North Tyneside Council

Environment and Leisure

WINTER MAINTENANCE POLICY

Last Amendment October 2013

WINTER MAINTENANCE OPERATIONS

1.0 INTRODUCTION

1.1 The Highways Act 1980 imposes a duty on the Highway Authority to take reasonable steps to remove accumulations of snow or ice from the highway.

Winter Maintenance is important in terms of both the economy and road safety - it is carried out to ensure the safe movement of all highway users including buses, cars, cyclists, motorcyclists and pedestrians. It is economically significant because of the delays that bad weather can cause.

2.0 POLICY

2.1 To comply with the requirements of the Act North Tyneside Council has designated some 240 miles of highway to receive priority treatment under the Winter Maintenance Scheme and has set a performance target of a two hour response / treatment time for all such designated roads.

3.0 RESPONSIBILITIES

3.1 Environment and Leisure on behalf of the Highways Maintenance Section will carry out Winter Maintenance operations in North Tyneside, which is the Highway Authority.

3.2 The Service responsibilities are defined below:-

- Winter Service Plan.
- Designating roads for priority treatment.
- Setting Standards, e.g. response time.
- Supply of transport and plant.
- Supply of materials - salt.
- Supply of equipment - salt / grit bins.
- Liaison with outside agencies - MeteoGroup and Police.
- Staff / staffing levels.
- Day to day operations.

4.0 OPERATIONS

4.1 The winter maintenance operation in North Tyneside falls into two categories: -

4.1.1 Precautionary measures

4.1.2 Remedial measures

Precautionary measures consist of: -

4.1.1.1 24 hour standby - One duty supervisor and two drivers will be on call for 24 hours / day to deal with any weather emergency, provide spot treatments to any isolated occurrences and to facilitate the prompt call out of any personnel when required.

4.1.1.2 Preventative treatment - either “pre salting” of prescribed routes following the receipt of a weather forecast and before the arrival of ice and snow, normally carried out early evening between 6.00p.m. and 10.00p.m, or an “Early Morning Salt” (E.M.S) an early morning “just in case” standby shift again following the receipt of a weather forecast and which can attend to any deterioration in road conditions which may occur during the early morning hours (normally commences at 04.00a.m).

4.1.1.3 A combination of 4.1.1.1 and 4.1.1.2 depending on the type of forecast and road conditions, e.g. early morning ground frost followed by a rise in Road Surface Temperatures (R.S.T.`s) with accompanying rain and followed later by clear skies and a drop in R.S.T.`s to zero degrees Celsius.

4.1.2 Remedial measures will be taken following the formation of ice, frost or accumulations of snow. They normally consist of spreading salt and if necessary carrying out ploughing operations and in extreme conditions employing hired plant and vehicles to physically remove snow accumulations from the highway.

5.0 ROUTE SELECTION

5.1 The selection criteria for priority routes will be all dual carriageways together with main bus routes. Designated highway will be revised at the start of the winter season every year. This will ensure any new or revised bus routes are included in our operations.

Designated highways will be available for all members of the public to access via the Council's web site.

5.2 Secondary routes will include minor roads with a steep gradient and areas around Aged Persons Homes and Shopping Centres.

5.3 In occurrences of heavy snowfall where the entire workforce are unable to carry out normal duties i.e., grounds maintenance, street cleansing and highways maintenance, secondary routes will be prioritised following the hierarchy.

1. Town Centres/ shopping areas
2. Underpasses and footbridges
3. Steep inclines
4. Older peoples sheltered accommodation
5. Known hazards
6. Access and egress to school sites*

* The priority given to clearance of snow from schools may be re-prioritised higher if by clearing the snow the snow the school can remain (or be) open(ed).

5.4 Assistance will be offered to business premises at a charge when resources allow. This will enable businesses to continue trading and retain normality within the business community.

6.0 PERSONNEL

6.1 Personnel employed on winter maintenance operations will be drawn from appropriate areas of the existing North Tyneside workforce. The Street Environment Service will manage the day-to-day standby supervision and decision-making duties.

6.2 Six duty officers / decision making personnel will all be trained in winter maintenance operations prior to their involvement in delivering the service.

6.3 Thirty two H.G.V. drivers, will be trained to operate gritters prior to their involvement in delivering the service.

6.4 All supervisors and drivers will operate a rota basis for pre salts, E.M.S. and any emergency call outs.

6.5 A fixed rota will operate on a weekly basis for the 24-hour standby.

7.0 PLANT, EQUIPMENT AND MATERIALS

7.1 All gritters used by North Tyneside will conform to BS 1622, 1989 and will be speed regulated. This will enable a variable rate of spread over variable spread patterns

7.2 Plant for winter maintenance operations will consist of Tractor Mounted Loading Shovels and purpose salt spreading vehicles (Gritters).

7.3 The Fleet Management Section operates an emergency call out and repair service under the terms of the Vehicle Maintenance and Repair Contract.

7.4 All gritters will be equipped with a snowplough attachment.

7.5 For manual snow clearance specific snow removal equipment and accessories will be used by Council staff during their normal work, i.e. snow scoop, snow shovel etc.

7.6 Salt / Grit Bins will be provided at locations of high risk to assist Environmental Services staff, for example;

- High footfall, (Town Centres and shopping locations)
- Steep inclines (hills, subways etc)
- Older peoples accommodation
- Known hazards (historical data)

These bins serve two purposes: -

7.6.2 To assist local Council staff to provide local treatment to snow / ice.

7.6.3 For use of the general public to treat steps, inclines, junctions of side streets / main roads, etc.

7.7 Grit bins will be yellow and be of a consistent style.

7.8 The locations of all grit bins will be available on the Council's website.

7.9 The material used for gritting purposes in all winter emergency operations will be Rock Salt, conforming to BS 3247: 1984. It will be purchased every year through the North East Purchasing Organisation (N.E.P.O.) who arranges an annual tender.

