

Open Report on behalf of Andy Gutherson – Executive Director of Place

Report to: Councillor R G Davies, Executive Councillor for Highways,

Transport and I.T.

Date: **Between 24 July – 31 July 2023**

Subject: Winter Service Plan 2023

Decision Reference: 1029250

Key decision? Yes

Summary:

This report sets out the proposed amendments to the Winter Service Plan for 2023/24, in line with national guidance and best practice.

The report invites the Executive Councillor for Highways, Transport and I.T. to approve the draft plan and its appendices attached to this report.

Recommendation(s):

That the Executive Councillor approves the Winter Service Plan 2023 as attached in Appendix A of this report.

Alternatives Considered:

1. Not to approve the Plan

Reasons for Recommendation:

The Winter Service Plan documents the robust policies, procedures and standards against which the Council fulfils its statutory duties in relation to snow and ice and otherwise manages its winter services.

The Plan is updated annually so as to:

- Maintain robust standards.
- Further implement proposed changes in national standards and best practice where appropriate.
- Streamline the document to reflect current practice.

The plan has been reviewed and no changes are proposed for 2023.

1. Background

- 1.1 The Winter Service Plan should be read as a supplement to the Highways Infrastructure Asset Management Plan and sets out the policy and procedures required for Winter Service management.
- 1.2 The statutory basis for Winter Service in England and Wales is Section 41 (1A) of the Highways Act 1980 which places a duty on highway authorities to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice.
- 1.3 Lincolnshire County Council (LCC) carries out precautionary and snow clearance treatments on the road network in accordance with this policy across the County. The policy only provides for roads for which the Local Authority has responsibility. Trunk roads (the A1, A52 west of Grantham and A46 County Boundary to Carholme Road Roundabout Lincoln) within Lincolnshire and their respective winter treatment are the responsibility of Highways England.
- 1.4 The Winter Service Plan takes into account the guidance contained within the "Well Managed Highway Infrastructure A Code of Practice" document published in October 2016. This document, commissioned by the Department for Transport, provides local authorities with guidance on how to develop a highways maintenance policy based on best practice.
- 1.5 The Authority has the capability of calling upon 43 gritters strategically placed around the county, with 4 spare gritters utilised as back-ups. Treatment time of the entirety of the Precautionary Salting Network will take a maximum of 3 hours, as dictated within the policy. This Precautionary Salting Network will be treated based on the Route Based Forecasting system. This system uses weather forecasts and measures the predicted impact on the road network, highlighting where the essential needs for salting treatment, if required, are located.
- 1.6 The Winter Service Plan outlines that a minimum of 25,000 tonnes of salt is in stock at the start of the winter season, with a minimum of 15,000 tonnes available at any time throughout the season. Salt stock is managed within this Policy, which is compliant with the recommendations of national best practice and the expectations of the Department for Transport.
- 1.7 In the winter of 2021/22, the Authority carried out 63 precautionary salting turnouts, and utilised 14,805 tonnes of salt. There were no "snow days" where Severe Weather Routes were run and snow ploughing took place. In 2022/23, 68 precautionary salting runs were carried out using 18,584 tonnes of salt. There were no snow days.
- 1.8 A Winter Rally is scheduled to be undertaken in the last week of September, as part of the final preparation for the Winter Season. This Winter Rally entails training and reacquainting the Gritter drivers with the vehicles and the route, optimising the vehicles and performing final checks on the equipment used throughout the process.

1.9 A map containing the gritting routes can be found on the <u>Lincolnshire County Council</u> <u>website</u> and in addition to this we have recently added a map showing the location of grit bins in Lincolnshire.

2. Proposed Changes

The proposed Winter Service Plan has been reviewed and there are no policy or operational changes recommended for 2023.

3. Budget Information

Whilst the service delivery is set in accordance with the Winter Service Plan, the budget allocation hasn't returned to the funding position that was set during the "Financial Challenge" of 2017/18 when £759,000 was removed from the Winter budget. Since this date the wider LCC budget has needed to accommodate the severity of the winter if the number of runs typically rises above 60 call outs per annum.

To ease the budget pressure for Winter Maintenance, the service continues to implement value for money improvements such as:

- 1. LCC has changed its approach in relation to switching from leasing Gritters to LCC owning its own fleet. At the start of the Winter Season 2023/24 there will be 40 of the 47 gritters owned wholly by LCC. This equates to around £750k to £800k saving per season on leasing costs. When the final 7 gritters are off hired at the end of their lease period in 2026 savings will increase to around £950k. This reduction in revenue offsets the initial capital purchase price over the investment period outlined within the original business case.
- 2. As a result of LCC investing in modern gritters, LCC has been able to instigate a reduction in salt usage as put forward in National good practice guides. This means that LCC spread patterns have been reduced from 10, 15 and 20 gram rates to 7, 12 and 17 gram rates. Saving in salt usage is between £175k to £200k a year.
- 3. LCC has been able to increase its barn storage of salt from 24,000t to 29,000t. This means that more salt can be bought in the Summer at the discounted summer rate. This change is seeing savings of £30k to £36k a year on the discounted summer rates.
- 4. LCC has instigated route- based forecasting and decision making this has been a new development over the last two seasons. This has seen a reduction in the amount of turn outs by individual gritters seeing a 3% to 5% reduction in gritter usage.

4. Route Optimisation

To ensure that the Winter service remains fit for purpose and further reduces budgetary pressure a project to optimise the precautionary salting routes (the individual routes run by each gritter) was commenced in January 2023. The project will look to assess the current routes that are in place and test them with the latest constraints given that a number of factors have changed since the routes were set. Changes such as gritter equipment, size, salt spreading changes and additional roads that have been added means that there may be further opportunities to explore. The winter team are using optimisation software to investigate changes and efficiency in use of the new fleet. The following scenarios are being investigated with the aim of implementing them for the 2024/25 winter season;

- 1. Looking at LCC's current set up of depots, gritted roads and routes and how changes can be instigated with the new gritters to see if the old, gritted routes can be improved upon.
- 2. Looking at Winter depot positions and if they can be moved or if the depot is needed for future operations.
- 3. To investigate the current gritted network and identify if there are roads that are out of the policy scope in accordance with the latest version of the Winter Plan.

The intention is to complete this phase of work so that the recommendations can be incorporated into the 24/25 Winter Service Plan.

5. Legal Issues:

Equality Act 2010

Under section 149 of the Equality Act 2010, the Council must, in the exercise of its functions, have due regard to the need to:

- Eliminate discrimination, harassment, victimisation and any other conduct that is prohibited by or under the Act.
- Advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it.
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The relevant protected characteristics are age; disability; gender reassignment; pregnancy and maternity; race; religion or belief; sex; and sexual orientation.

Having due regard to the need to advance equality of opportunity involves having due regard, in particular, to the need to:

• Remove or minimise disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic.

- Take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it.
- Encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities.

Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard, in particular, to the need to tackle prejudice, and promote understanding.

Compliance with the duties in section 149 may involve treating some persons more favourably than others.

The duty cannot be delegated and must be discharged by the decision-maker. To discharge the statutory duty the decision-maker must analyse all the relevant material with the specific statutory obligations in mind. If a risk of adverse impact is identified consideration must be given to measures to avoid that impact as part of the decision-making process.

The Equality Act has been taken into account in this instance and an Equality Impact Analysis is attached at Appendix C. The Winter Maintenance Plan, although it is at a high level of generality, is considered to be positive in its impact on people with a protected characteristic when compared with people who do not share that characteristic. Please review the Equality Impact Analysis in Appendix C for more information.

<u>Joint Strategic Needs Assessment (JSNA and the Joint Health and Wellbeing Strategy (JHWS)</u>

The Council must have regard to the Joint Strategic Needs Assessment (JSNA) and the Joint Health and Wellbeing Strategy (JHWS) in coming to a decision.

The effect of the Winter Maintenance Plan on the JSNA and JHWS has been considered and deemed to have a positive impact. Our salting provisions are considered to be a means by which to ensure safety and subsequent health and wellbeing.

Crime and Disorder

Under section 17 of the Crime and Disorder Act 1998, the Council must exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent crime and disorder in its area (including

anti-social and other behaviour adversely affecting the local environment), the misuse of drugs, alcohol and other substances in its area and re-offending in its area.

The duties under section 17 of the Crime and Disorder Act 1988 have been considered and it is deemed that the proposed changes to the Winter Maintenance Plan will have no direct impact.

6. Conclusion

Following consideration of the report by the Scrutiny Committee, the Executive Councillor is requested to consider whether to approve the reviewed Winter Service Plan as set out in Appendix A. The Winter Service Plan 2023 will then become operational from the 1st October 2023.

7. Legal Comments:

The Council has the power to adopt the proposed Plan which is calculated to ensure compliance with the Council's statutory duties under the Highways Act 1980.

The decision is consistent with the Policy Framework and within the remit of the Executive Councillor.

8. Resource Comments:

The approved revenue budget to fund the Winter Maintenance service has historically been based on an assumed "average winter".

The service has, and continues to, secure efficiencies, which are outlined in sections 3 and 4 above. However, the effects of inflation and removal of the long-standing entitlement to use rebated diesel in gritting vehicles, results in the available budget now being sufficient to fund around 60 precautionary gritting runs per annum.

Spend is of course largely driven by weather conditions and therefore outside the direct control of the service. The significant fluctuations in demand are illustrated in the first chart provided in Appendix B, which shows that the service demand has exceeded the current budgetary assumption of 60 precautionary gritting runs per annum in eight of the last ten years. This results in a significant risk that expenditure will exceed the available service budget. This risk is mitigated by regular monitoring and re-forecasting of expenditure across the entire Highways service and the availability of contingency funding within the approved revenue budget.

9. Consultation

a) Has Local Member Been Consulted?

N/A

b) Has Executive Councillor Been Consulted?

Yes

c) Scrutiny Comments

The report will be considered by the Highways and Transport Scrutiny Committee at its meeting on 17 July 2023. Any comments from the Committee will be presented to the Executive Councillor for Highways, Transport and I.T.

d) Risks and Impact Analysis

An EIA has been carried out and is attached in Appendix C.

10. Appendices

These are listed below and attached at the back of the report	
Appendix A	Winter Service Plan 2023
Appendix B	Winter Data Report 2023
Appendix C	Equality Impact Analysis for the Winter Service Plan 2023

11. Background Papers

The following background papers as defined in the Local Government Act 1972 were relied upon in the writing of this report.

Document title	Where the document can be viewed
Well Managed Highways	https://www.ciht.org.uk/ukrlg-home/code-of-practice/
Infrastructure	

This report was written by Clair Dixon, who can be contacted by email at Clair.Dixon@lincolnshire.gov.uk.

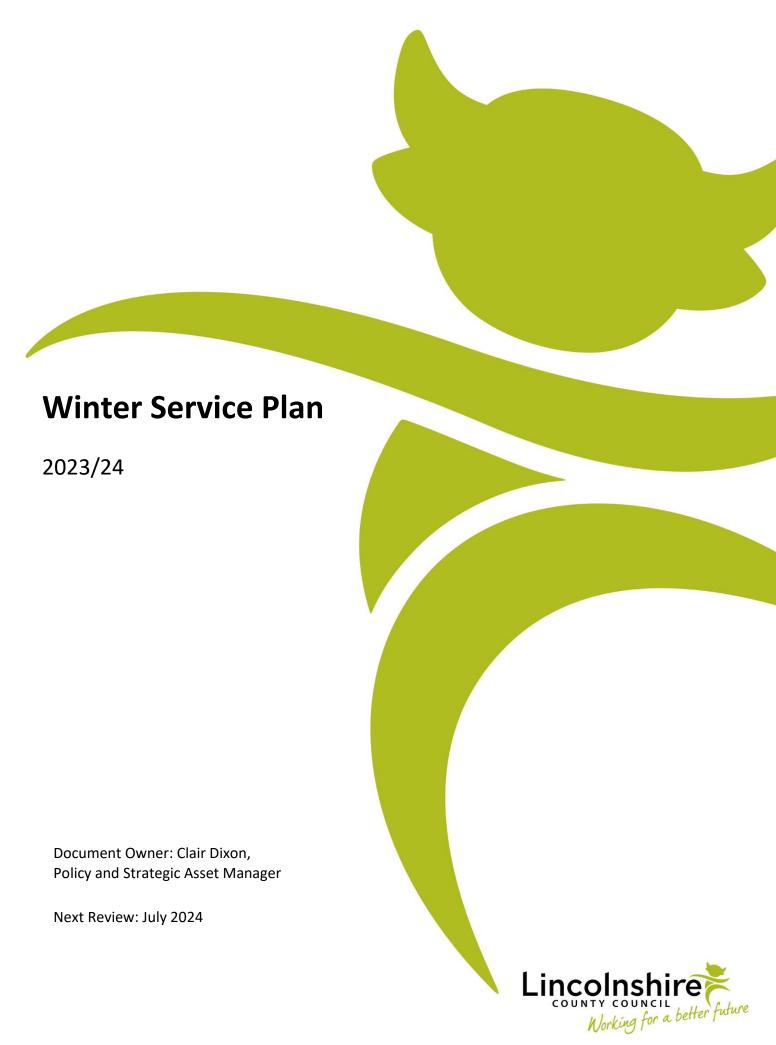


Table of Contents

Registry of Amendments			
1.	General 5		
1.1.	Key Points5		
1.2.	Introduction 6		
2.	Policy		
2.1.	Resilient network		
2.2.	Precautionary salting network		
2.3.	Severe winter weather and extreme winter weather		
2.4.	Severe weather routes		
2.5.	Treatment priorities: triage system		
2.6.	Footway treatment		
2.7.	Weather stations		
2.8.	Decision making		
2.9.	Response times		
2.10.	Grit bins		
2.11.	Budget		
2.12.	Plant		
2.13.	Cross-boundary agreements		
2.14.	Road not gritted signs		
2.15.	Mutual aid arrangements		
3.	Procedures		
3.1.	Decision making process		
3.2.	Salt and salt storage		
3.3.	Precautionary salting		

