Kilkenny County Council





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1. <u>Document Control</u>

Role	Name	Signature	Date
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Winter Services Manager	Tim Butler		
Director of Services for Transportation	Tim Butler		

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 12th, 2020 to April 30th, 2021). 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	Drasinitation	Predicted Road Conditions			
Temperature	Precipitation	Wet	Wet Patches	Dry	
May fall below 1°C	No rain No hoar frost No fog	Salt before frost	Salt before frost	No action likely, monitor	
	No rain No hoar frost No fog		(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 we		Monitor weather conditions	
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. <u>Duty Rosters</u>

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

Duty Engineer	Duty Period Start	Duty Period Finish
Philippe Beubry	12/10/2020	18/10/2020
Declan Murphy	19/10/2020	25/10/2020
Seamus Kavanagh	26/10/2020	01/11/2020
Stan Cullen	02/11/2020	08/11/2020
Stan Cullen	09/11/2020	15/11/2020
Seamus Kavanagh	16/11/2020	22/11/2020
Declan Murphy	23/11/2020	29/11/2020
Declan Murphy	30/11/2020	06/12/2020
Philippe Beubry	07/12/2020	13/12/2020
Philippe Beubry	14/12/2020	20/12/2020
Stan Cullen	21/12/2020	27/12/2020
Declan Murphy	28/12/2020	03/01/2021
Seamus Kavanagh	04/01/2021	10/01/2021
Stan Cullen	11/01/2021	17/01/2021
Philippe Beubry	18/01/2021	24/01/2021
Seamus Kavanagh	25/01/2021	31/01/2021
Declan Murphy	01/02/2021	07/02/2021
Philippe Beubry	08/02/2021	14/02/2021
Stan Cullen	15/02/2021	21/02/2021
Seamus Kavanagh	22/02/2021	28/02/2021
Declan Murphy	01/03/2021	07/03/2021
Philippe Beubry	08/03/2021	14/03/2021
Stan Cullen	15/03/2021	21/03/2021
Stan Cullen	22/03/2021	28/03/2021
Seamus Kavanagh	29/03/2021	04/04/2021
Seamus Kavanagh	05/04/2021	11/04/2021
Declan Murphy	12/04/2021	18/04/2021
Philippe Beubry	19/04/2021	25/04/2021
DM, PB, SC, SK	26/04/2021	30/04/2021

Table 6.2 Drivers and Fitters Roster

Drivers	Fitters	Duty Period Start	Duty Period Finish
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	12/10/2020	18/10/2020
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	19/10/2020	25/10/2020
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	26/10/2020	01/11/2020
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	02/11/2020	08/11/2020
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	09/11/2020	15/11/2020
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	16/11/2020	22/11/2020
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	23/11/2020	29/11/2020
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	30/11/2020	06/12/2020
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	07/12/2020	13/12/2020
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	14/12/2020	20/12/2020
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	21/12/2020	27/12/2020
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	28/12/2020	03/01/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	04/01/2021	10/01/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	11/01/2021	17/01/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	18/01/2021	24/01/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	25/01/2021	31/01/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	01/02/2021	07/02/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	08/02/2021	14/02/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	15/02/2021	21/02/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	22/02/2021	28/02/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	01/03/2021	07/03/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	08/03/2021	14/03/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	15/03/2021	21/03/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	22/03/2021	28/03/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	29/03/2021	04/04/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	05/04/2021	11/04/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	12/04/2021	18/04/2021
Matty Foley, Colm Killian, Nicky Grace, Pat Sweeney	Andy Cleere/James Fenion	19/04/2021	25/04/2021
David Dooley, Martin Morrissey, Michael Connery, Michael Reade	Declan Lawlor/Pat Kavanagh	26/04/2021	30/04/2021

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 2 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 6 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
SG9 – Demountable	Machinery Yard	9m³ Pre Wet	Oct '19	Oct '19	Oct '20	Oct '20
SG8 – Demountable	Machinery Yard	9m³	Oct '19	Oct '19	Oct '20	Oct '20
SG7 – Demountable	Machinery Yard	9m³	Oct '19	Oct '19	Oct '20	Oct '20
SG6 – Demountable	Machinery Yard	9m³	Oct '19	Oct '19	Oct '20	Oct '20
SG5 – Demountable	Machinery Yard	9m³	Oct '19	Oct '19	Oct '20	Oct '20
SG4 – Demountable	Machinery Yard	7m³	Oct '19	Oct '19	Oct '20	Oct '20
SG3 – Demountable	Machinery Yard	6m³				
SG2 – Demountable	Machinery Yard	6m³				
SG1 – Demountable	Machinery Yard	$5m^3$				
CLN1 - Demountable	Thomastown Depot	$3m^3$				
CLN2 - Demountable	Callan Depot	1.5m ³				
CLN3 – Demountable	Kilmaganny Depot	1.5m³				
CLN4 – Towable	Kilkenny Depot	$3m^3$				
CC1 – Towable	Johnstown Depot	4.5m ³				
CC2 – Towable	Castlecomer Depot	4.5m ³				
N1 - Demountable	Listerlin Depot	$3m^3$				
KK1 - Demountable	Machinery Yard	$3m^3$				
TT1 - Demountable	Graignamanagh Depot	$3.8 \mathrm{m}^3$				
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	
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

Issued to	Position	Organisation	Location
Colette Byrne	Chief Executive	Kilkenny County Council	County Hall, Kilkenny
Tim Butler	Director of Services	Kilkenny County Council	County Hall, Kilkenny
Seamus Kavanagh	Senior Engineer Roads & Water	Kilkenny County Council	County Hall, Kilkenny
Ian Gardner	Senior Engineer Kilkenny Municipal Area	Kilkenny County Council	City Hall
Brendan Sheehan	Executive Engineer Kilkenny Municipal Urban Area	Kilkenny County Council	City Hall
Eamon Mahon	Area Engineer Kilkenny Municipal Rural Area	Kilkenny County Council	County Hall, Kilkenny
Stan Cullen	Area Engineer Newrath Municipal Area	Kilkenny County Council	Piltown Area Office
Philippe Beubry	Area Engineer Castlecomer Municipal Area	Kilkenny County Council	Castlecomer Area Office
Declan Murphy	Area Engineer Thomastown/Callan Municipal Areas	Kilkenny County Council	Thomastown Area Office
John Prendergast	Machinery Engineer	Kilkenny County Council	Machinery Yard
Art Hennessy	Technical Services Supervisor	Kilkenny County Council	Machinery Yard
Lisa Bolger Hynes	Health & Safety Officer	Kilkenny County Council	County Hall, Kilkenny
Ray Wickham	Senior Executive Engineer	Carlow County Council	
Adrian Barrett	Senior Engineer	Laois County Council	
Liam Brett	Senior Engineer	Tipperary County Council	
Noel O'Driscoll	Senior Engineer	Wexford County Council	
Gabriel Hynes	Senior Engineer	Waterford Council	
Stephen Smyth	Winter Maintenance Manager	National Roads Authority	
John Moore	Winter Maintenance Manager	Lagan Egis	N25 Toll Plaza
Evelyn Cusack	Head of Forecasting	Met Eireann	Glasnevin Hill, Dublin 9.
Superintendent Derek Hughes	Traffic Corps	An Garda Siochana	Kilkenny Garda Station
Inspector Sean O'Meara	Traffic Corps	An Garda Siochana	Thomastown Garda Station

Appendix 1 - Priority 1 & Priority 2 Treatment Routes

Appendix 2 - Priority 3 <u>Treatment Routes</u>

<u>Appendix 3 - Section 85 -</u> <u>Treatment Routes Maps</u>