Kilkenny County Council





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1. Document Control

Role	Name	Signature	Date
Prepared By:			
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Winter Services Manager			
Director of Services for Transportation			

2. Purpose and Scope

The purpose and scope of this document is to identify the processes, procedures and key personnel employed by Kilkenny County Council in the delivery of winter maintenance services throughout County Kilkenny.

3. Winter Maintenance Policy

Motorists have a general duty of care to consider prevailing weather and road conditions when planning and/or undertaking journeys across the public road network.

Due to the length of the road network in County Kilkenny, it is not feasible to treat all roads in the County during the Winter Season (October 17th, 2022 to April 30th, 2023). Accordingly, a form of prioritisation is necessary, and routes are divided into the following three priority designations:

Kilkenny County Council will seek to ensure, as far as reasonably practicable, the prevention of ice formation and of snow accumulation on **Priority 1 Routes** (**Red Routes**).

Kilkenny County Council will seek to ensure, as far as reasonably practicable, the prevention of ice formation and of snow accumulation on **Priority 2 Routes** (**Blue Routes**).

In extreme weather events and/or in circumstances requiring resource prioritisation, Priority 1 Routes will take precedence over Priority 2 Routes in terms of the allocation of available resources.

Kilkenny County Council will provide periodic winter maintenance services on **Priority 3 Routes** (**Green Routes**). Such services will only be provided on selected occasions associated with the anticipation of particularly severe weather conditions. Road-users must not assume that pre-salting services have been provided to the Priority 3 Network.

Mobilisation and Treatment times are detailed in Table 4.1 below. In the case of Priority 1 and 2 Routes, notification of the intention to commence pre-salting services is required a minimum of five to six hours in advance of the predicted time of ice formation.

Table 4.1

Treatment Route	Priority 1 Priority 2		Priority 3
Mobilisation Time	1hr	1hr	When possible
Treatment Time	2.5hr	3.5hr	When possible

4. Decision Matrix

The Duty Engineer will inspect the forecast system daily from approximately 2pm or as soon thereafter as the Met Eireann forecast has been received. The decision matrix in Table 4.1 consists of the following;

Table 4.1 Decision Matrix

Road Surface	Draginitation	Predicted Road Conditions			
Temperature	Precipitation	Wet	Wet Patches	Dry	
May fall below 1°C	No foa		Salt before frost	No action likely, monitor	
	No rain No hoar frost No fog	Salt before frost	(see note a)	weather (see note a)	
	Expected hoar frost Expected fog		Salt before frost (see note b)		
Expected to fall below 1°C	Expected rain before freezing	Salt after rain stops (see note c)			
	Expected rain during freezing	Salt before frost and, as required, after rain stops (see note d)		ter rain stops	
	Possible rain Possible hoar frost Possible fog	Salt before frost Monitor weather condition			
Expected Snow		Salt before snow fall			

The decision to undertake precautionary treatments should be, if appropriate, adjusted to take account of residual salt or surface moisture.

All decisions should be evidence based, recorded and require careful monitoring and review.

Notes:

- a) Particular attention should be given to the possibility of water running across carriageways and other running surfaces e.g. surface water off adjacent fields after heavy rains, washing off salt previously deposited. Such locations should be closely monitored. Ideally the source of the run-off should be diverted from the roadway.
- b) When a weather warning contains reference to expected hoar frost, considerable deposits of frost can occur. Hoar frost usually occurs in the early morning and is difficult to cater for because of the probability that any salt deposited on a dry road too soon before its onset, may be dispersed before it can become effective. Careful monitoring is required under this forecast condition which should ideally be treated just as the hoar frost is forming. Such action is usually not practicable and salt may have to be deposited on a dry road prior to but as close as possible to the expected time of the condition. Hoar frost may also be forecast at other times of the day, in which case the timing of salting operations should be adjusted accordingly.
- c) If under these conditions, rain has not ceased by early morning, crews should be called out and action initiated as rain ceases.
- d) Under these circumstances rain will freeze on contact with running surfaces and full precautionary treatment should be provided even on dry roads. This is a most serious condition and should be monitored closely and carefully throughout the danger period.

5. Winter Maintenance Route Mapping Schedule

The following list in Table 5.1 sets out the drawings which indicate the Priority 1, 2 and 3 Routes for Winter Maintenance and also indicate the Section 85 arrangements between Kilkenny County Council and Tipperary County Council whereby, in the interests of efficiency services are provided by one local authority on behalf of another. The mapping for Priority 1, 2 and 3 Routes is contained in the Appendices.

