

# Winter Service Plan 2016/2017

## **Contents**

A1	Document Control	3
<b>A</b> 2	Approval List	3
А3	Distribution List	3
<b>A</b> 4	Purpose and Scope	4
<b>A</b> 5	Policy	4
1)	Introduction	4
a)	Defined Network of Roads	4
b)	Towns	5
2)	Organisation Responsibilities	5
3)	Resources	5
4)	Decision Making	6
а	) Weather Forecasts	6
b	Consultation and Site Inspections	6
5)	Treatment Decisions	7
а	Precautionary salting for Preventing Ice Formation (Pre-Salting)	7
b	Treatment of Snow Falls (Pre and Post-Salting)	7
6)	Performance Monitoring	7
7)	Salt Storage	7
<b>A</b> 6	Treatment Routes	8
<b>A</b> 7	Network Treatment Maps	9
<b>A</b> 8	Rosters	10
<b>A</b> 9	Public Information	10
A10	Historical Gritting Events	12
A11	Purchase a Salt Bin Scheme	13
Appe	ndix (i) Priority 1 & 2 Treatment Routes	14
Appe	ndix (ii) Treatment Routes Map	15
Appe	ndix (iii) Salting Route Lengths by Road Number	16

## Monaghan County Council 2016/2017 Winter Service Plan

The following report details Monaghan County Council's Winter Service Plan for the 2016/2017 winter service period.

## **A1 Document Control**

Revision Prepared by		Revision Details	Date
0.00	Rory Treanor	Final Draft	18/10/2016

## **A2** Approval List

Role	Name	Signature	Date
Author	Colin Murphy AE		
Updated	Rory Treanor AE		
Checked	Eddie Neeson ET		
Winter Service Manager	David Hanratty SEE		

## **A3** Distribution List

.

Issued To	Organisation / Company	Location
Duty Engineer(s)	Monaghan County Council	Monaghan
Chief Executive	Monaghan County Council	Monaghan
Health and Safety Officer	Monaghan County Council	Monaghan
Winter Maintenance Manager	TII	Dublin
Fire Officer	Monaghan County Council	Monaghan
District Engineers	Monaghan County Council	District Offices
General Service Supervisors	Monaghan County Council	District Offices
Machinery Yard Overseer	Monaghan County Council	Machinery Yard
Head of Forecasting	Met Éireann	Glasnevin Hill, Dublin 9

## A4 Purpose and Scope

The purpose of this document is to identify the processes, procedures and key personnel employed by Monaghan County Council, to deliver the winter service for County Monaghan. The Winter Service Plan will be amended as necessary during the winter season.

## **A5** Policy

#### **Winter Maintenance Policy Statement**

#### 1) Introduction

The Winter Maintenance Service is important in both safety and economical terms. The safe movement of all road users is perceived by the public to be important, especially during periods of snow and ice. Minimising delays and disruption due to bad weather has significant economic benefits. The primary responsibility for road safety remains at all times with the drivers of the vehicles. Each driver must exercise sufficient caution to take account of the prevailing weather conditions.

Monaghan County Council does not have resources available to carry out salting on its entire network. It will endeavour to maintain, clearly identified priority traffic routes in a passable condition, in the interest of maintaining road safety. It is necessary to prioritise the network to establish the level of treatment required for a particular route based on route importance and level of risk.

#### a) Defined Network of Roads

The service aims to prevent ice forming on a 'defined network of roads' which are:-

Route Designation	Description	Level of Service
Priority 1	Priority 1 include the National Primary and National Secondary Roads	These routes are ordinarily treated during winter weather. These routes receive pre and post salting treatment and ploughing when necessary.
Priority 2	Priority 2 includes all Regional Roads and a number of heavily trafficked local roads	These routes are ordinarily treated during winter weather but may have interruptions to treatment in certain severe weather events.
Priority 3	Priority 3 includes footpaths in urban centres and all other local roads.	Not treated as part of the normal winter service but may receive intermittent treatment during certain severe weather events subject to resource availability.

