

Briefing to Scrutiny Committee

Winter

12th November 2021

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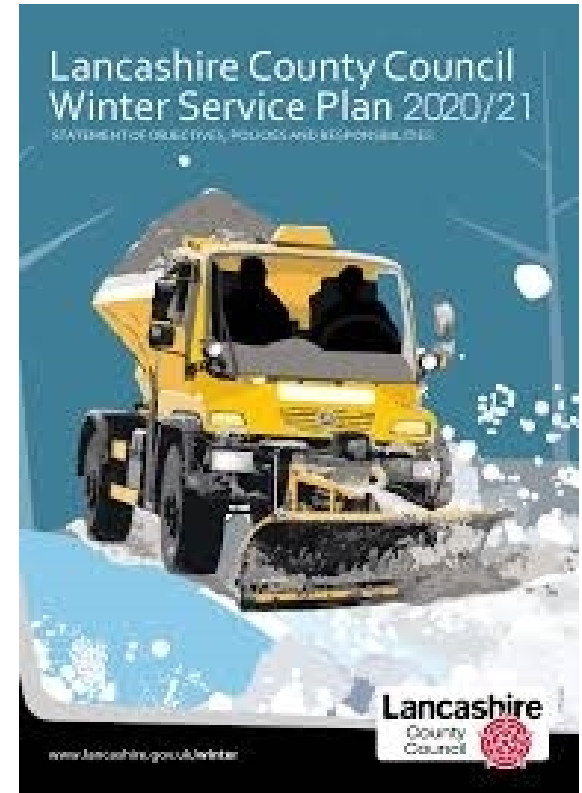
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Legal Obligations

- Section 41 of the Highways Act 1980 as amended by Section 111 of the Railways and Transport Safety Act 2003. The first part of Section 41 now reads: “(1) The authority who are for the time being the highway authority for a highway maintainable at the public expense are under a duty, subject to subsections (2) and (4) below, to maintain the highway. (1A) In particular, a highway authority are under a duty to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice.”
- Part 2 of the Traffic Management Act 2004 - Network Management by Local Traffic Authorities - places a network management duty on all local traffic authorities in England, and requires such authorities to do all that is reasonably practicable to manage the network effectively to keep traffic moving. meeting the duty, authorities should establish contingency plans for dealing promptly and effectively with unplanned events, of which unforeseen weather conditions are an example, as far as is reasonably practicable

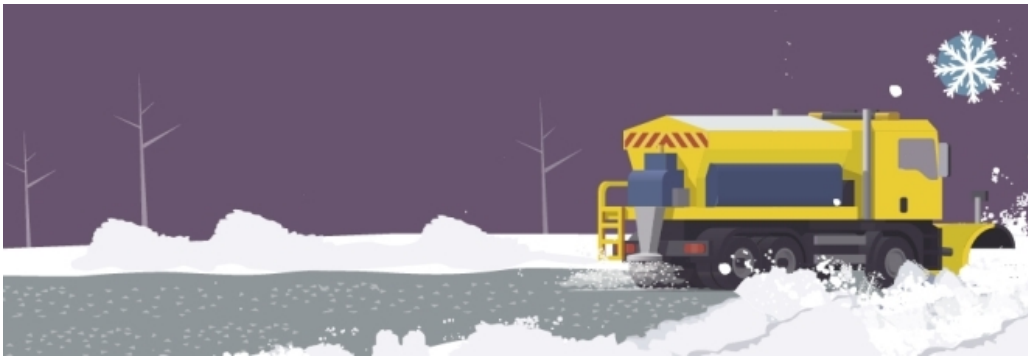
Winter Service Objectives

- Improve access into areas of economic growth and regeneration
- Provide better access to education and employment
- Improve people's quality of life and wellbeing
- Improve the safety of our streets for our most vulnerable residents
- Provide safe, reliable, convenient and affordable transport alternatives to the car
- Maintain our assets
- Reduce carbon emissions and its effects



Winter duration

Winter Period extends from Mid-October to Mid-April however, the actual end of the season is determined by forecast information and will be extended when it is indicated that winter conditions are likely to persist beyond Mid-April.



The Core Winter Period covers December, January and February, but recognising that severe winter weather can occur earlier or later, particularly in Pennine Lancashire.

Salt supply and stocks

- 7 Operational salt stores - Mix of domes, barns and a tunnel
- 4 Strategic stores - Outdoors - sheeted

Treated Salt - **SAFECOAT**

- Reduces spread rates
- Increases route efficiency
- Evidence suggests it sticks around longer
- Less corrosive than normal salt



Minimum salt stock

The county council will aim to maintain six days continuous minimum resilience based on four treatments of the Priority Road Network per day at an average spread rate of 20g/m²



Treatment network

- In an ideal world our gritters would treat every road in Lancashire but in reality this is not possible due to cost and resources. Instead, we have identified the priority road network that helps keep Lancashire moving.
- The priority roads for gritting and snow clearing include:
- Non-trunk Motorways and 'A' roads which are the main routes across Lancashire
- 'B' roads which are routes in and out of towns; roads which lead to hospitals, emergency service stations, main employment centres, and important public transport routes
- Single routes into villages.
- We have also identified the second most important roads which we will treat during periods of continuous ice and snow, but only during daylight hours and after the higher priority roads have been cleared.