	3.4.	Treatments for snow, ice and freezing rain		
	3.5.	Snow clearance protocol	. 22	
	3.6.	Snow room (multi – agency emergency)	. 23	
	3.7.	Media	. 25	
	3.8.	Weather forecast service	. 26	
	3.9.	Route based forecasting	. 26	
	3.10.	Treatment flowcharts	. 27	
	3.11.	Cross boundary agreements	. 27	
	3.12.	Public self-help guidance literature	. 31	
	3.13.	Use of rebated diesel oil (red diesel)	. 31	
	3.14.	Mutual aid and self-help arrangements with Parish and District Councils	. 31	
٩ _I	ppendice	es ·		
	Append	lix A – Main villages in Lincolnshire	.33	
	Append	lix B – Network evaluation form	.36	
	Append	lix C – Evaluation for additional grit bins	.37	
	Append	lix D – Midlands Service Improvement Group treatment table	.38	
	Append	lix E – Precautionary salting for dry or damp road conditions	.40	
	Append	lix F – Precautionary salting for wet road conditions	.41	
	Append	lix G – Snow clearing process	.42	
	Append	lix H – Self help tips – clearing snow off the carriageway	.43	
	Append	lix I – Self help tips – clearing snow from footways	.44	
	Appendix J – Precautionary salting routes45			
	Append	lix K – Resilient Network	.49	

Registry of Amendments

Amendment Number	Date	Brief Description of Amendments made	Name and Job Title
1	June 2023	Annual review by Darrell Redford. No amendments required.	Clair Dixon, Policy and Strategic Asset Manager

1. General

1.1. Key Points

Precautionary salting network

1.1.1. We prioritise 3,018 km of our road network in the form of a Precautionary Salting Network.

Triage

1.1.2. A Triage of Escalation as a response to Severe Weather. The Resilient Network (minimum winter network) will be our first priority to be made safe during a severe weather event. The Precautionary Salting Network is the subsequent priority and Severe Weather routes will be considered as a third priority.

Route based forecasting

1.1.3. The Winter Service has moved away from solely temperature—based forecasting to a Route Based Forecasting system which improves efficiency and achieves better value for money. Innovations in forecasting technology now allow the Forecast Service Provider to provide a "route-based forecast", which is effectively an individual forecast for each of the 43 precautionary salting routes, each of which is divided into multiple sections. Temperature, however, continues to form part of the decision-making process alongside Route Based Forecasting.

Salting stock

1.1.4. A minimum of 25,000 tonnes of salt should be in stock at the start of the winter season, with a minimum of 15,000 tonnes available at any time across the county. These salt stocks are kept under cover within our local highways depots.

Treated salt

1.1.5. Treated Salt will be utilised in all seven depots. This consists of brown salt that has been treated with a natural agricultural by product. Treated salt facilitates better gritting of the roads by helping the salt stick to the road making the salting process less dependent on weather conditions.

1.2. Introduction

- 1.2.1. A <u>Highways Infrastructure Asset Management Plan</u> is produced and updated annually. This plan sets out standards, policy and objectives for the highway network. The Winter Service Plan is a supplement to the Highways Infrastructure Asset Management Plan.
- 1.2.2. We carry out precautionary and snow clearance treatments on carriageways and footways in accordance with this approved policy across the County.
- 1.2.3. All Trunk Road treatment is carried out by National Highway's Contractors as part of the Area 7 agency, which is run by National Highways. The Trunk Road network includes the A1, A52 west of Grantham and A46 County Boundary to Carholme Road Roundabout Lincoln.
- 1.2.4. There are eight operational depots in the County. These are located at Sturton by Stow, Willingham Hall, Manby, Horncastle, Ancaster, Thurlby, Chainbridge and Pode Hole.
- 1.2.5. All operations are carried out taking regard of National Guidance and Best Practice contained within the following documents:
 - Section 7 of Well Managed Highway Infrastructure A Code of Practice.
 - National Winter Service Research Group Practical Guide for Winter Service.
- 1.2.6. Winter Service will operate and prioritise on the basis of Safety, Serviceability, Sustainability and Customer Service.

2. Policy

2.1. Resilient network

- 2.1.1. Within the <u>'Well-Managed Highway Infrastructure' Code of Practice</u> it was highlighted and recommended that each Local Authority should have a Resilient Road Network.
- 2.1.2. The Code of Practice describes a resilient network as a road network which "receives priority through maintenance and other measures in order to maintain economic activity and access to key services during disruptive events." This road network includes crucial economic routes whilst taking into account repeat weather events and additional local factors.
- 2.1.3. Another element to generating a Resilient Network is defining a Minimum Winter Network linking into this road network. It is our policy to maintain a focus on the key parts of our road network when severe weather events arise by developing a Minimum Winter Network linked into the Resilient Network system.
- 2.1.4. Our Resilient Network identifies all the critical routes within the County which are classed as priority in severe weather incidents. This takes into account connectivity to major communities, access to emergency services, links to all critical infrastructure and transport hubs, repeat weather events and additional local factors.
- 2.1.5. Our Resilient Network consists of the statutory A and B Roads map layer and the drawn on routes within the main towns that consider the essential points which are included in the Code of Practice. The main elements to determine inclusion are:
 - connectivity between major communities;
 - links to the strategic highway network;
 - connectivity across authority boundaries where appropriate;
 - links to transport interchanges;
 - access to emergency facilities including Fire and Rescue, Police, Ambulance Services and hospitals;
 - links to critical infrastructure (ports, power stations, water treatment works etc);
 - principal public transport routes, access to rail and bus stations, and to bus garages and other depots; and
 - other locally important facilities.

2.1.6. Consultation on the Resilient Network has taken place between internal and external partners to determine the routes, with organisations such as Utility Companies and Emergency Services being consulted.

2.2. Precautionary salting network

- 2.2.1. Our Winter Service operations will give priority to a 3,018 km network of priority routes, as shown in Appendix J and on our <u>website</u>, which have taken into account historical treatment and public awareness. This network is defined as:
 - 1,200 km Lincolnshire Local Strategic Road Network which includes the A and B road network.
 - Links to all the county's main villages, as defined in Appendix A.
 - Where physically possible, treated links to within at least 500 m of all primary and secondary schools.
 - Links between all main NHS hospital and the treated network.
 - Links between all railway and bus stations and the treated network.
 - That the incorporation of certain combined public service and school bus routes into the priority network be considered. However, their inclusion be based upon criteria taking into account historical accident data, pupil numbers and geographical risk factors. It should be noted that all public service and school bus drivers are professional PSV drivers trained to drive in winter weather conditions.
- 2.2.2. All treatments shall be carried out using appropriate action for the prevailing conditions in accordance with national guidance and best practice. Winter service operations comprise precautionary salting and snow clearance. It is not realistic to treat the entire county's circa 9,255 km road network and first call on resources is given to a 3,018 km network of priority routes.
- 2.2.3. All future requests for roads to be included into the Precautionary Salting Network will be evaluated against the above criteria. Wherever practicable there will be continuity with cross border routes. All requests for additions to the Precautionary Salting Network will be considered and rated against a set of objective criteria with the assistance of a Network Evaluation form. The findings will be summarised and a report presented to the Executive Councillor for Highways. This will be completed out of season as detailed in Appendix B.
- 2.2.4. Roads not on the Precautionary Salting Network and footways are not normally treated on a precautionary basis, the exception being at times of Severe or Extreme forecasts of snow as defined in Section 2.3.

2.3. Severe winter weather and extreme winter weather

- 2.3.1. Severe winter weather is defined as persistent widespread ice (rather than frost) or snow for more than 18 hours in a 24hour period and a forecast not to rise above zero for a further 18 hours in the next 24 hours. Or a forecast, with a high confidence of significant snowfall resulting in accumulations of 5 cm or more or where drifting is expected and conditions are forecast to persist for at least 24 hours.
- 2.3.2. Extreme winter weather is defined as a period of widespread prolonged snow, following a period of severe winter weather, of sufficient depth to cause disruption to both the treated and non-treated highway network. During periods of extreme winter weather, we may not have sufficient resources available to treat either the severe weather route network or the footway networks, in addition to keeping the Precautionary Salting Network open. In these circumstances additional resource will be considered. The Executive Director of Place, as a Category 1 Responder, will declare an emergency under the Civil Contingencies Act 2004 and call for the setting up of a Strategic Co-ordination Group (see Section 3.6).
- 2.3.3. The definition of severe and extreme weather in a winter service context seeks to ensure consistency and define a standard when the public can expect the treatment of severe weather routes and footways to commence.

2.4. Severe weather routes

- 2.4.1. The Severe Weather Network for winter service operations contains routes that enable accessibility to important local services and villages. It consists mainly of carriageways leading to communities not covered by the Precautionary Salting Network.
- 2.4.2. The Severe Weather Network will only be gritted in times of severe or extreme weather, and after the security and accessibility of the Minimum Winter Network and Precautionary Salting Network has been assured by the Network Resilience Team.
- 2.4.3. The Network Resilience team will prepare a network of severe weather highway routes reflecting the above policy and will treat in whole or in part according to prevailing conditions.
- 2.4.4. Using the expertise and local knowledge from our Local Highways Managers alongside effective Asset data regarding the County's road network, the Severe Weather routes will incorporate a set of defined carriageways leading to important local facilities.
- 2.4.5. For reasons of safety, normally roads on the Severe Weather Network will only be treated during the hours of daylight.

2.5. Treatment priorities: triage system

- 2.5.1. At times of severe or extreme winter Weather and, or prolonged Winter Weather, as defined in Section 2.3, Network Resilience will instigate a Triage System ensuring there is a robust approach in the way the road network is managed and the gritting routes are prioritised during severe winter weather. The treatment priorities will be as follows:
 - i. Minimum Winter Network, known as the Resilient Network defined in <u>Section 2.1.</u>
 - ii. Carriageways on the approved 3,018 km Precautionary Salting Network as defined in Section 2.2.
 - iii. Carriageways on the Severe Weather Network as Section 2.4.
 - iv. Footways in accordance with <u>Section 2.6.</u>
- 2.5.2. The triage system will ensure the Minimum Winter Network routes; all included in the Resilient Network, are gritted and cleared as a first priority. The Precautionary Salting Routes will then be gritted as soon as the Resilient Network has been cleared and preserved. Following this, or if the severe weather prevails, Network Resilience will prompt the gritting on the Severe Weather Routes.
- 2.5.3. When dealing with snow bound or compacted ice on carriageways, treatments employing a mixture of salt and grit/sharp sand shall be first choice. In times of extremis and to aid traction, grit on its own should be considered for routes not on the Precautionary Salting Network and the Footway Network.
- 2.5.4. Variations in the above priorities may be necessary to suit local conditions and the efficient planning of treatment routes. Liaison between Districts will be undertaken prior to treatment of the Severe Weather Routes to ensure a consistent standard of service with adjacent areas when dealing with severe frost.
- 2.5.5. Remedial treatment decisions are based on the above priorities and knowledge of local conditions.

2.6. Footway treatment

- 2.6.1. During periods of severe or extreme winter weather the treatment of footways will be considered when resources permit. Footways to be treated will reflect their importance in the County's footway hierarchy as defined in the Highways Infrastructure Asset Management Plan. The footway priority network for winter service operations, in descending order of importance, consists of:
 - Hierarchy 1a. Each Area will keep a list of footways in and around Transport
 Interchanges, including footways to main car parks, designated Hierarchy 1a. The
 designation 1a will be for winter service purposes only.

- ii. Hierarchy 1 and 2 footways.
- iii. Hierarchy 3 footways with gradients greater than 1 in 10 longitudinally, for longer than 50 metres.
- iv. Other Hierarchy 3 footways.
- v. Hierarchy 4 footways.
- 2.6.2. When a period of severe or extreme winter weather, as defined in <u>Section 2.3</u>, is experienced or forecast consideration will be given to treating Hierarchy 1a footways prior to the onset of these conditions.
- 2.6.3. We have adopted the Midlands Service Improvement Group (Winter Maintenance) Winter Service for Footways and Cycleways Treatment Table as the winter service standard for footways and cycleways. See Appendix D.

2.7. Weather stations

- 2.7.1. A system of local weather stations will be operated and used both to feed into the weather forecast model and to monitor local conditions. A professional forecasting service will be used to guide treatment decisions.
- 2.7.2. We own and use 12 roadside weather stations around the County. These weather stations are positioned so that there are sufficient weather stations in each of Lincolnshire's 6 weather domains (Coastal, Wolds, Lincoln Edge, Trent Valley, Fenlands and Grantham) giving us data for accurate winter road forecasting for the gritter service as well as monitoring of actual data by our winter decision makers and Out of Hours staff.

We also have access to 10 other weather stations owned by National Highways and adjacent Authorities (with permission) that are in the County or close to our border. These are used to assist forecasters and decision makers in their gritting decisions, as well as being monitored by the Winter Team and Out of Hours staff (particularly in predicting severe weather events such as snow).