Treatment Route	Priority 1	Priority 2	Priority 3
Mobilisation Time	1 hr	1 hr	When possible
Treatment Time	2 hrs	3-5 hrs	When possible

The 'defined network of roads' comprises approximately 24% of the total road network in Monaghan.

The main activities of the Winter Maintenance Service are treating the roads to:-

- i. Try to prevent ice forming, known as 'pre-salting'
- ii. Melt ice and snow already formed, 'post-salting'
- iii. Remove snow

#### b) Towns

The Municipal Districts may carry out additional localised winter maintenance service within the Towns subject to resource availability and prevailing weather conditions. The nature and extent of the service provided will be determined by the District Engineer and the District General Service Supervisor (GSS).

#### 2) Organisation Responsibilities

- The Head of Section for Roads has overall responsibility for operations within the County. The Winter Service Manager is the Senior Executive Engineer for Roads.
- Three Duty Engineers are responsible for the day-to-day implementation of the Winter Service Plan.
- The District Engineer has responsibility for deciding which Priority 3 roads are treated in their district based on local weather conditions and available resources.
- The District Engineer has responsibility for determining the need and extent of winter maintenance operations within the towns in their district based on local weather conditions and available resources.
- The District General Service Supervisor has responsibility for mobilisation of the fleet.

Before the start of the winter season, which, for Local Authorities is defined as the third Monday in October, the Duty Engineers will organise the routing of vehicles and equipment to cover the defined network of roads.

These routes together with descriptive schedules will then be produced in plan form and placed in the Winter Service Plan.

#### 3) Resources

#### a) Vehicles

A fleet of 8 gritting vehicles, complete with snow ploughing blades for 7 vehicles will be provided for salting purposes. These vehicles will be allocated and based in different Districts in accordance with the drivers' routes to be undertaken. In addition, each Municipal District

will be equipped with 2 mini gritters capable of spreading 1.5 - 2 tonne of salt. The deployment of these gritters is at the discretion of the District Engineer and the District General Service Supervisor (GSS).

#### b) Manpower

- During all gritting operations vehicles will normally be manned by a driver and a helper.
- There are 16 drivers available to cover the 8 salting routes and they will be scheduled to work on a week on week off rota basis.
- Driver's aids are also scheduled on rota basis to assist the driver during salting operations.

#### 4) Decision Making

All decisions regarding Winter Maintenance Priority 1 and 2 callouts will be made and ordered by the Duty Engineers. The decision for ordering treatments shall be based on a combination of advance weather forecasts, consultation, site inspections and decision matrices, with due regard to available resources. The three Duty Engineers will be rostered on duty two weeks at a time, except for the 3 week period either side of Christmas where the roster will be week about. Change over between duty engineers will occur at **9.15am every Monday**.

The Duty Engineer will notify the GSS by phone call in good time to mobilise the fleet and record what time treatment will occur and when this decision was taken. The Duty Engineer will then notify all 16 drivers via text message of the decision for the day. This is to be done irrespective of whether salting is to occur or not. They will also notify the District Engineers by text message before 22.00 hours of what decision or possible decision has/may been taken.

#### a) Weather Forecasts

The County Council receives information from Met Eireann and Vaisala Bureau Service during the months October to April. The following information is received:

- 19th October 30th April 24 hour and 5 day forecasts
- Ice Predication Graphs Issued approx 2.00pm every day
- Regular Updating Services
- 24 hour Consultancy Service from the Met Eireann

In addition the County Council has access to the Vaisala website which gives information from adjacent counties weather stations.

#### b) Consultation and Site Inspections

In marginal circumstances the Duty Engineer will not rely solely on the Advance Weather Forecast. He will obtain up-to-date information from the sensors and website and from the Met Eireann Duty Forecaster who is available on a 24 hour per day basis, either before or after any inspection that may be necessary and before he makes a decision i.e. turning out.

