

To: INFRASTRUCTURE, LAND AND ENVIRONMENT POLICY BOARD

On: 31 AUGUST 2022

Report by: DIRECTOR OF ENVIRONMENT & INFRASTRUCTURE

Heading: WINTER MAINTENANCE AND SEVERE WEATHER PLAN 2022 – 2027

1. Summary

- 1.1 This report details the Council's Winter Maintenance and Severe Weather Plan for 2022 2027 and reflect the preparations and operational arrangements for the 2022/23 winter period for ensuring Renfrewshire's road network, footpaths and schools are accessible during the winter, to support the economy and connecting people with jobs, learning and social needs.
- 1.2 The Winter Maintenance and Severe Weather Plan sets out the preventative and reactive activities that happen over the winter period. The Plan also details the Council's approach to incidents of excessive rainfall which can give rise to flooding events in Renfrewshire.
- 1.3 As part of the Plan, a review of the Council's Winter Maintenance Activities has been carried out, including the reciprocal arrangements that exist between Renfrewshire Council and our neighbouring authorities.
- 1.4 Recognising the potential impacts Covid-19 may continue to have on our workforce and the potential for impacts on our resilience, a mutual aid protocol has been agreed between the 9 Glasgow City Region authorities. The mutual aid arrangement recognises the importance of collaborative working and ensures that arrangements are in place for authorities to support each other during any periods whereby operational activities may be impacted.
- 1.5 The Plan has been developed taking into account the experience gained from the conditions of previous winters and recent developments in winter service best practice

to ensure coordination and consistency of the response provided by Environment & Infrastructure services.

1.6 Although a 5 year Plan, the Service will provide regular progress updates to the Policy Board through the Operational Performance reports and should there be any significant changes required to the Plan a revised version will be submitted to the Policy Board for approval.

2. Recommendations

2.1 It is recommended that the Infrastructure, Land and Environment Policy Board approves the Winter Maintenance and Severe Weather Plan 2022 – 2027, as set out at Appendix 1 to this report.

3. Background

- 3.1 Renfrewshire Council has a statutory obligation under section 34 of the Roads (Scotland) Act 1984 to take such steps as it considers reasonable to prevent snow and ice endangering the safe passage of pedestrians and vehicles over public roads. This applies to adopted carriageways, footways, footpaths and pedestrian precincts for which the Council is responsible. The official winter period is considered to be the beginning of October to the end of April.
- 3.2 The Winter Maintenance and Severe Weather Plan sets out the Council's duties and responsibilities with regards to our response to periods of adverse weather in Renfrewshire. The objective of the plan is to:
 - Allow the safe passage of vehicles and pedestrians,
 - Minimise delays caused by winter weather,
 - Ensure that all road operations are carried out safely, and
 - Ensure that appropriate proactive and reactive maintenance arrangements are in place to minimise disruption to our communities.
- 3.3 The plan is not exhaustive and does not cater for every unique set of weather conditions, however it provides a framework for operational responsibilities whilst still providing flexibility in the response to severe weather incidents.

Implications of the Report

- 1. **Financial** Met from within existing resources
- 2. **HR & Organisational Development** None
- 3. Community / Council Planning

Creating a sustainable Renfrewshire for all to enjoy – The Winter Maintenance Plan aims to ensure that pedestrians and motorists in Renfrewshire are protected during

periods of adverse weather minimising disruption and ensuring all road operations are carried out safely.

- 4. **Legal** None.
- 5. **Property/Assets** None
- 6. **Information Technology** None.
- 7. **Equality & Human Rights** The recommendations contained within this report have been assessed in relation to their impact on equalities and human rights. No negative impacts on equality groups or potential for infringement of individuals' human rights have been identified arising from the recommendations contained in the report. If required following implementation, the actual impact of the recommendations and the mitigating actions will be reviewed and monitored, and the results of the assessment will be published on the Council's website
- 8. **Health & Safety** None.
- 9. **Procurement** None.
- 10. Risk None.
- 11. **Privacy Impact** None.
- 12. **CoSLA Policy Position** none
- 13. Climate Risk none