Fleet

- The county council's front line fleet comprises 45 No dedicated gritters, one for each Priority Gritting Route, with capacities of six and nine cubic metres operating from seven depots across the county. 9 new gritters for this season.



- All front line gritters are fitted with GPS tracking devices to enable the plotting of a gritters position against time. Other data collected includes whether the gritter is salting and if so at what rate and width. Each gritter is paired with a dedicated snowplough for use in times of snow.



When and how frequently we grit



- During the winter months – October to April – we have up to 150 drivers on standby for a 24/7 response. We can mobilise up to 58 gritters and drivers at anytime during the winter. However, it can take our gritters up to four hours to grit one route and even longer in severe weather conditions. This means sometimes we can't grit as often as we would like.



- In severe weather conditions, we rotate our drivers so we can keep the gritters on the road 24/7 if needs be.

How we decide when to grit

When low temperatures and icy conditions are forecast we grit the roads as a precaution before the frost forms, usually during the evening or early hours of the morning. Please remember weather forecasts are only a guide and our local knowledge and expertise is vital in deciding what to do.

It can take our gritters up to four hours to grit a route and therefore, it will take this length of time before some roads are treated.

Despite our efforts, winter weather can still make the roads treacherous so never assume a road has been gritted and always drive with extra care.

Policy WS 8				
Decision Matrix				
Road Surface Temperature	Precipitation	Predicted Road Conditions		
		Wet	Wet Patches	Dry
Expected to fall below 0.5°C	No rain No hoar frost No fog	Salt before formation of ice / hoar frost	Salt before formation of ice (see Note a)	No action likely, monitor weather and carry out inspections as necessary (see Note a)
	Expected hoar frost Expected fog	Salt before formation of ice/hoar frost (see Note b)		
	Expected rain Expected BEFORE freezing	Salt after rain stops (see Note c)		
	Expected rain DURING freezing	Salt before formation of ice, as required during rain and again after rain stops, carrying out inspections as necessary (see Note d)		
	Possible rain Possible hoar frost Possible fog	Salt before formation of ice/hoar frost	Monitor weather conditions and carry out inspections as necessary	
	Expected snow	Salt before snowfall		
General Notes				
1) The timing of precautionary treatments should be such that completion is prior to the forecast time of frost.				
2) The decision to undertake precautionary treatments should be adjusted, if appropriate, to take account of residual salt or surface moisture (see also Policy WS7 Treatment Matrix).				
3) All decisions should be evidence-based, recorded and require monitoring and review.				

Policy WS 9:					
Carriageway Treatment Matrix: Treated Salt					
Weather Conditions Road Surface Conditions Road Surface Temperature (RST) when frost/ice predicted	Moderate Traffic		Light Traffic 23.00-04.00(1st treatment)		Ploughing
	Dry/Damp Road	Wet Road	Dry/Damp Road	Wet Road	
Precautionary Treatment (g/m²)					
At or above -1C	7	7	9	9	No
-1.01C to -2.0C	7	7	9	9	No
-2.01C to -3.0C	7	10	9	13	No
-3.01C to -4.0C	7	13	9	16	No
-4.01C to -5.0C	8	16	10	20	No
-5.01C to -7.0C	11	22	14	28	No
-7.01C to -10.0C	16	31	20	39	No
-10.01C to -15.0C	22	21	28	2 x 27	No
Forecast snow Up to 30mm	15	15	20	20	No
Forecast snow greater than 30mm	15-30	15-30	20-40	20-40	No
Post Treatment (g/m²)					
Hoar frost/ice (see precautionary treatment above)	8-30	8-30	10-40	10-40	No
(dependent on surface temperature and state)					
Snow where precautionary treatment has taken place	8	8	10	10	Plough first if depth >5-15mm see note A
Snow where precautionary treatment has not taken place	15-40	15-40	20-40	20-40	
Hard-packed snow/ice	salt and/or liquid de-icer				No

When we plough

Snow Clearance

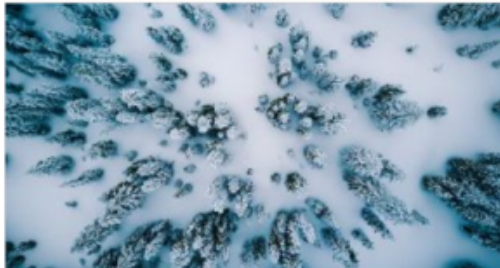
- 12.1 Section 150 of the Highways Act 1980 imposes a duty upon highway authorities to remove any obstruction of the highway resulting from the accumulation of snow.
- 'Treatment Time' has little relevance when snow accumulation is significant and ploughing is required
- Guidance considers it impractical to spread sufficient salt to melt anything other than very thin layers of snow and ice, and that ploughing is the only economical, efficient, effective and environmentally acceptable way to deal with all but very light snow.
- The snow ploughs are attached to our gritters to plough the fresh snow when it is over 30mm deep as, in these circumstances, salt doesn't work effectively.
- We also have 30,000 litres of liquid de-icer available for circumstances where temperatures fall below the threshold where salt can be effective and compacted snow proves resistant to snow ploughing.