#### 5) Treatment Decisions

#### a) Precautionary salting for Preventing Ice Formation (Pre-Salting)

Decision to treat shall be dictated by a combination of advance weather forecasts, consultation, site inspections and decision matrices. The decision to turn out for normal salting must be conveyed to the appropriate District GSS as early as possible depending on weather conditions so that the treatment can be totally completed if at all possible before road temperatures drop below 0 degrees.

The Duty Engineer should envisage notifying the District GSS of the possibility of salting on any given night before 5.00pm even if a decision has not yet been taken to salt.

The rate of spread of salt for pre-treatment in anticipation of freezing conditions shall be decided using the Treatment Matrices.

#### b) Treatment of Snow Falls (Pre and Post-Salting)

In the event of a confirmed snow forecast from the Met Eireann Forecaster pre and post - salting should be carried out using the decision and treatment Matrices. Ploughing should commence as soon as the operation is practical.

Private plant and equipment may be hired in if required and is at the discretion of the District GSS. No general mobilisation of equipment will take place until the situation has been fully assessed and then a controlled approach is required.

#### 6) Performance Monitoring

The Duty Engineer and the Drivers will endeavour to ensure that:

- Gritter calibrations are as required at all times throughout the winter period. Pre season and regular ongoing checks must be made.
- The amounts of salt used on each route are recorded.
- The actual weather conditions experienced are recorded.

#### 7) Salt Storage

It is the intention of Monaghan County Council to keep its salt stocks at as high a level as feasible during the season. Currently Monaghan County Council has storage for approximately 3,500 tonnes of salt (enough to do circa 50 pre salting runs for standard frost conditions).

During severe snowfalls and, where resources permit, a contingency plan may be initiated incorporating the provision of grit at strategic locations in each municipal district throughout the county.

#### A6 Treatment Routes

The 'defined network of roads' to be gritted ,which consists of Priority 1 & 2 roads, are treated via 8 separate gritters covering 8 treatment routes. The 8 routes are described below and are highlighted on the Treatment Routes Map in Appendix (ii) of this report.

.....

#### Red Route.

N2 Moy Bridge to Emyvale, Part of Mullen Mill road, Markethouse Lane in Emyvale, N2 Emyvale to Monaghan, Seminary Hill, N12 Monaghan to Middletown, Pipers Bridge to Glaslough school, Glaslough school to N12, Glaslough School to Emyvale, Achesons Scrap Yard to Carrickroe and Bragan Cross, R186 Bragan Cross to Border, R186 Bragan Cross to Monaghan.

.....

#### Light Blue.

R183 Ballybay to Clones, R212 Clones to Scotshouse, Scotshouse -Redhills road to border, R212 Scotshouse - Ballyhaise road to Cavan border, Bells Cross to Drum to Cavan border, Bells Cross to Newbliss.

\_\_\_\_\_

#### Green Route.

R188 Monaghan to Rockcorry, R193 Rockcorry to R190, R188 Rockcorry to Border, R189 Tanagh to Newbliss, R189 Newbliss to Aghabog Junction, Aghabog junction to Bog Cross to Killagraggy, R189 Aghabog turn to Monaghan. Hillgrove turn to Killyneil Crossroads, R213 Castleshane to N12.

------

#### **Purple Route.**

N54 Monaghan to Clones to Border, R183 Newtownbutler Road to Border, Clones Town road past GAA grounds and towards border loop, Clones to Roslea border, Roslea Border to N54, Tirnaneil turn on N2 to Ballinode – Scotstown – Tydavnet and back onto N2. Scotstown to Knockatallon Cross to Slieve Beagh Hotel.