List of Background Papers: None

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Renfrewshire Council Winter Maintenance and Severe Weather Plan

2022 - 2027



Contents

1.	Pol	licies	and	Respon	si	bi	lities
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- 2. Route Planning & Treatment
- 3. Weather Forecasting & Deployment
- 4. Organisational Response Arrangements
- 5. Communications
- 6. Flooding Incidents Response

Appendix 1 – Arrangements with adjacent Local Authorities

Appendix 2 – Grit Bin Policy and Arrangements



Policies and Responsibilities

1.1 Statutory Requirements

- Under Section 34 of the Roads (Scotland) Act 1984, the Council
 has a statutory obligation to take steps as it considers reasonable,
 to prevent snow and ice endangering the safe passage of
 pedestrians and vehicles over public roads.
- This applies to all adopted carriageways, footpaths, footways and pedestrian areas for which the Council is responsible for
- This Winter Maintenance and Severe Weather Plan is prepared in the context that not every carriageway and footway will be treated during every period of adverse weather, however a risk based approach is adopted which demonstrates that we are taking reasonable steps to keep the public safe during winter periods.
- The aims of the Winter Maintenance and Severe Weather Plan are to;
 - Ensure the necessary preparations and responses are deployed, and
 - Protect the public and minimise disruption to the road network.

1.2 Roles and Responsibilities

- The strategic responsibility for the effective delivery of the Winter Maintenance and Severe Weather Plan sits with the Head of Operations & Infrastructure.
- The operational preparations and implementation of the Plan are overseen by the management team within Infrastructure and Transportation.
- The operational responsibilities include;
 - Reviewing and implementing the Winter Maintenance and Severe Weather Plan,
 - Implementing reciprocal arrangements with neighbouring authorities,
 - Designating the priority routes for treatment during periods of adverse weather,
 - Ensuring that the Winter Maintenance Supervisors are supported with the correct resources to deliver the Winter Maintenance service effectively

Policies and Responsibilities Cont'd

1.3 Operational Responsibilities

- The Infrastructure and Transportation team are responsible for the delivery of the Winter Maintenance and Severe Weather Plan, the duties include but are not limited to:
 - Ensuring appropriate arrangements are in place for salt storage and delivery
 - Providing specialist vehicles and equipment throughout the winter period
 - Ensuring all salt spreading equipment is calibrated
 - Ensuring all operatives have received appropriate training in Winter Maintenance activities
 - Monitoring all aspects of the Winter Maintenance Service and maintaining management information on these activities
 - Maintaining comprehensive records of all activities undertaken
 - Assessing real time information to identify if appropriate further actions are required during gritting periods
 - Carrying out an annual review of the Winter Maintenance and Severe Weather Plan
 - Liaison with relevant stakeholders such as Transport Scotland, adjacent Local Authorities and Emergency Services
 - Publicising contact details to ensure appropriate resilience arrangements are in place
 - Arranging for weather forecasting and monitoring information to be available throughout the Winter period
 - Maintaining a list of suitable contractors with appropriate plant for snow clearing purposes and deploying these resources as necessary
 - Ensuring vehicles and plant are maintained effectively throughout the Winter period through liaison with our Transport Service
 - In the case of a severe weather event the service will make contact with
 - The Environment & Infrastructure Resilience Group
 - The Council's Civil Contingencies Service
 - The Communications Team, and
 - The relevant elected members for the area affected.