The data for these stations (actual and forecast) are displayed together in our weather station software package which is accessed by decision makers and the Winter Team.

2.7.3. Information from these sites is supplemented by information from adjacent sites in other Counties and fed into the weather forecast model. It is also used to check on temperature (air and road), humidity and wind speed. The sites enable both improved local forecasts to be obtained and actual conditions monitored. All the information can be accessed using a desktop or laptop PC, or on smartphones and tablets.

2.8. Decision making

- 2.8.1. During the winter service period of 1st October to 30th April, our trained staff (Duty Officers) will monitor weather forecasts and weather conditions on a 24-hour basis. This will enable treatment decisions to be tuned to changing winter weather conditions. The Duty Officer is authorised to make certain winter service treatment decisions as detailed below:
 - During the normal working day there will be a Duty Officer on duty who is authorised to make precautionary salting treatment decisions.
 - In addition, the Duty Officer will control all footway and Severe Weather Route treatment and during times of snow will liaise with Local Highway Managers and the Incident Control Rooms.
 - The Duty Officer will also be available for consultation at all times.
- 2.8.2. At all other times winter service operations will be monitored and controlled by the Winter and Emergency Duty Officer on shift. These officers are authorised to make precautionary salting treatment decisions only. They will consult with the Duty Officer to maintain an input to all actions.
- 2.8.3. All Staff making winter service decisions shall be suitably trained. Competence is demonstrated by the following:
 - i. Completion of the MeteoGroup Road Weather Training Course
 - ii. Completion of the Vaisala Winter Weather Scenario Training
 - iii. Within a 5-year period, completion of one of the above courses as a refresher.
- 2.8.4. Guidance on the decision making process is contained within flowcharts at Appendix E, Appendix F and Appendix G.

2.9. Response times

- 2.9.1. The response required from the Term Contractor on the Precautionary Salting Network when an urgent precautionary salting call-out is notified is:
 - Spreaders to be loaded and depart from operational bases within 1 hour.
 - All routes to be treated within four hours of spreaders leaving the depot.
- 2.9.2. Initial decisions are to be notified to the Highway Works Term Contractor by 12:00 every day. Where possible, longer notice is given to the contractor of the time when treatment is to be started.

2.9.3. The winter service contract includes for a 1 hour response time. The treatment time for all routes is less than 3 hours.

2.10. Grit bins

- 2.10.1. Salt and grit bins will be provided and maintained on request if the location meets criteria set out in Appendix C and a responsible body undertakes to:
 - Spread salt and, or grit when necessary; and
 - Inform the Network Resilience Team when it needs refilling
- 2.10.2. Salt and grit bins shall only be filled with a 50/50 mixture of salt and grit or sharp sand.
- 2.10.3. These bins are provided on a self-help basis to local communities to treat known local trouble spots on the public highway not covered by the Priority Route Network.
- 2.10.4. A responsible body shall be defined as a parish or town council, community groups, residents association or educational establishments. We will only accept requests from those who would act as a responsible body.
- 2.10.5. Salt and grit bins will not be provided at sites which are prone to vandalism or other damage or where they have waste put in them.
- 2.10.6. Evaluation for additional Salt and grit bins requests will be carried out before each winter season. All requests will be considered and rated against a set of objective criteria with the assistance of grit bin evaluation form. This will be completed out of season as detailed in Appendix C.
- 2.10.7. A plan showing the location of existing grit bins can be found on our website.

2.11. Budget

- 2.11.1. The budget for winter service will be based on expenditure in an average winter with annual fluctuations catered for wherever possible within the highway service.
- 2.11.2. Winter service expenditure in any single financial year is subject to the vagaries of the winter weather. Hence there can be large unpredictable fluctuations between years. The normal practice in a Severe or Extreme Winter has been for the excess expenditure over the budget to be financed from corporate contingency.

2.12. Plant

- 2.12.1. To ensure we have sufficient resources for our winter service operations we will provide as a minimum:
 - 43 front line gritters
 - four spare gritters
 - 47 snow ploughs
 - eight operational centres at which gritters and salt supplies will be based
 - at the start of each winter season there will be a minimum of 25,000 tonnes of salt in stock.
- 2.12.2. The above resources will not always be needed but are the minimum deemed necessary to provide a reasonable level of service in all but the most severe conditions. At such times extra resources, including plant and labour, are hired in as necessary and as available.
- 2.12.3. Before the start of each winter season agreements are made with local farmers, hauliers and other contractors on such matters as plant and labour availability and hire rates.

2.13. Cross-boundary agreements

- 2.13.1. We will enter into cross border agreements to maximise efficiency and consistency of treatment with adjacent authorities on reciprocal treatment arrangements on certain roads. Where this occurs each authority will treat the section of road concerned in accordance with their authority's winter service policy and in agreement with an exchange of letters under Section 8 of the Highways Act 1980.
- 2.13.2. <u>Section 3.11</u> contains a list of agreed cross boundary routes.

2.14. Road not gritted signs

- 2.14.1. We will not erect any additional permanent "road not gritted" signs on the network.
- 2.14.2. Existing signs on the network will continue to be maintained.

2.15. Mutual aid arrangements

2.15.1. Mutual aid arrangements shall be prepared, where possible, with all other Category 1 responders as defined under the Civil Contingencies Act 2004. These will come into operation during periods of Extreme Winter Weather as defined in Section 2.3.

- 2.15.2. An agreement in principle has been reached with the local NHS Trust to maintain access to all critical hospital sites within the county, which include:
 - Lincoln County Hospital
 - Grantham Hospital
 - Pilgrim Hospital Boston
 - John Coupland Hospital, Gainsborough
 - Louth Hospital
 - Skegness Hospital
 - Johnson Hospital Spalding
- 2.15.3. The main access route into and through all of the above establishments will be maintained by a mainline gritter during this period if the local NHS Trust resources cannot cope. Salt may also be provided to enable the footways within the hospital grounds to be treated, with the NHS utilising its resources to maintain access on adjacent public highway footways. The above is subject to resource constraints at the time.

3. Procedures

3.1. Decision making process

- 3.1.1. The Duty Officer is in receipt of winter weather forecasts by approximately 11:00 daily and an instruction relating to precautionary salting normally will be passed to the Term Contractor by 12:00 on the same day. The instruction will be passed using the Bureau Service Provider's winter maintenance management software.
- 3.1.2. The Winter and Emergency Duty Officers will be responsible for decisions during any other time.
- 3.1.3. The decision relating to salting may take one of several forms:
 - **Standby A**: Confirmed salting of all or specified routes where drivers and operators are to be given details of timings, salt loads and rate of spread.
 - **Standby B**: Confirmed stand-by for a possible requirement for salting of all or specified routes where drivers are to report to the operational centre and to be immediately available to perform duties as we require.
 - **Standby C**: No action at present but drivers to remain available to go if required over the next 24 hours.
 - **Standby D**: Precautionary salting is unlikely to be required over the next 24 hours.
- 3.1.4. Response times are defined as the period between issuing instructions to carry out salting and the vehicles are loaded, manned and ready to leave the depot. On all salting operations, the response time shall not exceed one hour unless approved by the Duty Officer regardless of the time of day or night that the instruction is given. The Highway Works Term Contractor shall ensure that all manpower engaged upon these operations can achieve this specified response time.
- 3.1.5. Standby is a requirement for drivers and operatives to report at a specified time to the depot in readiness to carry out winter service operations. This item will also apply in the event of a precautionary salting run abandoned before vehicles have left the depot.
- 3.1.6. Decisions will only be made by members of staff who comply with the requirements in Section 2.8.
- 3.1.7. Decisions will be made using the Precautionary Salting Flow Charts found at Appendix E, Appendix F and Appendix G and will take into account other factors including:
 - Any expected residual salt level based on professional experience and utilising the grip factor readings from the roadside weather station system.

- Professional guidance from the Forecast Service Provider.
- Decision to treat only part of the priority network can be taken utilising Route Based Forecast.
- 3.1.8. It is acknowledged, that on occasions, part(s) of the Precautionary Salting Network may experience localised isolated or limited extents of ice or hoar frost, such as bridge decks. This is due to local meteorological conditions. In these circumstances no treatment will take place; it is the primary responsibility of the motorist to take care of their own safety.

3.2. Salt and salt storage

- 3.2.1. Where possible all salt stocks will be kept under cover in salt barns. Where this is not possible, all external salt stocks will be kept covered using waterproof sheeting systems.
- 3.2.2. All salt will be regularly tested for compliance with standards set out by Lincs Laboratory.
- 3.2.3. We utilise treated salt to grit its network.
- 3.2.4. Treated salt operates with brown salt that has been treated with a natural agricultural by product. Such treatment causes the salt to adhere to the carriageway, making it less susceptible to losses from wind and allowing for lower spread rates.
- 3.2.5. The treated salt will be managed using a stock management system which will allow for regular topping up of the salt stock. It is our policy to top up our treated salt stock after the use of 500 tonnes of salt per depot.

Ordinarily salt stocks shall be maintained to ensure a minimum of 15,000 tonnes is available at any one time across the county, with a minimum of 25,000 tonnes available at the start of the season. This has been altered recently in accordance with national standards and practices that have been developed for nationwide snow conditions.

3.3. Precautionary salting

- 3.3.1. Roads off the Precautionary Salting Network are not normally treated on a precautionary basis. They may only be treated due to localised factor such as a burst water main or standing water due to field runoff.
- 3.3.2. Precautionary salting may also be carried out on Severe Weather Routes when prolonged low temperatures, with attendant risk of icy roads, or persistent frosts occur in accordance with Section 2.3 and Section 2.15.

- 3.3.3. 43 dedicated front-line gritters shall be utilised for precautionary salting.
- 3.3.4. Four spare gritters shall be utilised as back-ups to front line gritters, located strategically at depots across the County.
- 3.3.5. Treatment time shall be a maximum of three hours.
- 3.3.6. Any Precautionary Salting Route not completed when road temperatures rise above 0.5 degrees Centigrade will be reviewed by the Winter and Emergency Duty Officer and a decision made whether or not to stop salting.
- 3.3.7. Network Resilience staff will have access to the Bureau Service Provider's Management system and the Forecast Service Provider's systems.
- 3.3.8. In the event of uncertain weather forecasts, decisions should be weighted in favour of salting.
- 3.3.9. The winter service season is divided into two periods:
 - High risk November to March.
 - Low risk October and April (instructions are only issued when salting is required).
- 3.3.10. We will not respond to requests for treatment off the gritted network by the Police, unless as detailed in 3.3.1.
- 3.3.11. Precautionary spreading operations are carried out utilising treated salt.
- 3.4. Treatments for snow, ice and freezing rain
- 3.4.1. We have a statutory duty under Section 150 of the Highways Act 1980 to remove obstructions. Snow is considered to be an obstruction when it impedes the use of the road network.
- 3.4.2. The Forecast Service Provider will provide national weather warnings if any sizeable accumulations of snow are expected.
- 3.4.3. The following are treatments timings for snow and ice:

Timing of Treatment	Treatment Type
Before snowfall and freezing rain	Salt spreading

Timing of Treatment	Treatment Type
During freezing rain, or where there are minor accumulations of ice	Salt spreading
After snowfall when there is slush on the road	Ploughing Salt spreading
After snowfall when there is compacted snow or ice on the road	Ploughing Salt spreading Salt and abrasive mixtures Abrasives only

- 3.4.4. When snow is forecast advanced salting at 20g per m² dry will take place on the Precautionary Salting Routes. Time permitting a further run may be carried out to increase salt coverage to 40g per m² dry. Pre-snow salting may be considered for Severe Weather Routes if time permits. This will provide a de-bonding layer and facilitate the breakup and dispersal of snow by subsequent treatments and traffic.
- 3.4.5. Depots which may be affected by the snow will be notified to Fleet Services, the external contractor responsible for the maintenance of the vehicles, to inform them of the impending falls. They will be asked to ensure that fitters will be available to change plough blades etc. at these depots when required.
- 3.4.6. Snowfalls will be categorised into one of the following types:
 - Heavy snowfall Over 100mm or moderate snowfall is drifting. Normally dealt with by ploughing.
 - Moderate snowfall Over 25mm and up to 100mm. Normally will be dealt with by ploughing and salting.
 - Light Snowfall up to 25mm. normally will be dealt with by additional salting unless drifting occurs.
- 3.4.7. It is impractical to spread sufficient salt to melt more than very thin layers of snow and ice. Ploughing is the only economical, efficient, effective and environmentally acceptable way to deal with all but light snow. Therefore, when snowfalls are forecast that could create plough-able conditions (25mm or greater) the Highway Works Term Contractor will be contacted to fit ploughs to gritters and to arrange crews for clearing and salting footways.
- 3.4.8. Each vehicle will be given specific routes to plough.