\_\_\_\_\_\_

#### Blue Route.

N2 Monaghan to Clontibret chapel, N2 Clontibret chapel to Monaghan, Monaghan Traffic lights to Magic roundabout to Maurice Grahams roundabout to N2 Corlat roundabout, Old N2 Clontibret chapel to Lidl in Castleblayney including Annyalla Slip Road on Bypass, McQuillan Stairs road to Cremartin roundabout on bypass, Cremartin road roundabout on bypass to Scotch Corner, Scotch Corner to Ardaghy to primary school, Ardaghy to Tommy Martins Junction, R162 Monaghan to Ballybay, R185 Ballybay to Clontibret, Clontibret to Keady road to Armagh border, R214 Green Lane.

......

#### Yellow Route.

N2 Donaghaymone junction to Carrickmacross slip way, N2 Carrickmacross to Clontibret roundabout single lane, Clontibret to Castleblayney single lane, Castleblayney to Clontibret overtaking lane, Clontibret to Castleblayney overtaking lane, N53 Castleblayney to Border, N53 link road to N2 at Broomfield, R181 Castleblayney to Keady border, R182 Castleblayney to Newtownhamilton border, Old N2 at Castleross Nursing home.

.....

#### Pink Route.

R181 Castleblayney to Cavan border, R180 Carrickmacross to Tossy Cross, R162 Cavan border to Ballybay, R190 Ballybay to Cavan border, Latton turn for Veldons cross on R190 to Latton to 5 crosses to Tossy Cross to junction with R181, R180 Tossy cross to Ballybay, Meeting House Lane, Fire station, R183 Ballybay to Castleblayney.

#### **Black Route.**

N2 Carrickmacross to Aclint, Old N2 to Carrickmacross, Drumconrath Road out of Carrickmacross to Meath Border, R178 Carrickmacross to Cavan border, R179 Carrickmacross to Cavan Border, R178 Carrickmacross to Essexford, Essexford to Inishkeen via Mucker as far as Patrick Kavanagh Graveyard, Inishkeen over Fane river to Finnigans Cross, R179 Carrickmacross to Armagh border, Lidl road to Dundalk road roundabout, Link Road from N53 to R179 via Blackstaff, Horseshoe road at Broomfield.

## A7 Network Treatment Maps

The following Network Treatment Maps are included in Appendix A (i) and A(ii) of this Report. These maps are also available for download on the Monaghan County Council Website at:

http://www.monaghancoco.ie/en/services/roadtransport/wintermaintenance/saltingroutes/

Priority 1 & 2 Treatment Routes

Treatment Routes (shows 8 separate Treatment Routes covering Priority 1 & 2 routes)

The meaning of the route priorities and the level of service to be provided are explained in section A5 of this report.

#### A8 Rosters

Details of the duty rosters for the personnel specified below, for the winter service period, will be forwarded to the relevant personnel in advance of the winter service period.

- Supervisors;
- Mechanics and fitters;
- Drivers:
- Duty Engineers

#### A9 Public Information

#### WHAT IS DONE

Monaghan County Council provides the following winter service:

- Monitoring of road conditions from the middle of October until the end of April, using detailed predictions provided by Met Éireann, roadside weather stations, and ice prediction software.
- A fleet of <u>Eight</u> dedicated gritters for spreading salt on a strategic network of Priority 1 & 2 roads whenever road frosts are forecast. This network is detailed in Appendix A(i).
- <u>Seven</u> lorry-mounted snowploughs for use during significant snow/sleet conditions.
- Maintains each year, a salt storage capacity of approximately <u>3,500</u> tonnes, adequate to provide <u>50</u> operations of precautionary salting on the designated routes for a standard night.
- Treatment for approximately 610km of Priority 1 & 2 road network.
- Winter Maintenance Operation updates via social media

In general all other roads will not be dealt with except where they become impassable due to severe and/or prolonged cold spells and will only be dealt with after designated roads have been addressed and resources are available. Furthermore, in cases of extended extreme weather events (such as that which occurred in the winter of 2009/2010 and 2010/2011), it may be deemed necessary to concentrate resources on those sections of the strategic network designated as Priority 1.