Policies and Responsibilities Cont'd

1.4 Decision Making

- The Winter period is classed as being from the beginning of October to the end of April.
- Operational decisions throughout this period will be taken by the designated Winter Controller and implemented by the designated Winter Supervisor.
- Should there be a need to amend instructions, the Winter Supervisor will liaise with the Winter Controller of the need to change at the earliest possible opportunity
- Day to day decisions will be made using forecasts from the weather provider and the road and weather data from monitoring stations to support decision making.
- On receipt of a weather forecast or update through the Winter period, the Winter Controller will reach a decision on action for the next 24hours.
- If treatment is planned a decision record will be produced which will include the required salt spread rate, including post salting and/or snow clearance.
- The decision will be distributed to those members of the Environment & Infrastructure Resilience Group.
- The Council will endeavour to ensure that salt is spread, as necessary, prior to the formation of ice or the setting of snow on the priority network.
- When the road surface temperature falls below 1°C with forecast of freezing conditions and ice forming, precautionary treating shall take place unless;
 - There is enough residual salt on the road to deal with the expected conditions, or
 - The weather forecast information indicates that the road surface temperature will rise before the roads could be salted or there will be no period of frost that could cause icing

1. Policies and Responsibilities Cont'd

1.4 Decision Making Cont'd

- Snow clearance operations will be carried out across the network as conditions require. The high ground areas of Renfrewshire are more prone to snowfall and at times may require more localised treatment.
- The majority of low level snow incidents are dealt with through the application of rock salt as per standard gritting instructions.
- Where a snowfall is predicted to exceed 100mm will be treated with repeated applications of rock salt. On occasions where snowfall is expected to exceed this for a period of time, the use of ploughs may be required.
- Care is taken when ploughing is deployed to ensure that junctions or side roads are not blocked as a result of this activity.



2. RoutePlanning andTreatment

2.1 Road Network

The Council keeps the road network operating through precautionary treatment by pre-salting roads to reduce the effect of frost and frozen conditions.

The road network is currently split into Primary and Secondary routes. Planned pre-gritting is only undertaken on the Primary network. The Secondary network may be treated after the Primary routes, where there is time and resources to cover them, and it is likely that freezing conditions will continue.





2.2 Treatment Priorities

- The routes for the priority road network have been devised to ensure efficient coverage of the road network within reasonable timescales.
- When forecast that road surface temperatures will fall below 1°C, roads will be treated at the discretion of the Winter Controller
- Precautionary treatment is the best method of dealing with both snow and ice. Salt spread rates are set to the appropriate width of the carriageway, which may be both lanes of a single carriageway or both lanes of one side of a dual carriageway. Vehicles will generally travel in the left hand lane and the spreading pattern will be set to cover both lanes unless multiple passes are required.
- Sustained low temperatures occur only rarely, however, when this occurs account is taken of the need to increase the rate of spread of salt. Below -9°C the action of salt is largely ineffective.



2.3 Carriageway Priorities

- The road network has been assessed in terms of priority for treatment in periods of adverse weather.
- The prioritisation of the road network in Renfrewshire has resulted in the development of three different route types for treatment during adverse weather.
- The three route types are:
 - Primary Routes these routes include the strategic road network in Renfrewshire and include main distributor roads and access routes to hospitals, schools and emergency services locations. There are 7 primary routes which cover 54% of Renfrewshire's road network.
 - Secondary Routes Treatment of secondary routes will only take place during periods of exceptionally poor weather or prolonged periods of freezing. The secondary routes include local distributor roads serving industrial estates and isolated communities of local access roads within communities. There are 7 secondary routes.
 - High Ground Routes On occasions there may be borderline conditions which require an "on the ground" assessment of conditions. In these instances our two high ground patrol routes will be deployed so that the live information can be relayed to the Winter Supervisor. The high ground routes are part of the primary network but are identified as the areas most at risk from periods of severe snowfall

The Council has published our gritting routes at: Winter gritting - Renfrewshire Website



2.4 Footway Priorities

- The priority footpath network has been identified as;
 - Paisley, Johnstone and Renfrew town centre pedestrian areas,
 - · Routes serving the hospital and health centres,
 - · Access to schools and community centres, and
 - Other high pedestrian usage areas such as sports centres
- The gritting of footways is not done on the same basis as the priority carriageways. The treatment of the carriageways is the number one priority and all other activities flow after that.
- The treatment of footways will generally only be considered after freezing conditions for several days without thaw, however should there be a significant snow event forecast then precautionary treatment of footways may be carried out in advance.
- During any snow event focus will solely be on the treatment of the priority networks, complaints in relation to local or residential areas will only be considered once the priority road network has been attended to.