- 3.4.9. The modern Schmidt Cirrion and equivalent snow ploughs with ceramic or steel blades fitted to the gritter fleet are designed to plough back to the carriageway surface (plough to black).
- 3.4.10. When heavy snowfall is forecast, the Network Resilience team will contact respective contractors and farmers to arrange additional resources.
- 3.4.11. When prolonged falls are forecast, continuous ploughing to prevent snow build-up should commence. The ploughing can be combined with simultaneous salting at 20 40g per m² Dry (Abrasive mixture 50/50 mixture of sand and salt to be considered) so that a wet base can be maintained. Once the snow depth has reached 100mm or the snow is drifting, or the gritter is salting on a gradient it may be desirable to plough without salt. (The salt should still be loaded as it will aid the traction of the gritter to the maximum legal weight limit of the vehicle. (i.e. (as a general rule) if the plough is fitted then the vehicle can carry a full hopper load of salt provided).
- 3.4.12. Roads with vertical speed humps will not be ploughed. Vertical speed humps must be detailed on all route cards for the driver, as their presence constitutes a driving hazard whilst carrying out ploughing operations.
- 3.4.13. As snow melts due to the action of salt, slush may build up on the road. Ploughing may have to continue to remove this slush build up.
- 3.4.14. If conditions deteriorate to an extent that resources cannot maintain the Precautionary Salting Network then certain roads will have to be abandoned.
- 3.4.15. Resources can be redeployed to maintain essential roads and when necessary be used to assist the emergency services in particularly urgent or life threatening situations. In these conditions the snow room maybe set up in accordance with our Emergency Plan, at the Emergency Planning Centre.
- 3.4.16. When conditions improve such that the Precautionary Salting Network is satisfactorily cleared then resources will then be directed to clearing firstly severe weather routes and then other routes in order of importance. Crews will be directed to clear other footways only after hierarchy 1a footways have been cleared and treated as set down in Section 2.6.
- 3.4.17. Snow Clearance Priority:
 - i. Minimum Winter Network.
 - ii. Precautionary Network (including access to emergency services buildings).
 - iii. Severe Weather Routes.

- iv. Other important locations (including essential industrial and military establishments, mainline stations, bus garages, shopping centres, schools and pedestrian areas).
- v. Other Commuter routes.
- vi. Single accesses to villages, hamlets and rural communities.
- vii. Residential roads and footways.
- viii. Roads to single premises.
- 3.4.18. When snow clearing is in operation it is vitally important to liaise with neighbouring Districts and adjacent Authorities, particularly when moving from precautionary salting to snow clearing or vice versa, to avoid non-treatment of certain parts of the network. This is particularly important with reciprocal salting arrangements.
- 3.4.19. Priority should be given to footways in shopping areas and where there is a high proportion of pedestrian traffic, in accordance with <u>Section 2.6.</u>
- 3.4.20. Level Crossings Network Rail or the appropriate rail authority should be contacted when ploughing starts by Local Highways Officers. This is to ensure that railway tracks at level crossings are not blocked by snow.
- 3.4.21. Post-snow action The following work shall be given consideration after snow operations:
 - i. Clear all gullies and drainage outlets of obstructions.
 - ii. Sweep significant accumulations of grit from the carriageway and footways as soon as possible.
 - iii. Thoroughly wash down all vehicles and lubricate gritting equipment.
 - iv. Check all equipment and repair or replace all worn parts on snow ploughs, and report on plant performance to the network manager.
 - v. Salt stocks level should be closely monitored and replenished as necessary.
 - vi. Inspect roads for frost damage and carry out any remedial work necessary to make the carriageway free of safety defects.
- vii. Inspect bridges and culverts liable to flooding to ensure that they are clear of debris.
- viii. Carry out a survey of badly affected locations reporting to network management including a generalised assessment of other frost, snow or flood damage.

- ix. Sign defects where appropriate, ensuring "flood" boards and other relevant signs are available.
- x. Network Resilience Team to evaluate overall performance in consultation with Local Highways Teams, Term Contract and Fleet Services Contract staff, and recommending changes to procedures to be incorporated into this document.

3.5. Snow clearance protocol

- 3.5.1. Between 5pm and 8am at weekends and at bank holidays the Network Resilience Manager will be contacted by the Winter and Emergency Duty Officer when snow begins to fall. At other times the Duty Officer is to maintain close contact with the Forecast Service Provider when snow is forecast.
- 3.5.2. Out of Hours, the Duty Officer will contact the following staff as soon as it has been determined that ploughs are to be fitted:
 - Network Resilience Manager
 - Local Highways Managers
 - Term Maintenance Contractor
- 3.5.3. If it is considered before the event that ploughs may be needed during the night, the Network Resilience Manager and Local Highways Managers should be aware of such action.
- 3.5.4. Snow clearing operations based on the non-Precautionary Salting Network will be coordinated by the Network Resilience team in liaison with Local Highways Managers. Operational instructions will be passed to the Term Maintenance Contractor who will be based at the operational depots, plus other Contractors.
- 3.5.5. The Network Resilience Manager will normally be in overall control of decisions such as when the Precautionary Salting Network is satisfactory for moving to Severe Weather Routes.
- 3.5.6. The Network Resilience Team are to ensure that the details of plant in use are recorded on a daily basis during periods of snow.
- 3.5.7. In the event of a Network Operations Room being opened for snow conditions as part of a Level 1 Emergency (as defined in our Incident Response Plan as part of our Emergency contingency planning) a road condition report will be completed by the Network Operations Room staff and forwarded to the Network Resilience team as soon after 9am as possible daily.

- 3.5.8. As soon as possible after the end of each shift or period the Network Resilience team will agree with the Highway Works Term Contractor the labour and plant used and finalise a daily plan report. This will form the basis of an agreed measurement duly signed by both Client and Contractors. Note: All contract item numbers to be agreed at this stage.
- 3.5.9. The agreed report will also contain details of salt and grit used which should be used to update records of salt stocks.
- 3.5.10. During snow operations where Contractor Patrol Crews (a two man team from the Contractor) are employed between the hours of 7pm and 6am, although allocated to predetermined routes, the Winter and Emergency Duty Officer may be required to direct these crews to other locations within the County. A detail log of action should be emailed by the Winter and Emergency Duty Officer to the relevant Local Highways Manager by 6am the following day.

3.6. Snow room (multi – agency emergency)

- 3.6.1. The Executive Director of Place, as a Category 1 Responder, will declare an Emergency under the Civil Contingencies Act 2004 and call for the setting up a Strategic Coordination Group see Section 2.3 for further details. This will be in accordance with the Lincolnshire Resilience Forum's Severe Weather Plan and our Incident Response Plan.
- 3.6.2. The following organisations may have representatives in the snow room when it is in operation:
 - Lincolnshire County Council Highways and Transportation
 - Lincolnshire Police
 - Lincolnshire Fire Brigade
 - Health Authority Ambulance Service
 - District Councils
- 3.6.3. The Snow Room will be set up in the Civil Contingencies Centre at Fire and Rescue Headquarters.
- 3.6.4. The Police will inform Highways and Transportation, when the actual, or expected levels of public calls become significantly greater than normal switchboard manning can handle or there is an increase in road traffic collisions.

- 3.6.5. The Winter and Emergency Duty Officer will transfer to and operate from the snow room.
- 3.6.6. Once the decision is made to open the snow room it should be activated as quickly as possible. This should be within four hours.
- 3.6.7. The main task of the Highways Representative once communications are established is to make contact with each Local Highways Manager to determine the initial status of the County's roads. This information is then plotted on the wall map in the snow room.
- 3.6.8. Once sufficient information is available and the public phone lines are in operation through the Customer Service Centre, these phone numbers are broadcast by local radio thus enabling the public to make contact. The Executive Director of Place is then informed that the snow room is "going public".
- 3.6.9. The primary task of the Highways Representative is to maintain a constant flow of up to date information to the other liaison officers and the public phone desks. Information is then circulated in the snow room.
- 3.6.10. Local knowledge of villages and the road network should be passed by Local Highways Staff to the Highway Representative.
- 3.6.11. The Highways Representative has no dealings in the operational role of controlling snowploughs, other vehicles or the control of the labour force except in an emergency situation (in agreement with relevant District).
- 3.6.12. The police will trace owners of abandoned vehicles and contact them.
- 3.6.13. A supply of forms and copies of "Winter Maintenance Route" maps are kept for reference purposes.
- 3.6.14. Police emergencies are mainly missing person problems. This is usually dealt with at Police Divisional level, but where a significant problem occurs then this is transferred to Police Headquarters. In both situations the police may request that the snow clearing vehicles are asked to keep a look-out for people or bodies on the highway in certain specific locations. This request is passed initially to the Network Manager who may authorise direct contact between snow clearing vehicles and the snow room for further updates.
- 3.6.15. Fire and medical emergencies usually concern blocked roads on the route to a life and death situation which require us to assist in clearing passage for vehicles to their destination and return. In this case it is the responsibility of the Network Manager to arrange reallocation of resources.

- 3.6.16. In an emergency situation, after the initial reaction has been dealt with, then the Executive Director of Place must be informed of any changes in the situation and the final outcome.
- 3.6.17. The callout of RAF or Army equipment (helicopters, ambulances, fire fighting and snow clearance equipment) is in the hand of relevant emergency services and Assistant Director (Highways) or Executive Director of Place. The Highways Representative in the snow room has NO authority to call upon this equipment, but when such equipment has been called upon then liaison is the same as above.
- 3.6.18. This process forms part of a Level 3 Response as defined in our Incident Response Plan as a Highways and Flood Authority. For smaller scale severe weather events, the Level 0, 1 and 2 processes in this document will be followed.

3.7. Media

- 3.7.1. Coverage by the media of winter service and particularly snow clearance is important in making the public aware of the service provided and what roads are open or closed.
- 3.7.2. We will need to establish working arrangements with the local media to enable the presentation of timely and accurate information of which roads are open and which are closed. Local radio in particular considers this to be an important part of their broadcasting duties, and therefore provides an opportunity to build a good working relationship over wider issues.
- 3.7.3. It is important for us to clarify and agree respective services and specialist responsibilities with people dealing with the media.
- 3.7.4. It is important to define and agree key contacts with the press and broadcasting media and establish a clear understanding of the most effective timings for information to be provided in order to reach necessary audiences and broadcast schedules.
- 3.7.5. Information on costs, salt usage, plant usage, manpower etc. will be calculated by the Network Resilience Team.
- 3.7.6. In addition to supplying information to the press it is important to inform key stakeholders (these including emergency services, public transport operators, motoring organisations, key local organisations and County Councillors).
- 3.7.7. Our Media Service, Customer Service Centre staff and the Winter and Emergency Duty Officer will utilise Twitter to engage with and disseminate treatment actions and issues to the travelling public via Smartphone technology.

3.8. Weather forecast service

3.8.1. Routine forecasts and updates will be issued by the Forecast Service Provider via their own web-based service and displayed via the Bureau Service Provider's online management software in the following format:

11:00 Forecast

- A summary 24 hour forecast for the County.
- Detailed forecast for each of the 43 Precautionary Salting Routes.

17:00 Evening Update

An update for the overnight period of each of the 43 Precautionary Salting Routes.

Amendments

- If significant changes take place, then the forecast is amended.
- 3.8.2. The Forecast Service Provider will amend the forecast at any time:
 - If there is a change from "no frost" forecast to a "frost" or when the road minimum is between plus and minus three degrees Celsius and there is a sustained difference between the forecast and actual graphical curve of two degrees Centigrade or more.
 - When there are significant changes to rainfall intensity and timing and road frost is expected or a significant change to snowfall is forecast.
- 3.8.3. As well as updating the Internet systems, the Forecast Service Provider will contact Network Resilience during working hours who will in turn contact Local Highways Teams (08:30 16:30), and the Winter and Emergency Duty Officer at all other times.
- 3.8.4. A 24-hour consultancy service is provided by the Forecast Service Provider, available to all staff.

Note: In the event of the internet systems not operating, the above forecasts will be emailed to Network Resilience Staff by the Forecast Service Provider.

3.9. Route based forecasting

3.9.1. In the past, the forecast provided to Lincolnshire was domain based, covering large geographical areas. This led to treatment instructions for whole areas, meaning that some roads may have been treated despite not actually reaching a temperature where a hazard could form.

- 3.9.2. Innovations in forecasting technology now allow the Forecast Service Provider to provide a "route based forecast", which is effectively an individual forecast for each of the 43 precautionary salting routes, each of which is divided into multiple sections.
- 3.9.3. The worst-case scenario for each of the routes is used for precautionary salting routes. If one section of the route is forecast to experience a hazard, the whole route will be treated.
- 3.9.4. Route-based forecasting allows for a much more efficient precautionary salting service, as on marginal nights (generally at the start and end of the winter season) many of the 43 routes will not need to be treated. This saves not only on salt, but on labour costs and maintenance of vehicles.
- 3.9.5. Route-based forecasting does not provide benefits in prolonged periods of very cold weather, as it is likely that all of the precautionary salting routes will have hazards forecast at some point overnight. The benefits are realised in mild winters, where traditionally the technology has not been available to avoid over-treatment.
- 3.9.6. In future, it is possible that further granularity in treatment of the network will become available through emerging technology. We attend various national groups and monitors best practice and will continue to trial new options as they become available, to deliver the most efficient service possible.

3.10. Treatment flowcharts

3.10.1. Decision making flowcharts have been produced, which should be utilised during the winter service decision making process. The flowcharts provide operational guidance, and professional judgement by competent decision makers should always be applied when coming up with treatments.

Dry or Damp Roads – Please see Appendix E.

Wet Roads – Please see Appendix F.

Snow Clearance – Please see Appendix G.

3.11. Cross boundary agreements

- 3.11.1. Cross boundary agreements have been developed following liaison and communication with neighbouring authorities.
- 3.11.2. Liaison takes place with other local authorities responsible for winter service on roads within and adjacent to the county regarding their treated routes and treatment decisions. Additionally, there is an exchange of treatment action instructions.