Use of the salt during each operation will be recorded and collated at Head Office. This will afford an effective control and provide the basis for stock replenishment if necessary.

8.0 WEATHER FORECASTS, COMMUNICATIONS AND DECISION MAKING

8.1 Weather Forecasting

8.1.1 The MeteoGroup `Open Road Service` which operates from their London office will be utilised throughout the winter season from October until April.

8.1.2 The forecast information that informs activity will be;

By 06:00 hours daily;
Morning Summary for Tyne and Wear Valid from noon on the morning to 07.00 the next day
By 10:00 hours daily:
2 to 5 Day Forecast for Tyne and Wear
By 13:00 hours daily;
24 hour text forecast for the period 1200 'today' to 1200 'tomorrow'
Ice prediction graphs for other Tyne & Wear sites, and A1058 (Coast road).
Amplifying text comment will accompany the graphs when appropriate.
This service includes:
All amendments carried out according to agreed specification.
Met Office On-Call telephone consultancy service available 24 hours a day throughout the season.
Seasonal Open Road Performance Statistics.

8.1.3 The 2 to 5 day rolling forecast is a prediction of expected weather patterns and is extremely useful during the main winter period.

8.1.4 The service incorporates a constant update and advisory facility that will be used when the weather proves unpredictable.

8.2 Communications

8.2.1 Weather Forecasts will be collected via Vaisala Limited via the internet. An ice prediction station is located at A1058 and will provide road surface temperatures from a road sensor. This information will be used in conjunction with a thermal map to estimate the road surface temperature of other roads within the North Tyneside area. Information on wind speed and direction, humidity and air temperature will be accessed using this system. Information from other Local Authorities ice prediction stations located at various sites within the Tyne and Wear Region will also be taken into consideration. All this information in addition to the weather forecasts will be used in the decision making process.

8.2.2 A copy of the Duty Officers decision will be emailed to the regional bus operators and updated on MeteoGroup Road Cast website.

8.2.3 This will enable both the bus operators and the MeteoGroup to be aware of operations in North Tyneside, which can result in valuable savings in both time and effort from their respective duty officers. This will also reduces the risk of Council Staff and members of their families being unnecessarily disturbed during night operations.

8.2.4 The Council Duty Officer will be supplied with a mobile telephone, which ensures that officers of the Council and other informed agencies, e.g. Police and MeteoGroup, can contact the Duty Officer 24 hours per day. Outside of normal working hours the Duty Officer will access the Vaisala website, to keep in touch with any amendments to weather forecasts or readings from the ice prediction station.

8.2.5 Mobile radios will be fitted to the gritting vehicles to ensure contact between Depot based staff (duty officer, supervisors) and Gritter drivers during operations.

8.2.6 A list of contact names and telephone numbers for use during winter maintenance operations will be provided to MeteoGroup.

8.2.7 During extreme emergencies, the duty officer will contact the local media radio stations inform them of the action being taken.

8.3 Decision Making

8.3.1 Accumulations of snow or the presence of hoarfrost or ice will result in the appropriate treatment of the condition. However, salt will be spread before ice forms or snow settles on the road whenever possible.

8.3.2 A decision to take precautionary measures “pre salt” will involve consideration of many factors such as; the weather forecast, the expected R.S.T.`s, the road condition (wet, damp, dry), the presence of residual salt from a previous treatment, local knowledge of danger spots and weather trends.

8.3.3 Some examples of forecasts and the actions which they may generate are given below: -

8.3.3.1 Dry roads with no wet patches with R.S.T.`s below zero degrees Celsius or just above may mean that no action is required.

8.3.3.2 Wet roads with R.S.T.`s at below zero may dictate that precautionary treatment will be required - a “pre salt” (6:00p.m.)

8.3.3.3 Wet or damp roads with more rain expected and R.S.T.`s at or below zero degrees Celsius may result in pre salting being delayed until after the rain has fallen (5:00a.m.).

8.3.3.4 Hoar frost and / or fog combined with R.S.T.`s below zero degrees Celsius or just above will usually require treatment.

8.3.3.5 Combinations of rain and sub zero temperatures will usually mean both precautionary salting early evening and early morning. Likewise wet roads, wet patches may mean precautionary treatment either early evening or early morning.

8.3.3.6 Marginal forecasts with a degree of uncertainty will usually result in an early morning standby shift, which enables an immediate response depending on developments.

8.3.3.7 A prediction of snow and / or sleet may involve the arranging of standby shifts with or without precautionary treatment. Risks cannot be taken where moderate accumulations are forecasted as clearing snow without a “headstart”, which precautionary treatment gives, is extremely difficult.

8.3.4 Recommended rates of spread to be applied during treatments are given below: -

Pre salting	15 g/sq. m
Pre salting prior to snow fall	20 g - 40 g/sq. m
Snow already on road	up to 40 g/sq. m
Snow already on road to a depth	
In excess of 30 mm	40g/sq m and ploughing

9.0 CIRCULATION LIST

9.1 Head of Environmental Services

9.2 Senior Manager – Street Environment

9.3 Strategic Director for Community Services

9.4 Area Officers (4)

9.5 Service Manager - Highways

9.6 Communications Team

9.7 Corporate Finance - Risk Management