2.5 Schools Gritting

- Facilities Management staff at the school will clear snow and grit from the entrance door of the school to the gate at the entrance to the school grounds.
- During snow or prolonged ice events 100m of footpath either side of the main entrance gate will be treated. Walking routes to school are not gritted.
- In periods of severe prolonged weather it will not be possible to keep all entrance paths into schools clear.

2.6 Snow Clearance

- Whilst snow is lying, only the designated priority routes will be ploughed and treated in order to effectively manage the road network in Renfrewshire.
- Once the snowfall has stopped but is still lying the priority routes will continue to be ploughed and treated and as resources become available the secondary routes will be treated.
- Only once the primary and secondary routes have been treated effectively will resources be directed to treat the remaining road network.

2.7 Route and Response Times

- From October to April the Roads Service operates a 24hr service with a dedicated night shift ensuring a quick response to any weather incidents.
- The treatment of the priority routes will commence prior to the onset of the forecast ice, hoar frost or snow where possible.
- The primary routes are designed to be completed within 3 hours of the treatment being instructed.

2.8 Grit Bins

- There are over 540 grit bins sited locally throughout Renfrewshire for Communities and members of the public to access, the location of all grit bins is available on the Council website.
- The criteria for assessment of a grit bin is attached as Appendix B to this document.
- The grit bins are stocked before the winter season commences and restocking requests should be made to the Council's Customer Contact Centre on 0300 300 300.
- In addition to the 540 grit bins, there are 20 larger community grit bins located throughout Renfrewshire. During periods of severe weather these bins will be prioritised for restocking.
- Maintaining stock in grit bins is a labour intensive manual process and is dependant on available resources. In prolonged periods of adverse weather we may not be able to carry out restocking as our resources will be directed towards treating the priority road network.

3. Weather Forecasting & Deployment

3.1 Forecasting

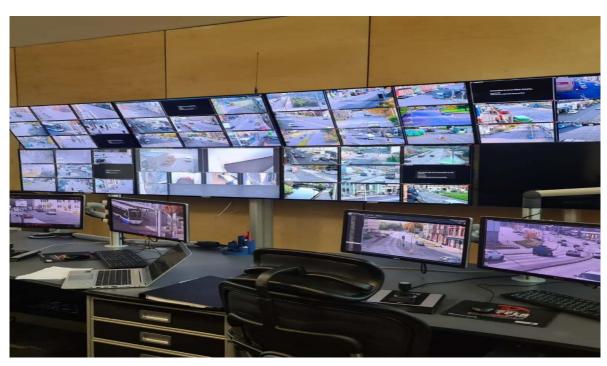
- To provide a reliable and robust winter service, the Council have a number of forecasting tools at our disposal to plan the best treatment regime throughout the winter period. These include;
 - Weather forecasting both short and medium term,
 - Road and weather monitoring data, and
 - Actual conditions of the network.
- The Council is a member of the West of Scotland Local Authority partnership that receives detailed weather for each day for the period 1st October to 15th May each year.
- All road weather forecasts are provided via an online weather management system.
- Contact is made directly with the Winter Controller out of hours to ensure all decisions are based on the most up to date information.



3. Weather Forecasting and Deployment Cont'd

3.2 Weather Stations

- There are 4 local weather monitoring stations, which are also used to provide supporting information for decision making, these are located at;
 - A737 at Howwood,
 - B786 Stepends Road,
 - B775 Gleniffer Road, and
 - East Fulwood at Georgetown Road.
- A range of supporting data is provided through the weather stations which is available for the Winter Controllers to review and assess, including;
 - Road Surface temperature,
 - Air temperature,
 - The dew point, which indicates moisture on the road,
 - Precipitation levels and timings,
 - Surface information, including level of salt on the road, and
 - Wind speed and humidity.