- 3.11.3. Any road treated by an adjoining authority would be treated in accordance with that authority's policies for operational purposes and not the local highway authority's policies.
- 3.11.4. The current cross boundary agreements with neighbouring authorities are as follows:
 - Cambridgeshire
 - Leicestershire
 - North Lincolnshire
 - North East Lincolnshire
 - Nottinghamshire
 - Peterborough
 - Rutland

Roads gritted by North Lincolnshire on behalf of Lincolnshire County Council:

- C227 from County Boundary to C228 High Street East in Scotter village.
- A159 from County Boundary to junction with C228 High Street East in Scotter village.
- B1211 from County Boundary to B1210 north for Brocklesby.
- B1210 from County Boundary to B1211 north for Brocklesby.
- B1400 from County Boundary south of Scallow Grove to County Boundary at Black Walk Nook.
- C221 from County Boundary to A159 junction in Scotter.

Roads gritted by Lincolnshire County Council on behalf of North Lincolnshire:

- A18 from County Boundary to junction with B1210.
- B1210 from County Boundary to junction with A18.
- A1084 from County Boundary to A18 roundabout in Brigg.
- B1434 from County Boundary to County Boundary.
- B1205 from County Boundary to County Boundary.

Roads gritted by Nottinghamshire on behalf of Lincolnshire County Council:

- A1133 length in Lincolnshire near Girton.
- A1133 from County Boundary to A57 at Newton-on-Trent.
- A57 from western junction with A1133 west to County Boundary.
- A631 from County Boundary over Gainsborough Bridge to A156.

Roads gritted by Lincolnshire County Council on behalf of Nottinghamshire:

- A17 from County Boundary west of Beckingham in Lincolnshire to the roundabout at the junction with C208 Beacon Hill Road and Stapleford Lane including the western side of the roundabout.
- C412 from County Boundary at Balderfield to B6326.
- Spalford Road from County Boundary through Spalford to A1133.
- In times of prolonged freezing:
 - C158 (C82) from Lincolnshire/Nottinghamshire boundary near North
 - Scarle to the A1133 at Besthorpe.
 - C163 (C128) from Lincolnshire/Nottinghamshire boundary near Swinderby to the A1133 at Collingham.
 - C123 (C44) from Lincolnshire/Nottinghamshire boundary near Stapleford to the A17 near Coddington.

Roads gritted by Peterborough CC on behalf of Lincolnshire County Council:

- B1081 from County Boundary to A43.
- B1443 from A43 junction east to County Boundary.
- A43 from junction with B1443 to County Boundary.
- New A16 from new roundabout at A16/A1073 junction, Crowland to County Boundary.
- Existing A1073 from new roundabout at A16/A1073 junction, Crowland to County Boundary.

Roads gritted by Lincolnshire County Council on behalf of Peterborough CC:

A15 from A16/B1525 roundabout across County Boundary to A15/B1524 roundabout.

B1524 from B1525 roundabout to A15 Maxey roundabout.

Roads gritted by Rutland on behalf of Lincolnshire County Council:

- A606 from County Boundary to the junction with B1081.
- B1081 from County Boundary to junction with A606.
- C432 from County Boundary to junction with C431 Station Road.

Roads gritted by Lincolnshire County Council on behalf of Rutland:

- B1176 from County Boundary to A6121 north of Ryhall.
- A6121 from County Boundary to County Boundary through Ryhall.

Roads gritted by Lincolnshire County Council on behalf of Cambridgeshire:

- Bythorne Bank from Chapel Gate at County Boundary to Cross Drove.
- B1166 from County Boundary at South Eau Bank crossing bridge to Marshall's Bank.

Roads gritted by Leicestershire on behalf of Lincolnshire County Council:

 C427 from County Boundary (north east of Normanton) to Long Bennington C418 Main Road.

Roads gritted by Lincolnshire County Council on behalf of Leicestershire:

- C440 from County Boundary to Harston village junction with Denton Lane.
- C492 from County Boundary to Harston village junction with Woolthorpe Lane.

Roads gritted by North East Lincolnshire on behalf of Lincolnshire County Council:

- A1173 from County Boundary to junction with A18.
- Hatcliffe Road from B1203 to County Boundary.
- C243 Stallingborough Road from South Street to County Boundary.

Roads gritted by Lincolnshire County Council on behalf of North East Lincolnshire:

- A46 from County Boundary going east to A46 roundabout.
- Old Main Road from A46 through Irby upon Humber to A46.

- A18 from County Boundary to C638 Whites Road.
- A16 from County Boundary to B1219 roundabout.
- A1031 from County Boundary to junction with B1219.

3.12. Public self-help guidance literature

- 3.12.1. Based on national guidance issued by the Department for Transport, Lincolnshire has produced two self-help documents. These are:
 - Clearing Snow off the Carriageway (Appendix H).
 - Clearing Snow from Footways (Appendix I).
- 3.12.2. These will continue to be distributed to the Parish and District Councils and the public via our website.

3.13. Use of rebated diesel oil (red diesel)

- 3.13.1. As of April 2022 the use of red diesel in a gritter is no longer permitted. Therefore, all gritters are to use normal white diesel and pay any duty accordingly on that fuel.
- 3.13.2. Agricultural vehicles are considered an excepted vehicle when undertaking gritting or snow ploughing activities for frost, snow or ice clearance on public roads and therefore are permitted to use red diesel.

3.14. Mutual aid and self-help arrangements with Parish and District Councils

- 3.14.1. As part of a cross cutting action to engage with all communities within the county concerning how all parties could work together in times of emergency and crisis the following actions will be undertaken.
- 3.14.2. Highways staff will engage with all District Councils concerning mutual aid in times of severe weather. A memorandum of understanding should be developed with individual District Councils to outline mutual aid arrangements.
- 3.14.3. Highways staff will engage with Town or Parish Councils and other Community Groups to encourage participation in a programme of self-help and mutual aid. The aim being to provide a framework within which willing, locally based volunteers clear snow within key areas of their community. In return for agreed participation, we undertake to provide limited amounts of additional salt and, or grit in "1 tonne sacks" at agreed locations. Those wishing to take part will need to agree to the following points:
 - Provide a contact point for the exchange of information.

- What are the priority footways that are intended to be cleared.
- Agree the quantity and location of additional salt supplies.
- Maintain overall responsibility for the Health and Safety of any volunteers.
- 3.14.4. Parish or Town Councils are encouraged to develop a snow and ice plan as part of their Community Emergency Plan.

Appendix A - Main villages in Lincolnshire

Main villages were defined in the County Structure Plan between 1981 and 1991 and updated on a later submission to the Secretary of State as the following villages:

Boston Borough

- Butterwick
- Kirton
- Old Leake
- Sutterton
- Swineshead

East Lindsey District

- Binbrook
- Burgh le Marsh
- Chapel St Leonards
- Grimoldby/Manby
- Holton le Clay
- Legbourne
- Mareham le Fen
- North Somercotes
- North Thoresby
- Sibsey
- Stickney
- Tetford
- Tetney
- Wainfleet
- Woodhall Spa
- Wragby

North Kesteven District

- Bassingham
- Billinghay
- Branston
- Eagle
- Heckington
- Heighington
- Helpringham
- Metheringham

- Navenby
- Ruskington
- Skellingthorpe
- Swinderby
- Waddington
- Washingborough

South Holland District

- Cowbit
- Deeping St Nicholas
- Donington
- The Droves (Gedney Hill, Holbeach Drove, Whaplode Drove, Shepeau Stow) *
- Gosberton
- Moulton
- Pinchbeck
- Weston
- Whaplode

South Kesteven District

- Ancaster
- Barrowby
- Baston
- Billingborough
- Caythorpe
- Claypole
- Colsterworth
- Corby Glen
- Great Gonerby
- Langtoft
- Long Bennington
- Morton
- Rippingale
- South Witham
- Thurlby

West Lindsey District

- Bardney
- Blyton
- Cherry Willingham
- Dunholme

- Ingham
- Keelby
- Nettleham
- North Kelsey
- Saxilby
- Scotter
- Sturton by Stow
- Sudbrooke
- Welton

These villages are considered as per section 2.1.1.

Appendix B – Network evaluation form

Reference No.

Score

Requested by	
Location	
Road name and number	
Distance (m)	
Average width of road	
Obstructions to gritting observations	
(speed retarders, access for plough etc)	

Assessment	Yes or No	Instruction
1. Is the road suitable for gritters (width, ability to exit/turn without reversing etc)?		If no - do not proceed
2. Is a reasonable alternative treated route available?		If yes - do not proceed
3. Is sufficient capacity available on relevant route?		If no - do not proceed

ltem	Points	Occ.	Road Speed	Total
Public Service Bus Route (daily)	20			
Service provided at least 5 days/week				
Public Service Bus Route (less than daily)	10			
Service provided at least 5 days/week				
School Bus Route -	20			
Contract route (16+ seater PCV Licence required)				
Injury Accident Record (last three years)	15			
Ice and snow related – 15 points per reported accident				
Health Centre on Route - GP Practice	15			
Railway / Bus Station on Route - 15 points awarded for each	15			
Bends	5		<= 30	
5 points each			31 - 50	
			51 >	
Junctions	1		< = 30	
1 point each			31 - 50	
			51 >	
Steep Gradient	10			
10 points if 1 or more gradients (>1 in 15 over 50m)				
Deep Drains or Water Course Adjacent to Road	10			
10 points / side (over 2m from C/Way level to bed level				
Ditches	5			
(5 points / side (within 1m of C/Way, less than 2m deep)				
Only 1 public service or school bus scores to be used. Road Speed:			Total	
up to 30mph = x1, 31mph to 50mph = x2, 51mph and above = x3			Points	

Total Points Score		Divided by Road Length		= Final Score	
--------------------	--	------------------------	--	---------------	--

Engineering Comments

Appendix C – Evaluation for additional grit bins

1. Initial Check

Requested by responsible body?

Yes	Continue to next question
No	Do not continue
Maintainable public high	way?
Yes	Continue to next question
No	Do not continue
Suitable location?	
Ves	Continue to Scoring

Do not continue

2. Scoring

Gradient

No

More than 1 in 25	50 points
Less than 1 in 25	0 points
Proximity of existing grit bins	
Less than 50 metres	-150 points
51 to 100 metres	-50 points
101 to 200 metres	0 points
More than 200 metres	20 points

Number of premises (only access route)

More than 50	20 points
20 to 50	10 points
Less than 20	0 points

Community facilities (less than 200 metres radius of proposed grit bin)

School	20 points
Post Office or local shop	10 points
Local shopping centre	20 points
Community or medical centre	10 points

Winter network (location of proposed grit bin)

Precautionary	-150 points
Severe	30 points
Not on winter network	0 points

Number of refills within the last 12 months

0	-10 points
1	0 points
2 or more	5 points

Total Score

Pass	50 or more points
Fail	Less than 50 points

Appendix D – Midlands service improvement group – winter service for footways and cycleways

Category	Overnight Frost Conditions*	Daytime Frost Conditions**	Extended Ice Conditions***	Snow Events
1a	No treatment	Precautionary treatment	Monitor and further treatment as required when resources permit. Treatment only during normal working hours.	Snow removal will commence when resources come available from higher priority treatments. Endeavours will be made to complete clearance within 12 hours of cessation of snowfall, subject to availability of resources. Treatment only during normal working hours.
1 Page 57	No treatment	No treatment	Monitor and treatment as required when resources permit. Treatment only during normal working hours.	Snow removal will commence when resources come available from higher priority treatments. Endeavours will be made to commence clearance within 24 hours of cessation of snowfall, subject to availability of resources. Treatment only during normal working hours.
2	No treatment	No treatment	Monitor and treatment as required when resources permit. Treatment only during normal working hours.	Snow removal will commence when resources come available from higher priority treatments. Endeavours will be made to commence clearance within 48 hours of cessation of snowfall, subject to availability of resources. Treatment only during normal working hours.

Category	Overnight Frost Conditions*	Daytime Frost Conditions**	Extended Ice Conditions***	Snow Events
3 and 4	No treatment	No treatment	Reactive treatment not normally undertaken other than in response to specific circumstances. Treatment only during normal working hours.	Snow removal will commence when resources come available from higher priority treatments. Endeavours will be made to commence clearance within 5 days of cessation of snowfall, subject to availability of resources. Treatment only during normal working hours.

Note: At all times priority will be given to the Precautionary Salting Network. Combined footway and cycleways are treated in accordance with footway hierarchy. Segregated cycleways are not treated.

^{*} Overnight frost conditions - Overnight forecast temperatures below zero but not extending beyond 8am

^{**} Daytime frost conditions - Overnight forecast temperatures below zero extending beyond 8am

^{***} Extended Ice Conditions - Persistent widespread ice (rather than frost) for more than 18 hours in a 24-hour period and a forecast not to rise above zero for a further 18 hours in the next 24 hours.