Driving in winter conditions involves particular risks. Transport Infrastructure Ireland has produced a leaflet entitled *Safe Winter Driving* that provides useful advice for motorists on how best to deal with these risks, and is available to download on the TII website:

http://www.tii.ie/tii-library/policies/Winter%20Maintenance/Safe-Winter-Driving.PDF

#### **SERVICE LIMITATIONS**

Despite the resources that are applied to providing the winter service, ice-free roads cannot be guaranteed. The motorist should remember the following:

- Approximately <u>76</u> % of roads are NOT routinely salted.
- In Ireland there are a high proportion of marginal nights when temperatures are very close to zero. This makes it more difficult to accurately predict frost than in colder countries. As a consequence Met Éireann can only guarantee 80% accuracy in their forecasts
- It can take up to 4 hours to salt a route, so any journey may start or end on an untreated section of the route.
- In heavy rain, salt can be washed away and the wet surface may subsequently freeze if the temperature falls below zero.
- In cases of extended severe weather events, the network salted may have to be reduced to Priority 1 routes only.
- Spreading of Salt does not mean that the road surface will necessarily be ice free. In freezing conditions always drive with great care even if the road has been salted.

It's your responsibility to be aware of the dangers of adverse conditions and to drive appropriately.

- During cold weather check the Met Eireann weather forecast.
- If frost or snow is predicted, plan to leave earlier for your journey or avoid it completely.
- Tyres should have plenty of tread and be correctly inflated. Tyres are a vital component; remember they are only contact with the road surface.
- If possible, take a route that avoids steep hills of severe bends.
- In as much as is possible, stick to the main/treated roads.
- Remember and accept that journey times will be longer during severe cold weather.
- Make sure your vehicle is "warmed-up" and clear of ice. Ensure the wipers and washers are working correctly.
- Keep washer bottle topped up with suitable screen wash. Have de-icers and scraper in your vehicle.
- Remember to drive slowly in a low gear, rather than braking on hills and bends.
- Leave adequate distance between you and the vehicle in front of you.
- Drive with your dipped headlights on. Use fog lights if visibility is severely reduced.
   But remember to turn them off when visibility improves.
- If in doubt, stay at home until conditions improve. Your priority is the safety of you, your passengers and others.

## **A10 Historical Gritting Events**

The number of times the winter gritting crews are called out to salt the Scheduled Routes depends on the severity of the weather and the Icecast forecast during the season. The numbers of call-outs in past seasons were as follows:

## Salting Records for Monaghan County Council 2003 - Present

Season	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Total	Salt used (tonnes)	Salt/callout (tonnes)
2003/2004	0	4	9	12	1	4	0	30	N/A	
2004/2005	0	2	8	6	7	3	0	26	N/A	
2005/2006	0	8	12	10	3	5	0	38	N/A	
2006/2007	0	2	5	4	8	0	0	19	1,077	56.68
2007/2008	0	1	8	10	5	3	1	28	1,745	62.32
2008/2009	0	3	23	16	13	2	0	57	3,931	68.96
2009/2010	0	5	27	25	19	4	1	81	4,134	51.04
2010/2011	0	20	34	21	8	2	0	85	4,733	55.68
2011/2012	0	2	24	10	6	4	1	47	3,930	83.62
2012/2013	0	16	21	19	12	13	0	81	7,590	93.7
2013/2014	0	11	16	19	15	11	0	72	6140	85.28
2014/2015	1	4	21	27	20	11	1	85	7800	91.76
2015/2016	0	5	8	17	18	7	4	59	4431	75.1
AVERAGE	0.1	6.4	16.6	15.1	10.4	5.3	0.6	54.5	4551.1	72.4

#### A11 Purchase a Salt Bin Scheme

In 2011 Monaghan County Council introduced the "Purchase a Salt Bin Scheme" which allows Local Community Groups, Businesses, Schools, Churches and the general public to prepare themselves for the winter period at a reasonable cost. It is up to the community group/school/business to source their own salt after the first fill has been used.