3. Weather Forecasting and Deployment Cont'd

3.4 Information Sharing and Decision Making

- Weather reports are provided 3 times a day during the winter period, 5am, 11am and 5pm by the DTN group, the Councils forecasting provider.
- The weather reports provide an accurate picture of conditions over the next 36hr period and provides the confidence levels in the predictions of a range of hazards including ice, snow, strong winds and rain.
- The Winter Controller will relay this message and the relevant actions to take to the Winter Supervisor and those officers who are on the Environment and Infrastructure Resilience Group. The information will be shared at 7am, 12pm and 7pm each day.
- All actions taken by the Controller and Supervisor are logged for peer review to aid continual learning.
- The group coordinator will also decide if the weather prediction is sufficiently severe that it should be shared wider with relevant stakeholders.
- During periods of more adverse weather more regular updates will be provided to the Resilience Group and thereafter shared more widely within the Council and with relevant partners.
- Should the predicted conditions vary significantly the DTN group will contact the Winter Controller immediately to allow them to take corrective action if need be.
- The DTN group provide a 24 hour 365 day a year response service to the Council should any clarification around weather forecasting be required.

4. Organisational Response Arrangements

4.1 Organisational Responsibilities

- The strategic responsibility for the effective delivery of the Winter Maintenance and Severe Weather Plan sits with the Head of Operations & Infrastructure.
- The operational preparations and implementation of the Plan are overseen by the management team within Infrastructure and Transportation.

4.2 Winter Controller

- From October to May there is a Winter Controller on a standby rota each week and available 24/7.
- The Winter Controller is responsible for assessing the weather conditions and taking decisions on any required action to mitigate adverse weather.

4.3 Winter Supervisor

- There is a Winter Supervisor on call each week from October to May, mirroring the shift of the Winter Controller.
- The Winter Supervisor is responsible for organising and overseeing the instructions relayed to them by the Winter Controller.
- The role of the Winter Supervisor is to utilise and manage all resources under their control, including plant, labour and materials to effectively treat the road network.
- It is the responsibility of the Winter Supervisor to ensure all records are maintained during and immediately after each gritting shift.



4. Organisational Response Arrangements Cont'd

4.4 Winter Maintenance Operatives

- During the period September to April, the Council has a permanent nightshift in place to respond to adverse weather incidents.
- The primary role of the nightshift is to act on gritting instructions from the Winter Controller or Supervisor.
- The operatives are responsible for ensuring gritting activities are carried out in a safe and efficient manner.
- All personnel involved will be familiar with the gritting routes, equipment and transport to carry out their duties.
- Working procedures and training is refreshed on an annual basis to ensure all personnel are able to carry out the role safely.
- When the nightshift is not gritting, they will be responsible for the delivery of other frontline duties such as streetsweeping, gulley cleaning and road repairs in suitable locations.
- During the Winter period and especially in severe weather conditions the resources available will be supported by additional resources from other Service areas and/or the use of private contractors.

4.5 Training

- Annual refresher training is carried out by DTN for all our Winter Controllers and Winter Supervisors and over the last number of years we have brought in employees to shadow these roles to build capacity in the service.
- Prior to the gritting season a "dry run" of the routes and machinery is carried out to identify any issues prior to any periods of Winter weather.

4. Organisational Response Arrangements Cont'd

4.7 Plant, Vehicles & Equipment

4.7.1 Gritting Fleet

- The Council has a fleet which consists of dedicated gritting vehicles deployed between October and April and supplements this with a number of vehicles which can be quickly converted to gritters as required.
- In addition to the gritting vehicles there are also a number of tractors and smaller vehicles which can be fitted with mounted gritters and ploughs to increase resilience during severe weather.
- All of the gritting operations are delivered from our Underwood Road Depot and supported by dedicated provision from our garage over the winter period to minimise down time of the fleet during Winter.
- All gritting vehicles are calibrated prior to the start of the Winter period and are recalibrated during the Winter to ensure salt spreading operations are effective.
- Our StreetScene colleagues use additional plant which can be fitted with gritting units in order to efficiently treat footways

4.7.2 Salt

- The Council uses rock salt for its gritting operations and stores approximately 4,000 tonnes of salt at Underwood Road for the start of the Winter season.
- Arrangements are in place with suppliers to ensure deliveries continue through the Winter period should the need arise.
- On an average Winter the Council will use approximately 6,500 tonnes of salt on the road and footway network.