Appendix E Chart 1 - Precautionary Salting for Dry or Damp Road Conditions Flowchart -Version 1 **Network Resilience** Lincolnshire County Council, Highway Network Management **April 2023** No Yes Is snow forecast? Follow chart 3 -No **Are Road Surface** Are roads very wet **Snow clearance** following rain or runoff? Temperatures forecast to flowchart. No <+0.5° C? Yes Yes Are roads forecast to be Follow chart 2 damp due to **Precautionary Salting** precipitation or **Monitor** flowchart for wet road condensation, taking conditions into account the No dewpoint and/or Hoar Frost forecast. Yes Is sufficient residual salt Page 59 likely to be present? Yes (Option to delay decision or reduce treatment level. If necessary consider a patrol.) No No Are RSTs forecast <-2° C? Yes Yes Yes Are RSTs forecast <-5° Are RSTs forecast <-10° Treatment option C for C? C? two runs (2 x 17 gram No No runs (treated) and then monitor and consider 3rd run as option C. **Treatment option B Treatment option A Treatment option C Treated Treated Treated** salt - All salt - All salt - All routes routes routes 7 17g/m²Mol 12g/m²Mol g/m2Molas asses asses ses

Notes:

General

- The treatment time should allow for all routes to be treated prior to ice forming - subject to residual salt
- 2. The latest callout time in the morning to ensure completion of precautionary route network prior to the rush hour is 0300hrs.
- Runs may be times to avoid rush hour traffic. This
 is to prevent low speeds and stop/start
 manoeuvres where spread patterns become
 ineffective.
- All routes to be completed after rainfall. If rainfall
 occurs during the run the treatment should be
 suspended and recommenced once rain ceases. If
 rainfall is heavy reconsider treating the whole route
 again.
- Decision Matrix based on guidance contained within Winter Service section of Well-Managed Highways Code of Practice for Highway Maintenance Management Winter Section and the NWSRG guides Treatments for Ice and Snow.

Treatment Times

 For situations of high or medium confidence forecast of a morning Hoar Frost, treatments can be made so that gritting runs are completed by 2330hrs the previous evening.

Treatment Rates

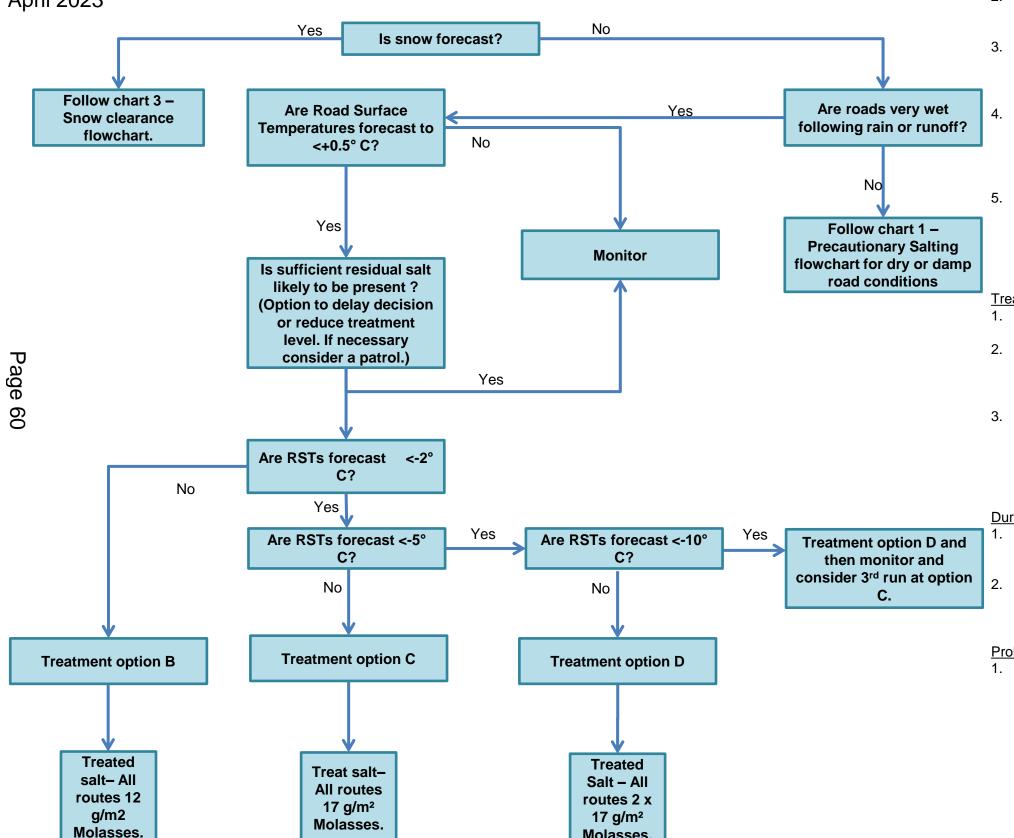
- . Dry salting Note MAXIMUM spread rate 20g/m².
- Treatment rates at specific depots may be altered to take account of moisture content of salt following laboratory tests. Maximum allowable moisture content is 4%.
- Road temperatures for decision making to be based on domain text minimums and Route Based Forecast minimums. This is to take into account known frost hollows on the treated network.

Duration of Treatment

- 1. If period below freezing to exceed 8 hours then Grip Factor to be monitored and if necessary a second run to be considered.
 - Second runs carried out within 6 hours of initial treatment may be at 50% of the initial spread rates if no runoff water or ice present.

Prolonged Spells of Ice/Snow

 Consideration to be given to running routes in reverse during prolonged periods of continuous operations. Appendix F Chart 2 - Precautionary Salting for Wet Road Conditions Flowchart–Version 1 **Network Resilience** Lincolnshire County Council, Highway Network Management **April 2023**



Molasses.

Notes:

General

- 1. The treatment time should allow for all routes to be treated prior to ice forming - subject to residual salt.
- 2. The latest callout time in the morning to ensure completion of precautionary route network prior to the rush hour is 0300hrs.
- Runs may be times to avoid rush hour traffic. This is to prevent low speeds and stop/start manoeuvres where spread patterns become ineffective.
- All routes to be completed after rainfall. If rainfall occurs during the run the treatment should be suspended and recommenced once rain ceases. If rainfall is heavy reconsider treating the whole route again.
- Decision Matrix based on guidance contained within Winter Service section of Well-Managed Highways Code of Practice for Highway Maintenance Management and the NWSRG guides Treatments for Ice and Snow

Treatment Rates

- 1. Dry salting Note MAXIMUM spread rate
- 2. Treatment rates at specific depots may be altered to take account of moisture content of salt following laboratory tests. Maximum allowable moisture content is 4%.
- 3. Road temperatures for decision making to be based on domain text minimums and Route Based Forecast minimums. This is to take into account known frost hollows on the treated network.

Duration of Treatment

- If period below freezing to exceed 8 hours then Grip Factor to be monitored and if necessary a second run o be considered.
- Second runs carried out within 6 hours of initial treatment may be at 50% of the initial spread rates if no runoff water or ice present.

Prolonged Spells of Ice/Snow

1. Consideration to be given to running routes in reverse during prolonged periods of continuous operations.

Appendix G Chart 3 - Snow Clearance Flowchart-Version 1 **Network Resilience** Lincolnshire County Council, Highway Network Management May 2020 No Is snow forecast? Yes **Follow** Yes No Has snow fallen? precautionary salting flowchart. Two runs of Was forecast of Yes 20g/m² prior to snow greater than 50mm? snowfall **Consider fitting** No snowploughs. Page 6 If snowfall on Yes ground greater Fit snowploughs. than 50mm? No **Precautionary** Salt network at 20g/m² using a 50/50 salt/grit salt at 20g/m² dry. mixture.

No

Has snow stopped and

carriageway network returned to black?

Yes

Notes:

- The treatment time should allow for all routes to be treated prior to ice forming – subject to residual salt.
- 2. The latest callout time in the morning to ensure completion of precautionary route network prior to the rush hour is 0300hrs.
- Runs may be times to avoid rush hour traffic. This is to prevent low speeds and stop/start manoeuvres where spread patterns become ineffective.
- 4. If treatment is completed before 2200hrs and the forecast is for RST's -2 degrees Celsius or less, with moisture/hoar frost present and forecast is still below freezing for a further 10 hours or more, consider re-treatment to complete runs by 0700hrs.
- Dry salting If brine is not available then add 5g/m² to the above figures and dry salt. Note MAXIMUM spread rate 20 g/m².
- Treatment rates at specific Depots may be altered to take account of moisture content of salt following laboratory tests. Maximum allowable moisture content is 4%.
- All routes to be completed after rainfall. If rain occurs during run the treatment should be suspended and recommenced once rain ceases. If rainfall is heavy then reconsider treating whole route again.
- 8. Decision Matrix based on research carried out by TRL for Highways Agency and the NWSRG as well as guidance contained within Well-Managed Highways Code of Practice for Highway Maintenance Management.

Appendix H - Self-help tips

Clearing Snow off the Carriageway

- Do use purpose built snowploughs if available.
- Do skim the top of the snow off with a JCB/mechanical bucket to leave an inch of snow so you do not damage the road surface, remove "cat's eyes" or come into contact with ironwork.
- Do not scrape the road surface with a JCB/mechanical bucket.
- Do report any damage caused or found.
- Do operate with dipped beam headlights at all times.
- Do operate flashing/rotating amber beacons (where fitted) at all times.
- Do place the snow on the verge or grassed areas.
- Do not obstruct accesses or footpaths with the snow.
- Do keep in regular contact (minimum hourly) with operational base.

Vehicle operators and drivers are to have available and use:

- reflective jacket
- emergency food and drink
- mobile telephone or radio system
- wear stout footwear
- wear snow and ice grippers when walking outside of vehicle

Appendix I - Self-help tips

Clearing Snow from Footways

- Do work from the footway at all times working towards oncoming traffic wherever possible.
- Do not lift too much snow or ice at one time. Compacted snow can be very heavy.
- Do not use hot water to melt snow or ice it may refreeze to form "black ice".
- Do place snow at the edges of footways next to the road. This helps to form a barrier between cars and pedestrians.
- Do put sand or ash down on cleared areas as it will give grip to walkers.
- Do use grit/salt from grit bins sparingly.
- Do not use grit/salt from highways grit bins on private property this is theft.
- You do not need to use a lot of salt a teaspoon of salt per square metre will defrost ice patches.
- Do not work in blizzard conditions.

When working outside:

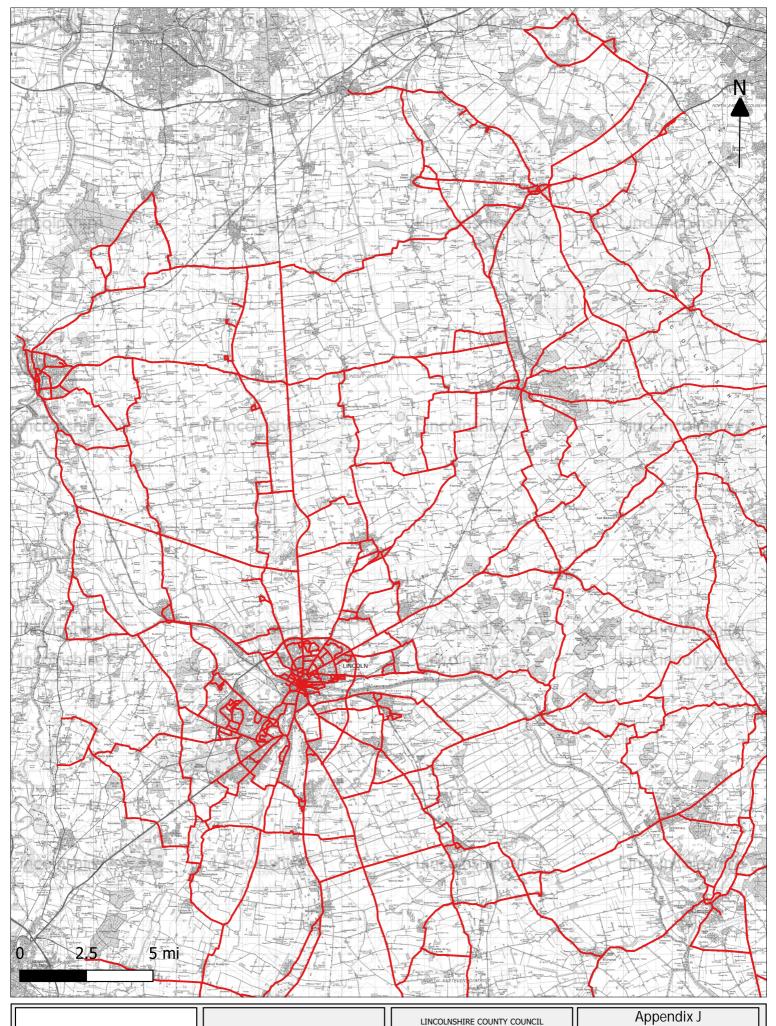
- wrap up warm
- wear a reflective coat if available
- wear stout footwear
- wear snow and ice grippers when walking, especially when pushing snow
- beware of hypothermia and wind chill effects

There is no law stopping you from clearing snow and ice on the pavement outside your property, pathways to your property or public spaces. This includes both public carriageways and footways.

If an accident did happen, it is unlikely you would be sued as long as you:

- are careful
- use common sense to make sure that you do not make the pavement or pathway clearly more dangerous than before

People using areas affected by snow and ice have a responsibility to be careful themselves.