Farmers


- **Agricultural contractors** – a number of farmers and contractors who have equipment to carry out snow clearing works on roads provide additional support at times when our resources are stretched. They can be deployed at short notice predominantly for use on the rural network.



Footways, Cycle tracks and cycleways



Clearing your path or driveway - the snow code

 Read

- As well as our 58 gritters, we also have 50 hand gritters which we use to treat footpaths in severe weather conditions.
- When we get a period of persistent ice and snow, we will treat those footpaths with the higher levels of use. These usually serve main shopping and employment areas, those adjacent to main hospitals and those that provide access to public transport interchanges.
- Once these have been treated, the remaining footpaths and cycle routes will be prioritised and treated if we have the resources available. In icy and snowy weather consider if your journey is necessary and wear appropriate footwear with good grip.

Weather forecasting and Weather Stations



MetDesk kirstie.williams@lancashire.gov.uk - Forecasts - Observ - Maps - Tools - Links - Newsletters -

Forecasts > 24 Hour Summary > Fri 29-10-2021 07:00:06 BST > Date 29/10/2021 <-> LA

Forecast Period: Friday 29/10/21 12:00 to Saturday 30/10/21 12:00 Forecasters DCT: 81286 928372

Headline: MORNING FORECAST - RSTs ABOVE ZERO TONIGHT
 Confidence: HIGH

General Synopsis
 Outbreaks of rain early this afternoon clearing to brighter skies and some showers later. Showers fading from most places by this evening to leave dry and clear conditions for a time, although the odd shower may linger across western parts of the county. Cloud and rain will return from the south-west overnight with RSTs staying above zero. There will be an ongoing risk of localised flooding throughout the day and overnight given recent high rainfall totals.

Snow Summary
 None.

Weather Type Key	☀	Dry	☁	Wet	H	Rain	CW	Dew	HF	Hoar Frost	I	Ice	S	Snow	SI	Sleet	HK	Hail	P	FG	Rain				
R_RAIN (mm)	12	13	14	15	16	17	18	19	20	21	22	23	00	01	02	03	04	05	06	07	08	09	10	11	12
RST (C)	10.0	9.2	9.5	9.1	9.2	8.4	7.6	7.1	6.7	6.2	5.9	5.1	6.4	6.8	7.1	7.2	7.4	7.5	7.6	7.5	7.1	6.8	7.2	8.4	9.9
Air Temp (C)	10.0	9.3	9.4	8.0	8.2	7.9	7.4	7.4	7.3	7.0	6.6	6.6	7.0	7.4	7.6	7.7	7.9	8.1	8.2	8.0	7.9	7.3	7.7	8.4	9.0
Weather Type	P	P	P	P	P	P	P	P	W	W	W	W	W	W	P	P	P	P	P	P	P	W	P	P	P
Hoar Frost	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ice	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Snow Accum. (cm)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Wind Speed (mph)	8	13	13	13	13	11	9	9	9	10	9	10	11	12	12	13	14	15	17	16	13	12	11	10	11
Visibility (km)	10	4	3	6	4	9	13	16	12	13	15	18	16	9	4	3	8	14	18	16	15	14	14	14	15
Precipitation (mm)	0.2	0.4	0.9	0.6	0.1	0.2	0.3	0.1	0.0	0.0	0.0	0.0	0.0	1.0	1.8	2.2	0.4	0.2	0.1	1.4	0.2	0.0	0.1	0.1	



Grit Bins

- Provision of Grit Bins The county council will only provide grit bins at new locations on roads maintainable at the public expense that are not on the Priority Road Network for precautionary salting.
- The county council will assess requests for new grit bins based on the following criteria:
 - exposed position or otherwise significantly affected by winter weather;
 - combination of vertical and horizontal profile producing a hazardous condition such as a steep bend with adverse camber;
 - junction hazard such as a steep road down to a junction with a main road;
 - traffic density at peak times;
 - high pedestrian movement such as to local centres and public transport interchanges, including railway stations;
 - the number of premises for which the road is an access
- Should a location no longer warrant a grit bin, removal can only take place subject to agreement with the relevant county councillor and the appropriate senior officer, with the final decision to be made by the Cabinet Member for Highways and Transport.

Communications

Self help - Raise awareness of the public's own role during winter.

Manage expectations - let the public know what we can and can't do. We need them to be realistic.

Improve perceptions - let stakeholders and the media know we are well prepared for winter.

We're prepared, are you?

We do everything we can to keep traffic moving on priority roads and we are open about the fact we cannot grit every road in Lancashire. Even if we had the resources needed, we couldn't grit them quickly enough to make a real difference.

No council does this. It is important people understand there are limitations to the service we can provide.

That is why we ask residents to take steps to make sure that when severe winter weather strikes they are prepared and able to manage.