5. Communications

5.1 Communication Arrangements

- The Winter Controller and Winter Supervisor are contactable on 24hrs a day 7 days a week during the Winter period.. The Winter Controller copies the Environment & Infrastructure Resilience Group into every gritting action taken during the Winter period.
- Should there be significantly severe weather circumstances the Resilience Group coordinator will notify the Council's Corporate Communications Team to assess whether wider communications are required.
- During these periods of significant adverse weather more regular updates will be communicated with the wider Council and stakeholders.
- Should there be a Red weather incident or a period of weather be severe enough the Council's Civil Contingencies Service will assist with the wider Council response to a particular incident or prolonged period of severe adverse weather.
- In the case of a Red weather alert, the relevant Senior Officers will decide whether it is necessary to set up the Councils Incident Management Team.
- The Council maintains an Emergency Contacts directory which the Civil Contingencies Team update on a regular basis. The directory has the relevant contact details of key officers within the Council who could assist in dealing with a Council wide response.

5.2 Operational Action Logs

- The Winter Controller and Winter Supervisor will ensure the following records are retained:
 - Weather report action,
 - Daily gritting logs,
 - Weight tickets from each gritting vehicle, and
 - A record of any actions taken over and above the identified actions from the weather report.

5.3 Public Communications

- The Council's website has a dedicated Winter Service section on the website that provides relevant information to the public including the detail of our gritting routes, location of our grit bins and the gritting tracker to give real time information on gritter locations.
- During particularly prolonged periods of snow and ice or adverse weather, information will be made available to the public across our communities using all appropriate communications channels.

6. Flooding Incidents Response

6.1 Flooding Incidents

- As a result of climate change, both the chance and consequence of flooding are increasing. As sea levels rise there will be more frequent and higher storm surges, increased winter rainfall and more intense summer rainfalls are predicted, adding to the existing risk.
- Renfrewshire has experienced major flooding events throughout the years and more recently in 2021. In Renfrewshire flood events are typically caused by:
 - Intense rainfall events,
 - Water courses exceeding peak flow capacities,
 - Surface water run off from developed areas,
 - Lack of capacity in the sewerage system, and
 - Tidal influence of the Clyde.
- The aim of this Plan is to ensure an informed and co-ordinated response to a flooding incident, focussing on the welfare of those effected, mitigation of property and environmental damage.

6.2 Statutory Responsibilities

- Under Section 18 and 59 of the Flood Risk Management (Scotland)
 Act 2009 the Council has a duty to assess bodies of water for the
 purpose of ascertaining whether any such body gives rise to a risk
 of flooding, and to carry out a schedule of clearance and repair
 works to substantially reduce any such risk.
- Local authorities have a duty under the Roads (Scotland) Act 1984 to maintain road drainage systems and to clear roads of flooding.
- The Code of Practice for Well Maintained Highways recommends that local authorities should ensure drainage assets are maintained in good working order to reduce the threat and scale of flooding.

6.3 Roles and Responsibilities

- The Council has the overall responsibility to provide an effective Flood Management Service in accordance with its duties. The responsibility for the efficient and effective delivery of Operational flood management sits within Environment & Infrastructure. The more strategic areas of Flooding such as Development Management and Flood Risk Planning sits within the Chief Executives Service.
- The Road Operations Team in conjunction with our Roads Inspectors play a key role in any emergency response to any flooding alert in terms of preparing, responding, and recovering from a flooding incident.
- The Council uses a variety of measures to ensure it fulfils its statutory duties in relation to flood management. These include:
 - Cyclical inspection, cleaning and maintenance of our 30,000 road gullies,
 - Regular cleaning of grids at watercourses,
 - Installation and maintenance of flood prevention schemes, and
 - Capital drainage improvements.