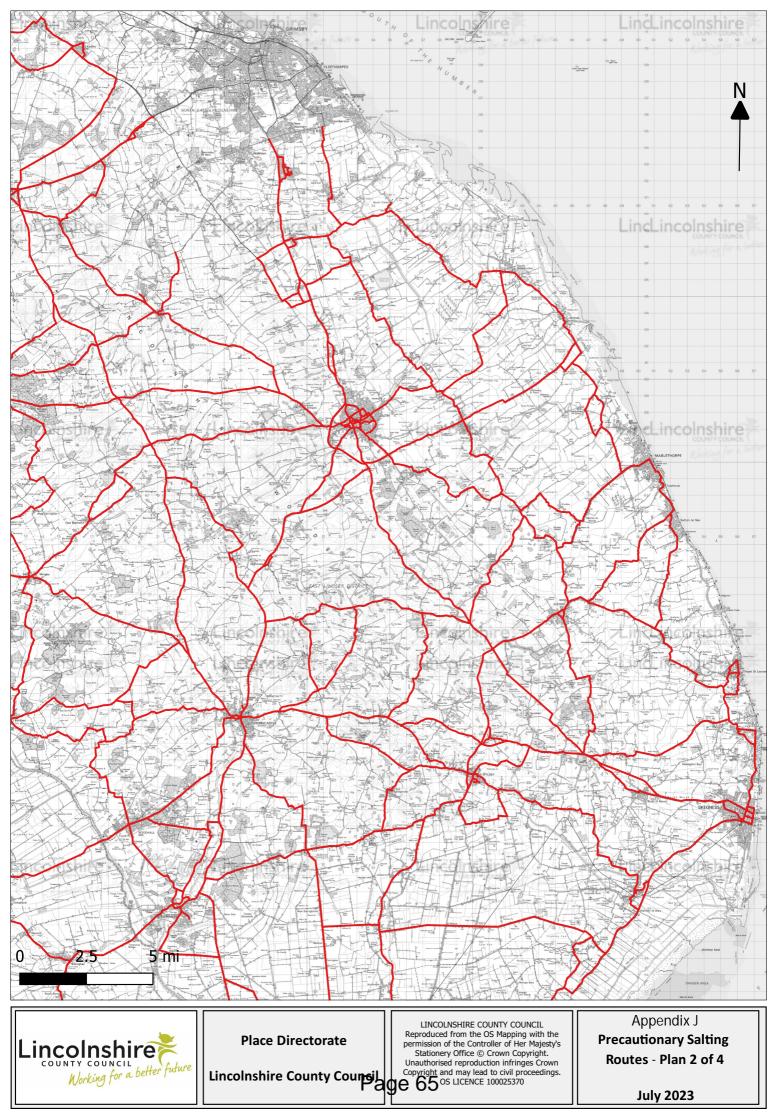
Place Directorate

Lincolnshire County Council

LINCOLNSHIRE COUNTY COUNCIL
Reproduced from the OS Mapping with the
permission of the Controller of Her Majesty's
Stationery Office © Crown Copyright.
Unauthorised reproduction infringes Crown
Copyright and may lead to civil proceedings.

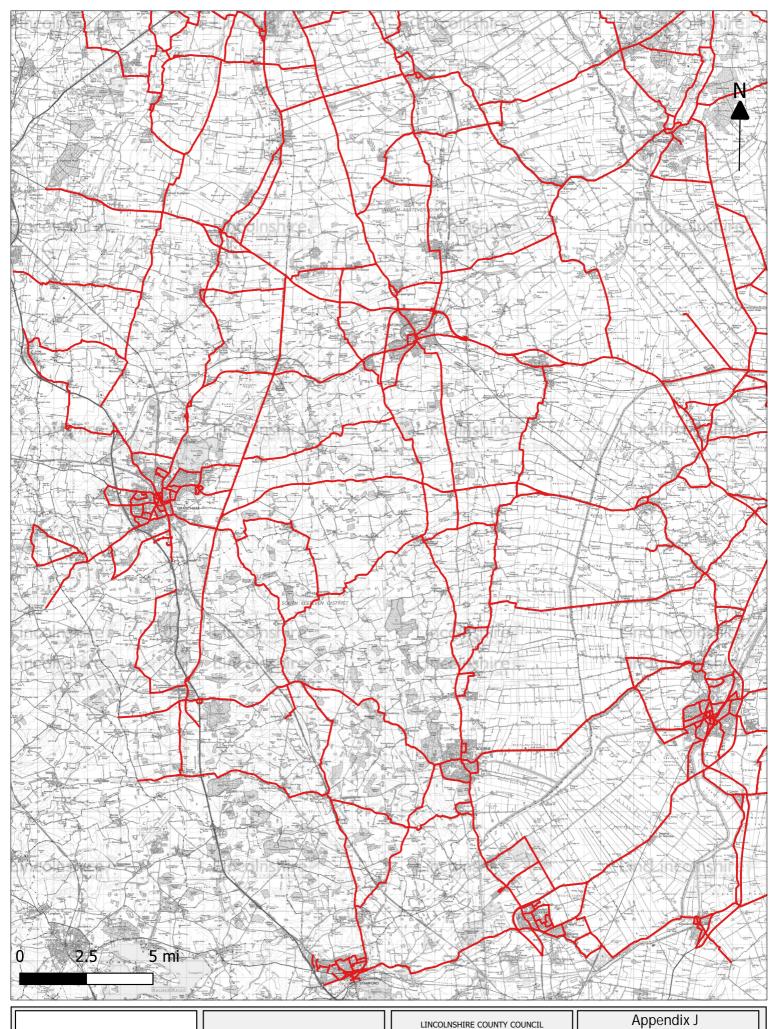
OS LICENCE 100025370

Appendix J
Precautionary Salting
Routes - Plan 1 of 4





Precautionary Salting Routes - Plan 2 of 4





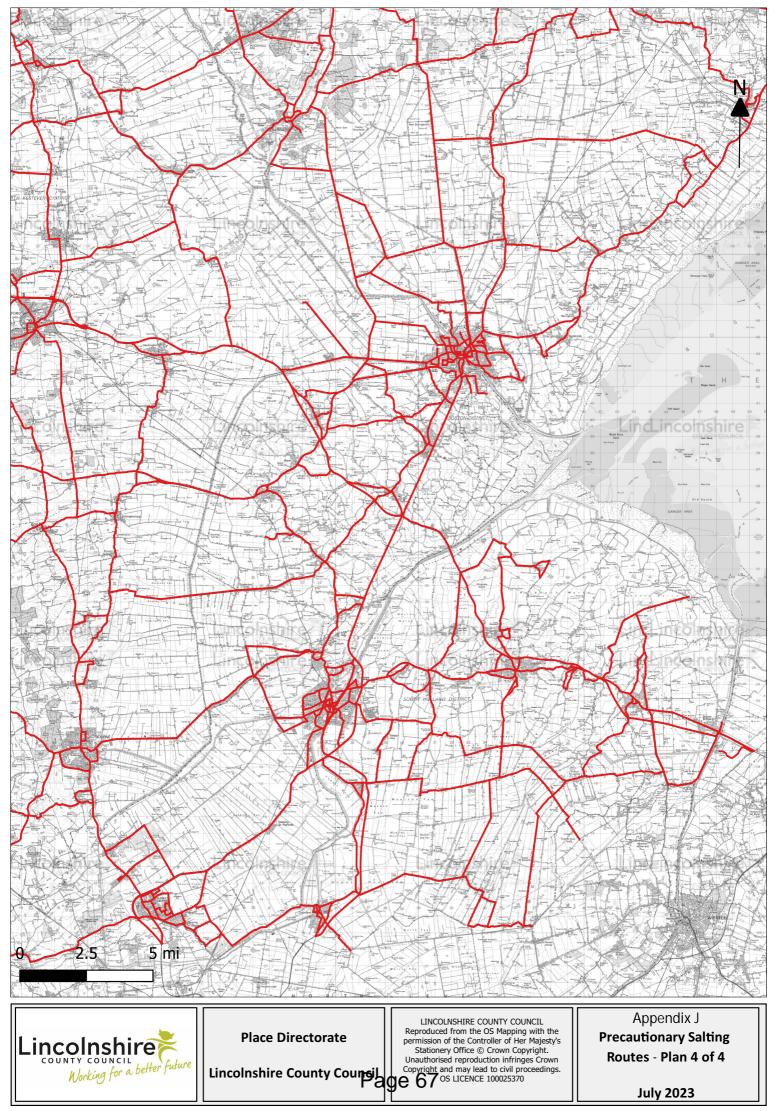
Place Directorate

Lincolnshire County Council

LINCOLNSHIRE COUNTY COUNCIL
Reproduced from the OS Mapping with the
permission of the Controller of Her Majesty's
Stationery Office © Crown Copyright.
Unauthorised reproduction infringes Crown
Copyright and may lead to civil proceedings.

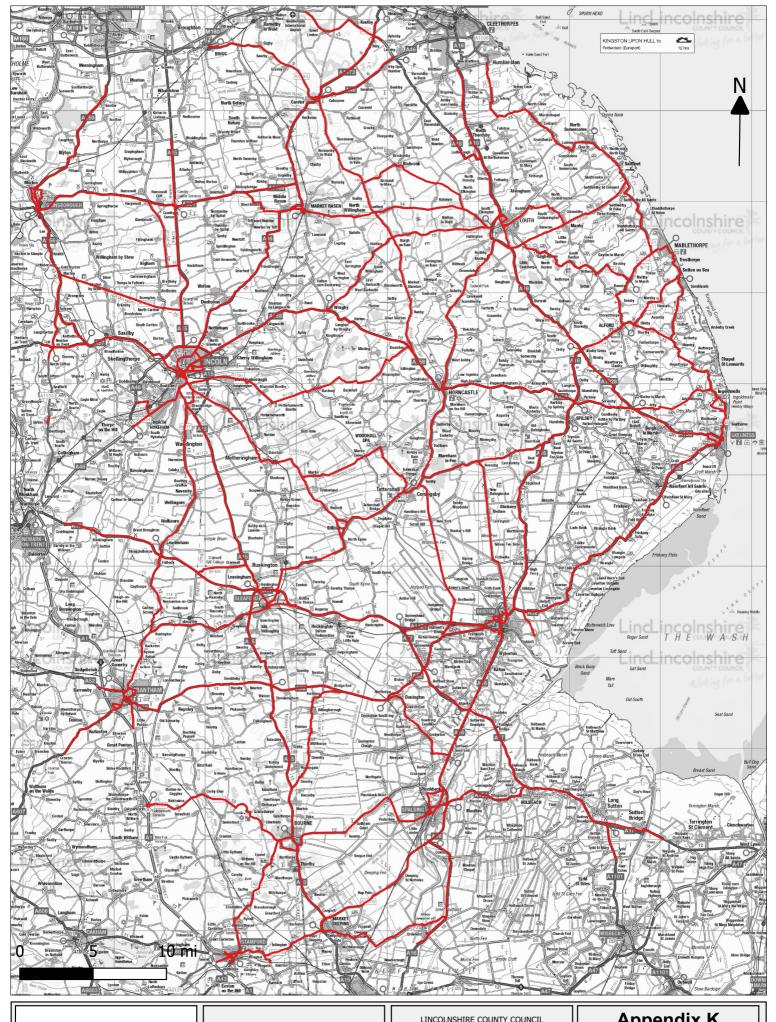
OS LICENCE 100025370

Precautionary Salting
Routes - Plan 3 of 4





Precautionary Salting Routes - Plan 4 of 4





Place Directorate

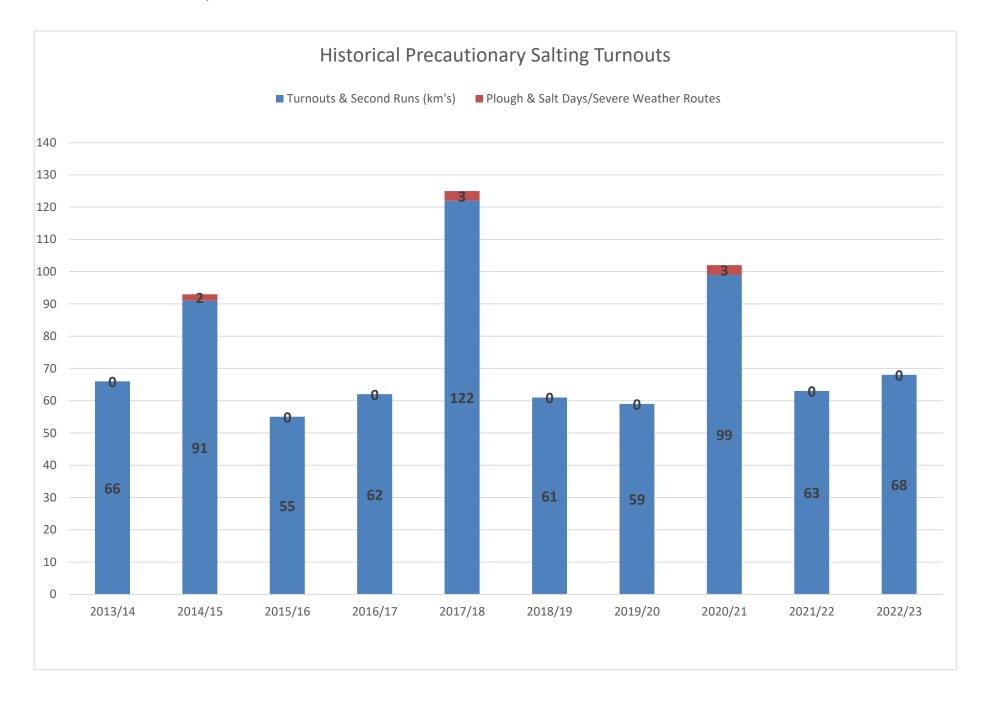
Lincolnshire County Council Page

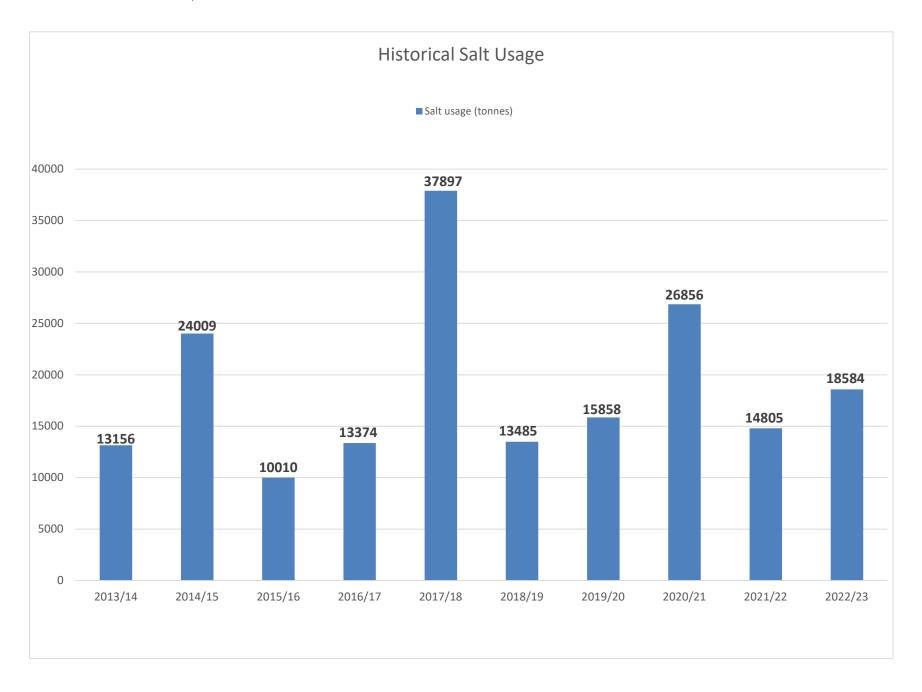
LINCOLNSHIRE COUNTY COUNCIL
Reproduced from the OS Mapping with the
permission of the Controller of Her Majesty's
Stationery Office © Crown Copyright.
Unauthorised reproduction infringes Crown
Copyright and may lead to civil proceedings.