Capacity (kg)	400
Length (mm)	1020
Width (mm)	610
Height (mm)	1020

Application forms, which include prices and purchase options can be downloaded from: <a href="http://www.monaghan.ie/en/services/roadtransport/wintermaintenance/purchaseasaltbinscheme/">http://www.monaghan.ie/en/services/roadtransport/wintermaintenance/purchaseasaltbinscheme/</a>

Application forms are also be available from each of the following offices

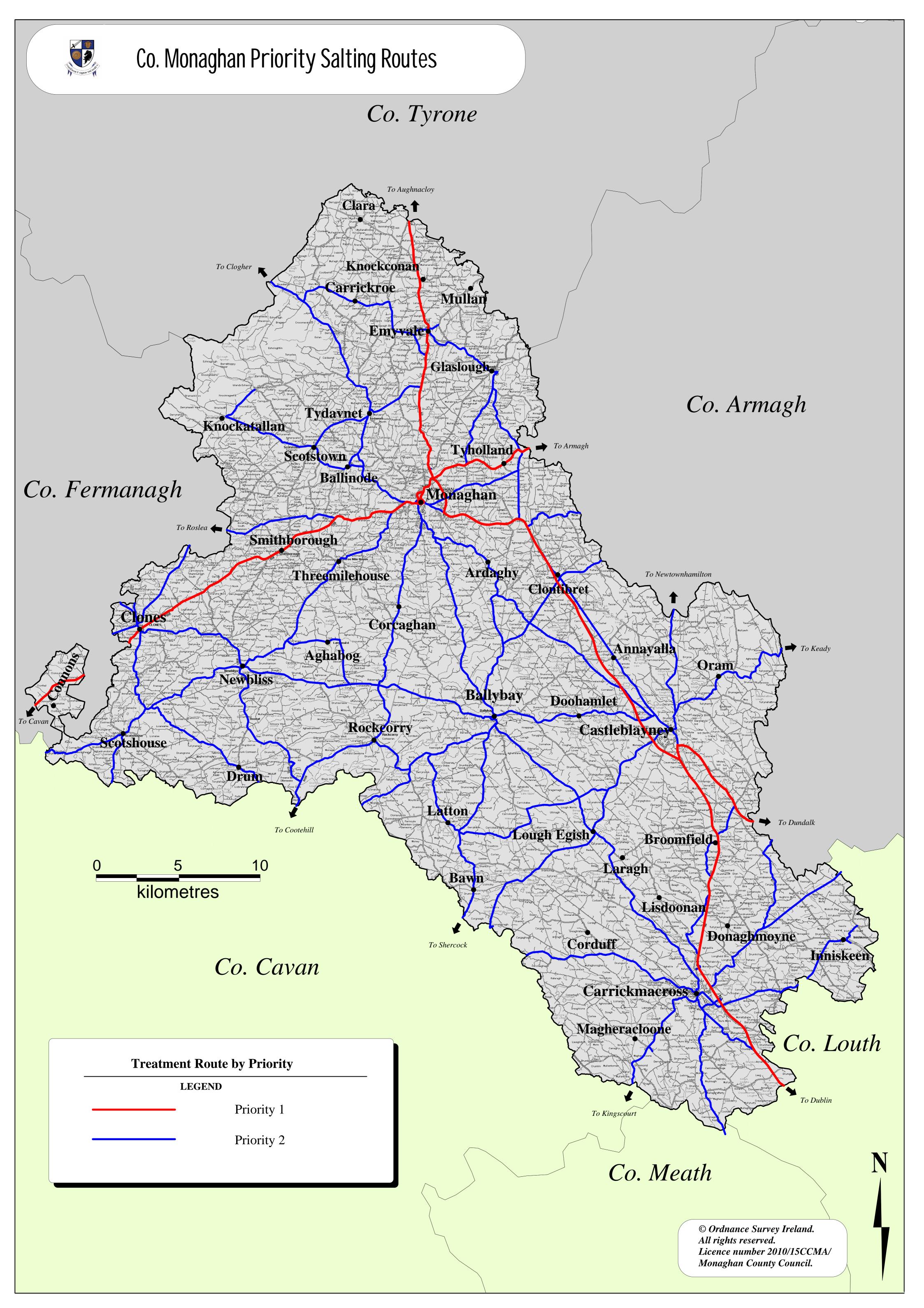
MUNICIPAL DISTRICT	TELEPHONE
Carrickmacross/Castleblayney District Office	042.9661236
Ballybay/Clones District Office	047.51018
Monaghan District Office	047.73777