6.4 Flooding Incidents

 The Scottish Environment Protection Agency issue two types of notification of flooding in advance of an event happening. The first is a Flood Alert, this will highlight there is a chance of flooding occurring in a larger geographical area, such as a local authority area. The other notification is a Flood Warning and this is an indication of an imminent risk to flooding in more specific locations.

- Key officers in Environment & Infrastructure are on the SEPA contact list for when flood alerts are issued. The flood alert provides a reasonably accurate prediction of timing and severity of the adverse weather expected.
- When an alert is issued that indicates there will be a severe rainfall event, officers from Environment & Infrastructure will immediately instruct the following actions to take place prior to the event occurring:
 - The flood prevention schemes and pumping stations will be inspected,
 - The priority watercourse grids will be cleaned,
 - The priority gulley locations where known flooding has previously occurred will be cleaned,
 - Communications will be issued to Elected Members and the public, and
 - River levels monitored where appropriate
- There will be occasions where excessive rainfall events overwhelm the surface water drainage system and no amount of clean gullies would help in these instances. Regular liaison meetings take place with Scottish Water to inform future plans for upgrades to the combined sewer system to minimise the impact of such events.
- If a flooding incident occurs out of hours the Roads Stand By Supervisor will be responsible for co-ordinating resources.
 Resources will initially be directed to priority 1 locations. These are locations which historically causes flooding and where there is a risk of road closures and damage to properties.
- In recent years excessive rainfall events have been occurring on a more localised basis and as such the response to incidents has to be flexible to allow resources to be deployed where the need is required.
- The operational protocols will continue to be reviewed and amended as required to respond to the changing environment we continue to operate in.

6.5 Flood Prevention Schemes and Pumping Stations

Renfrew Flood Prevention Scheme

 A dedicated protocol has been developed which includes responsibilities from a number of service areas. Should there be a tidal warning issued from SEPA for Renfrew, this operational protocol is activated.

Moredun Flood Prevention Scheme

 A visual check of the grids and the perimeter fencing is carried out weekly. In addition to the visual checks, a reservoir engineer inspects this site annually. They also advise on embankment safety issues.

Pumping Stations

- There are five pumping stations located at the following locations:
 - Collier Street, Johnstone
 - Rankine Street, Johnstone
 - Linwood Toll, Paisley
 - Howie Street, Paisley
 - Fingal Road, Renfrew
- These routinely maintained by a specialised contractor and they issue reports on the maintenance to the Council. The contractor also provides a dedicated emergency out of hours service to respond to any issues associated with the pumping stations.

6.6 Role of other agencies

- Whilst local authorities have responsibilities in relation to flooding, other agencies also have responsibilities for flooding issues.
- The division of responsibilities for flood prevention and watercourse maintenance, piped water systems, flood warning and flood emergency response requires co-operation between the respective agencies involved, principally the local authority, SEPA, Scottish Water and the emergency services, in order to secure appropriate action during emergency flood events.
- It is recognised that the responsibility for the protection of property lies with the property owner, there are a number of useful advice sources to utilise to protect properties from flooding.
- Floodline Scotland www.floodlinescotland.org.uk
 - Floodline is a free advance warning service for the public and is operated by the Scottish Environment Protection Agency. Anyone can access SEPA's live flooding information <u>online</u>, but by registering a contact number with Floodline, you will get notified when flooding is likely in your area.
- Scottish Flood Forum www.scottishfloodforum.org
 - The Scottish Flood forum aim to reduce the impact of flooding on individuals and communities, through providing immediate support and by establishing a <u>network of community resilience</u> groups in flood risk areas to equip communities to cope with the impacts and threat of flooding.
 - The forum provide advice and information to individuals to help protect their home from flooding or, if the worst has happened, to recover from flooding.

Appendix A – Arrangements with Adjacent Local Authorities and Others

1. Arrangements with Adjacent Local Authorities

At Boundary with Glasgow City Council, Renfrewshire Council treats:

- Hurlet Rd (A726) from the boundary to Glasgow Rd (Hurlet Junction),
- Paisley Road West (A761) from the boundary to Glasgow Road,
- Hillington Road (A736) at Queen Elizabeth Roundabout,
- Penilee Road at the junction of Corse Road, and
- Glasgow Road (A8) and Kingsinch Road at Hillington Rd / Govan Rd Roundabout.