Table 5.1 Winter Maintenance Route Mapping Schedule

Drawing. No.	Drawing Name	Date
KCC-WM-01	Priority 1 & 2 Routes	Oct. 2015
KCC-WMP1&2-01	Route A – N77, N78, R639 & R693	Oct. 2017
KCC-WMP1&2-02	Route B – N76, N24 & R448	Oct. 2015
KCC-WMP1&2-03	Route C – R700, N25 & R704	Oct. 2015
KCC-WMP1&2-04	Route D – N10, R713, R448, R712 & Ring Road	Oct. 2015
KCC-WM-05	Section 85 Kilkenny/Tipperary	Oct.2013
KCC-WM-08	Section 85 Tipperary/Kilkenny	Oct. 2013
KCC-WMP3-01	Priority 3 Route Kilkenny Area	Sept. 2011
KCC-WMP3-02	Priority 3 Route Castlecomer Area	Nov. 2010
KCC-WMP3-04	Priority 3 Route Newrath Area	Nov. 2010

6. Duty Rosters

The duty rosters for Kilkenny Local Authority staff assigned to the winter service plan are contained in Tables 6.1 and 6.2 below.

Table 6.1 Duty Engineers Roster

Table 6.2 Drivers and Fitters Roster

7. Treatment Matrix

The following information outlines the application rates for pre-salting:

- Pre-salting is provided at a rate of 10g/m²
- At selected sections of pre-salting routes or on particularly severe events,
 application rates may be increased to reflect localised conditions.
- Routes have been designed to allow a treatment at 15g/m² when conditions dictate (For example during nights with prolonged cold periods or excess residual water).

8. Plant, Vehicles and Equipment

Kilkenny County Council operates 4 No. demountable salt spreaders which are permanently mounted on trucks for the duration of the winter maintenance season. Also, Kilkenny County Council has 3 No. demountable salt spreaders which are

permanently mounted on trucks to provide extra cover in the event of a breakdown or extreme conditions. In addition to the above plant, Kilkenny County Council maintains 3 No. salt spreaders in the Machinery Yard which can be mobilised in extreme conditions when required.

Kilkenny County Council has 7 No. snow ploughs available for deployment in the event of snow conditions. 5 No. of these snow ploughs are truck mounted and the other 2 No. have been adapted to fit loading shovels.

Kilkenny County Council also operates 7 No. demountable salt spreaders and 3 No. towed salt spreaders.

The list of plant and service records are itemised in Tables 9.1 and 9.2 below:

Table 9.1 Salt Spreaders - Service Record

Description	Depot Location	Capacity	Date Calibrated	Date Serviced	Date of Next Calibration	Date of next Service
SG10 – Demountable	Machinery Yard	9m³ Pre- Wet	Nov '22	Nov '22	Nov '23	Nov '23
SG9 – Demountable	Machinery Yard	9m³ Pre Wet	Nov '22	Nov '22	Nov '23	Nov '23
SG8 – Demountable	Machinery Yard	9m³	Oct '22	Oct '22	Oct '23	Oct '23
SG7 – Demountable	Machinery Yard	9m³	Oct '22	Oct '22	Oct '23	Oct '23
SG6 – Demountable	Machinery Yard	9m³	Oct '22	Oct '22	Oct '23	Oct '23
SG5 – Demountable	Machinery Yard	9m³	Oct '22	Oct '22	Oct '23	Oct '23
SG4 – Demountable	Machinery Yard	7m³	Oct '22	Oct '22	Oct '23	Oct '23
SG3 – Demountable	Machinery Yard	6m³				
SG2 – Demountable	Machinery Yard	6m³				
SG1 – Demountable	Machinery Yard	5m³				

CLN1 - Demountable	Thomastown Depot	3m³		
CLN2 - Demountable	Callan Depot	1.5m³		
CLN3 – Demountable	Kilmaganny Depot	1.5m³		
CLN4 – Towable	Kilkenny Depot	$3m^3$		
CC1 – Towable	Johnstown Depot	4.5m³		
CC2 – Towable	Castlecomer Depot	4.5m³		
N1 - Demountable	Listerlin Depot	3m³		
KK1 - Demountable	Machinery Yard	3m³		
TT1 - Demountable	Graignamanagh Depot	3.8m³		
TT2 - Demountable	Gowran Depot	2.6m³		
TT3 – Towable	Thomastown Depot	4.5m³		

Table 9.2 Snow Ploughs & Loading Shovels

Snowploughs & Loading Shovels	Depot Location	Fitted to	Date Serviced	Date of Next Service
86T – Loading Shovel	Machinery Yard		Regular Servicing	
101T – Manitou Teleporter	Machinery Yard		Regular Servicing	
102T – Manitou Teleporter	Newrath Depot		Regular Servicing	
77T – Manitou Teleporter	Machinery Yard		Regular Servicing	
Snowplough - SP - MY1	Machinery Yard			
SP - MY2	Machinery Yard			
SP - MY3	Machinery Yard			
SP - MY4	Machinery Yard			
SP - MY5	Machinery Yard			

SP - MY6	Machinery Yard		
SP – MY7	Machinery Yard		

9. Winter Service Plan Distribution List

Appendix 1 - Priority 1 & Priority 2 Treatment Routes

Appendix 2 - Priority 3 Treatment Routes

Appendix 3 - Section 85 - Treatment Routes Maps