OS LICENCE 100025370

Appendix K Resilient Network

Winter Service Statistics 2022/23 Appendix B





Equality Impact Analysis to enable informed decisions

The purpose of this document is to:-

- I. help decision makers fulfil their duties under the Equality Act 2010 and
- II. for you to evidence the positive and adverse impacts of the proposed change on people with protected characteristics and ways to mitigate or eliminate any adverse impacts.

Using this form

This form must be updated and reviewed as your evidence on a proposal for a project/service change/policy/commissioning of a service or decommissioning of a service evolves taking into account any consultation feedback, significant changes to the proposals and data to support impacts of proposed changes. The key findings of the most up to date version of the Equality Impact Analysis must be explained in the report to the decision maker and the Equality Impact Analysis must be attached to the decision making report.

Please make sure you read the information below so that you understand what is required under the Equality Act 2010

Equality Act 2010

The Equality Act 2010 applies to both our workforce and our customers. Under the Equality Act 2010, decision makers are under a personal duty, to have due (that is proportionate) regard to the need to protect and promote the interests of persons with protected characteristics.

Protected characteristics

The protected characteristics under the Act are: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex; sexual orientation.

Section 149 of the Equality Act 2010

Section 149 requires a public authority to have due regard to the need to:

- Eliminate discrimination, harassment, victimisation, and any other conduct that is prohibited by/or under the Act
- Advance equality of opportunity between persons who share relevant protected characteristics and persons who do not share those characteristics
- Foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The purpose of Section 149 is to get decision makers to consider the impact their decisions may or will have on those with protected characteristics and by evidencing the impacts on people with protected characteristics decision makers should be able to demonstrate 'due regard'.

Decision makers duty under the Act

Having had careful regard to the Equality Impact Analysis, and also the consultation responses, decision makers are under a personal duty to have due regard to the need to protect and promote the interests of persons with protected characteristics (see above) and to:-

- (i) consider and analyse how the decision is likely to affect those with protected characteristics, in practical terms,
- (ii) remove any unlawful discrimination, harassment, victimisation and other prohibited conduct,
- (iii) consider whether practical steps should be taken to mitigate or avoid any adverse consequences that the decision is likely to have, for persons with protected characteristics and, indeed, to consider whether the decision should not be taken at all, in the interests of persons with protected characteristics,
- (iv) consider whether steps should be taken to advance equality, foster good relations and generally promote the interests of persons with protected characteristics, either by varying the recommended decision or by taking some other decision.

Conducting an Impact Analysis

The Equality Impact Analysis is a process to identify the impact or likely impact a project, proposed service change, commissioning, decommissioning or policy will have on people with protected characteristics listed above. It should be considered at the beginning of the decision making process.

The Lead Officer responsibility

This is the person writing the report for the decision maker. It is the responsibility of the Lead Officer to make sure that the Equality Impact Analysis is robust and proportionate to the decision being taken.

Summary of findings

You must provide a clear and concise summary of the key findings of this Equality Impact Analysis in the decision making report and attach this Equality Impact Analysis to the report.

Impact - definition

An impact is an intentional or unintentional lasting consequence or significant change to people's lives brought about by an action or series of actions.

How much detail to include?

The Equality Impact Analysis should be proportionate to the impact of proposed change. In deciding this asking simple questions "Who might be affected by this decision?" "Which protected characteristics might be affected?" and "How might they be affected?" will help you consider the extent to which you already have evidence, information and data, and where there are gaps that you will need to explore. Ensure the source and date of any existing data is referenced.

You must consider both obvious and any less obvious impacts. Engaging with people with the protected characteristics will help you to identify less obvious impacts as these groups share their perspectives with you.

A given proposal may have a positive impact on one or more protected characteristics and have an adverse impact on others. You must capture these differences in this form to help decision makers to arrive at a view as to where the balance of advantage or disadvantage lies. If an adverse impact is unavoidable then it must be clearly justified and recorded as such, with an explanation as to why no steps can be taken to avoid the impact. Consequences must be included.

Proposals for more than one option If more than one option is being proposed you must ensure that the Equality Impact Analysis covers all options. Depending on the circumstances, it may be more appropriate to complete an Equality Impact Analysis for each option.

The information you provide in this form must be sufficient to allow the decision maker to fulfil their role as above. You must include the latest version of the Equality Impact Analysis with the report to the decision maker. Please be aware that the information in this form must be able to stand up to legal challenge.

Background Information

Title of the policy / project / service being considered	Winter Service Plan 2023	Person / people completing analysis	Clair Dixon
Service Area	Highways Services	Lead Officer	Clair Dixon
Who is the decision maker?	Cllr Richard Davies	How was the Equality Impact Analysis undertaken?	Discussion between officers involved using guidance on Equality & Diversity.
Date of meeting when decision will be made	17/07/2023	Version control	V1.0
Is this proposed change to an existing policy/service/project or is it new?	Existing policy/service/project	LCC directly delivered, commissioned, re-commissioned or de-commissioned?	Commissioned
Describe the proposed change	The Winter Service Plan has been reviewed	d and updated and there are no policy or op	erational changes

Evidencing the impacts

In this section you will explain the difference that proposed changes are likely to make on people with protected characteristics. To help you do this first consider the impacts the proposed changes may have on people without protected characteristics before then considering the impacts the proposed changes may have on people with protected characteristics.

You must evidence here who will benefit and how they will benefit. If there are no benefits that you can identify please state 'No perceived benefit' under the relevant protected characteristic. You can add sub categories under the protected characteristics to make clear the impacts. For example under Age you may have considered the impact on 0-5 year olds or people aged 65 and over, under Race you may have considered Eastern European migrants, under Sex you may have considered specific impacts on men.

Data to support impacts of proposed changes

When considering the equality impact of a decision it is important to know who the people are that will be affected by any change.

Population data and the Joint Strategic Needs Assessment

The Lincolnshire Research Observatory (LRO) holds a range of population data by the protected characteristics. This can help put a decision into context. Visit the LRO website and its population theme page by following this link: http://www.research-lincs.org.uk If you cannot find what you are looking for, or need more information, please contact the LRO team. You will also find information about the Joint Strategic Needs Assessment on the LRO website.

Workforce profiles

You can obtain information by many of the protected characteristics for the Council's workforce and comparisons with the labour market on the Council's website. As of 1st April 2015, managers can obtain workforce profile data by the protected characteristics for their specific areas using Agresso.

Positive impacts

The proposed change may have the following positive impacts on persons with protected characteristics – If no positive impact, please state *'no positive impact'*.

Age	Positive impact by gritting the routes that enable accessibility to schools, all main hospitals, medical centres and care homes.
Disability	Positive impact by gritting the routes that enable accessibility to schools, all main hospitals, medical centres and care homes.
Gender reassignment	No positive impact.
Marriage and civil partnership	No positive impact.
Pregnancy and maternity	Positive impact by gritting the routes that enable accessibility to all main hospitals.
Race	No positive impact.
Religion or belief	No positive impact.

Adverse/negative impacts

You must evidence how people with protected characteristics will be adversely impacted and any proposed mitigation to reduce or eliminate adverse impacts. An adverse impact causes disadvantage or exclusion. If such an impact is identified please state how, as far as possible, it is justified; eliminated; minimised or counter balanced by other measures.

If there are no adverse impacts that you can identify please state 'No perceived adverse impact' under the relevant protected characteristic.

Negative impacts of the proposed change and practical steps to mitigate or avoid any adverse consequences on people with protected characteristics are detailed below. If you have not identified any mitigating action to reduce an adverse impact please state 'No mitigating action identified'.

Age		No perceived adverse impact of the Plan itself. The existence of ice and snow can impact disproportionately on older people as they may be less likely to venture out in such conditions. The Plan describes in general terms the standards, policy and objectives of winter service which mitigates as much as possible this adverse impact between those with this protected characteristic and people who do not share that protected characteristic.
Disabilit	ity	No perceived adverse impact of the Plan itself. The existence of ice and snow can impact disproportionately on people with a disability as they may be less likely to venture out in such conditions. The Plan describes in general terms the standards, policy and objectives of winter service which mitigates as much as possible this adverse impact between those with this protected characteristic and people who do not share that protected characteristic.
Gender	reassignment	No perceived adverse impact. The Plan describes in general terms the standards, policy and objectives of winter service. Its impacts are neutral between those with this protected characteristic and people who do not share that protected characteristic.
Marriago	e and civil partnership	No perceived adverse impact. The Plan describes in general terms the standards, policy and objectives of winter service. Its impacts are neutral between those with this protected characteristic and people who do not share that protected characteristic.
Pregnar	ncy and maternity	No perceived adverse impact of the Plan itself. The existence of ice and snow can impact disproportionately on pregnant women or mothers of small children as they may be less likely to venture out in such conditions. The Plan describes in general terms the standards, policy and objectives of winter service which mitigates as much as possible this adverse impact between those with this protected characteristic and people who do not share that protected characteristic.

Race	No perceived adverse impact. The Plan describes in general terms the standards, policy and objectives of winter service. Its impacts are neutral between those with protected characteristic and people who do not share that protected characteristic.
Religion or belief	No perceived adverse impact. The Plan describes in general terms the standards, policy and objectives of winter service. Its impacts are neutral between those with protected characteristic and people who do not share that protected characteristic.
Sex	No perceived adverse impact. The Plan describes in general terms the standards, policy and objectives of winter service. Its impacts are neutral between those with protected characteristic and people who do not share that protected characteristic.
Sexual orientation	No perceived adverse impact. The Plan describes in general terms the standards, policy and objectives of winter service. Its impacts are neutral between those with protected characteristic and people who do not share that protected characteristic.

If you have identified negative impacts for other groups not specifically covered by the protected characteristics under the Equality Act 2010 you can include them here if it will help the decision maker to make an informed decision.

Stakeholders

Stake holders are people or groups who may be directly affected (primary stakeholders) and indirectly affected (secondary stakeholders)

You must evidence here who you involved in gathering your evidence about benefits, adverse impacts and practical steps to mitigate or avoid any adverse consequences. You must be confident that any engagement was meaningful. The Community engagement team can help you to do this and you can contact them at consultation@lincolnshire.gov.uk

State clearly what (if any) consultation or engagement activity took place by stating who you involved when compiling this EIA under the protected characteristics. Include organisations you invited and organisations who attended, the date(s) they were involved and method of involvement i.e. Equality Impact Analysis workshop/email/telephone conversation/meeting/consultation. State clearly the objectives of the EIA consultation and findings from the EIA consultation under each of the protected characteristics. If you have not covered any of the protected characteristics please state the reasons why they were not consulted/engaged.

Objective(s) of the EIA consultation/engagement activity

No consultation or engagement activity undertaken.

Who was involved in the EIA consultation/engagement activity? Detail any findings identified by the protected characteristic

	Age	As detailed above. None identified.
	Disability	As detailed above. None identified.
	Gender reassignment	As detailed above. None identified.
82	Marriage and civil partnership	As detailed above. None identified.
	Pregnancy and maternity	As detailed above. None identified.
	Race	As detailed above. None identified.
	Religion or belief	As detailed above. None identified.

Sex	As detailed above. None identified.
Sexual orientation	As detailed above. None identified.
Are you confident that everyone who should have been involved in producing this version of the Equality Impact Analysis has been involved in a meaningful way? The purpose is to make sure you have got the perspective of all the protected characteristics.	Yes.
Once the changes have been implemented how will you undertake evaluation of the benefits and how effective the actions to reduce adverse impacts have been?	

Further Details

Are you handling personal data?	No
	If yes, please give details.

Actions required
Include any actions identified in this
analysis for on-going monitoring of Lead officer Action Regular Review Clair Dixon Continual Monitoring. impacts. Signed off by Date Click here to enter a date.

Timescale