At Boundary with East Renfrewshire Council, Renfrewshire Council treats:

- Gleniffer Rd to Caplaw Rd (joint responsibility),
- Caplaw Rd from Seargentlaw Rd to Gleniffer Rd (joint responsibility),
- Grahamston Rd to Barrhead Rd, Paisley, and
- Caplethill Rd to Grahamston Road, Barrhead (Cross Stobs); Roebank Rd (B776) to Hall of Caldwell (B775).

At Boundary with North Ayrshire Council, Renfrewshire Council treats:

• Kilbirnie Rd (A760) to Kerse Rd.

At Boundary with Inverclyde Council, Renfrewshire Council treats:

- Kilmacolm Rd (A761) to Craigends Road and Stepends Road (B786) to Torr Rd, and
- Inverclyde Council treats: Old Greenock Rd, Finlaystone Rd to the Burnside Smithy.

2. Arrangements with Others

- During periods of adverse weather the Council implements arrangements it has with local farmers for the clearance and treatment of the rural road network.
- The contact details for each of the farmers is updated on an annual basis prior to the commencement of the Winter period.



Appendix B – Grit Bin Locations and assessment criteria

1. Grit Bin Locations

- Renfrewshire Council provides grit bins for residents and communities to assist themselves and their communities.
- There are 540 grit bins located throughout Renfrewshire. These can be located through the attached link: http://www.renfrewshire.gov.uk/article/2236/priority-roads-for-grtting
- In addition to the standard 540 grit bins a number of larger Community Grit Bins are located across Renfrewshire at central locations for the community to access and help them to self-serve during periods of adverse weather. These locations are detailed in the table below:

Bishopton	Community Centre Car Park.
Bridge of Weir	Livery Walk Car Park
Brookfield	Albert Drive
Crosslee	Car park at Crosslee shops.
Elderslie	Car Park at Village Hall
Erskine	Household Waste Recycling Centre, Barrhill Road, Erskine
	2. Car Park to the rear of the Library.
Houston	Carrick Centre Car Park
Howwood	Village Hall Car Park
Inchinnan	Playing Fields Car Park opposite the Primary School
Johnstone	Household Waste Recycling Centre, Miller Street, Johnstone
	2. Car Park of Floor Street Industrial Estate
Kilbarchan	Adjacent to clock tower at Steeple Hall on Steeple Street
Langbank	Footpath adjacent to tennis courts
Linwood	Household Waste Recycling Centre, Middleton Road, Linwood.
Lochwinnoch	McKillop Centre Car Park
Paisley	1. Household Waste Recycling Centre, Underwood Road, Paisley
	2. Glenburn Community Centre Car Park
Renfrew	Household Waste Recycling Centre, Haining Road, Renfrew
	Car Park of Kirklandneuk Community Centre

Appendix B – Grit Bin Locations and assessment criteria

2. Grit Bin Assessment

- Requests for new grit bins will be received through the Customer Service Centre and will be assessed against the criteria outlined below.
- All current grit bins are being retrospectively assessed against this
 criteria to identify locations where grit bins have been provided where
 not required or any areas where there is an over provision.

Description of	Steep
gradients	Moderate
	Slight / level
Description of bends	Sharp / many
	Moderate / few
	Slight / straight
Traffic type	Domestic / housing estate
	Industrial
	Rural
Traffic flow	Heavy
	Light
Pedestrian activity	Elderly / less mobile
	Heavy (town / large village)
	Light (small village)
On a treated route	Yes – Primary
	Yes – Secondary
	No
Salt bin nearby	Yes
	No
Proximity of health	Near / distant
centre/surgery	
Other important local	Near
services – pharmacy,	Distant
schools, community	
centre, shops etc Bus route	Untreated
Dus route	
Aggident history	Treated Yes
Accident history	
	No