 03451 550099

Further information on Winter Gritting & Snow-clearing issues can be obtained from Assets, Transportation and Environment contacts as detailed below:-

### Operational Service Delivery Issues:

#### North Fife Area

Contact 03451 555555 ext 859034

Cupar Combined Services Depot  
Cupar Trading Estate  
Cupar  
KY15 4SX

#### Sara Wilson,

Lead Professional Maintenance  
Operations

email: [sara.wilson@fife.gov.uk](mailto:sara.wilson@fife.gov.uk)

#### Mid Fife Area

Contact 03451 555555 ext 849165

Bankhead Central  
Bankhead Business Park  
Glenrothes  
KY7 6GH

#### Jim Coleman,

Lead Professional Maintenance  
Operations

email: [jim.coleman@fife.gov.uk](mailto:jim.coleman@fife.gov.uk)

#### South Fife Area

Contact 03451 555555 ext 899020

Milesmark Combined Services Depot  
Carnock Road  
Dunfermline  
KY12 GHX

#### Kane Smith

Lead Professional Maintenance  
Operations

email: [kane.smith@fife.gov.uk](mailto:kane.smith@fife.gov.uk)

### Operational Support Issues (Weather Forecasting Service, Fleet, Salt Purchase etc):

#### Ian Smart,

Service Manager Roads Operations

email: [ian.smart@fife.gov.uk](mailto:ian.smart@fife.gov.uk)

### Fife-Wide Service / Operational / Policy Issues:

#### Ken Gourlay

Head of Assets, Transportation  
and Environment

email: [ken.gourlay@fife.gov.uk](mailto:ken.gourlay@fife.gov.uk)

#### Derek Crowe

Senior Manager, Roads and  
Transportation Services

email: [derek.crowe@fife.gov.uk](mailto:derek.crowe@fife.gov.uk)

#### Bill Liddle

Service Manager Maintenance  
Operations

email: [bill.liddle@fife.gov.uk](mailto:bill.liddle@fife.gov.uk)