Applications for Salt Bins will be subject to Availability and Terms and Conditions. <u>Application Forms together with payment to be returned to Monaghan County Council, Roads Section, MTEK II, Knockaconny, Monaghan.</u>

MONAGHAN COUNTY COUNCIL WILL NOT BE REFILLING THE SALT BINS AFTER THE FIRST FILL HAS BEEN USED. A list of local salt suppliers is available on the Council's Website.

In 2011 seventy applications were received by Monaghan County Council. In 2012 eleven applications were received by Monaghan County Council. In 2013 three applications were received by Monaghan County Council. In 2014, two applications were received by Monaghan County Council.

# Appendix (i) Priority 1 & 2 Salting Routes



Appendix (ii)	Treatment Routes Map



Appendix (ii)	Treatment Routes Map

# Appendix (iii) Salting Route Lengths by Road Number

Road No	Length (Km)	Location
National	<u> </u>	
N2	101	Moy Bridge to Aclint
N12	8	Monaghan to Armagh Border
N54	30	Monaghan town to Drummully
N53	11	Castleblayney to Ballinacarry Bridge
Regional	· ·	
R162	31	Clontibret-Ballybay-Shercock
R178	19	Dundalk-Carrickmacross-Shercock
R179	21	Culloville-Carrickmacross-Kingscourt
R180	22	Carrickmacross-Ballybay
R181	27	Keady-Castleblayney-Shercock
R182	10	Oram-Castleblayney
R183	38	Clones-Ballybay-Castleblayney
R184	9	Ballybay-Clontibret
R185	10	Glaslough-Monaghan
R186	19	Monaghan-Clogher
R187	7	Monaghan-Roslea
R188	23	Monaghan-Cootehill
R189	25	Monaghan-Newbliss-Cootehill
R190	10	Ballybay- Cootehill
R212	10	Clones-Scotshouse-Ballyhaise
R213	5	Castleshane-Tyholland
R214	4	Castleshane-Keady
R927	2	Carrickmacross south-Carrickmacross-North
R937	1	Monaghan north-Monaghan south
R938	1	Castleblayney south - Castleblayney north
Local	·	
LP2000/LP2010/LP1020/LP11		
71/LP1170	13	Ballinode-Scotstown-Tydavnet-N2
		Scotstown - Knockatallon Cross - Slieve
LP2040/1031/1003	8	Beagh
LP1210/LP1211	5	Glaslough-Emyvale
LP1300/LP1301	4.4	Pipers Bridge-Glaslough
LP1400/LP1401	6	Monaghan-Killyneil
LP1500/LP1501	9.5	Ardagh Road
LP3421/LP3420/LP3410/LP34	10.0	Control of the contro
11	12.3	Castleblayney - Scotch Corner
LP3530	2.8	Clontibret - Armagh Border
LT64112/LT24112/LP2412 LP2111/LP2112/LP2110/LT21	6.2	R189-R183 Link
001	6	Clones-Roslea
LP2220/LP2221/LP2222	7.2	Newbliss-Scotshouse
LP2260/LP2261/LP2262/LP22	ı . <b>L</b>	
63/LP2232	6.8	Scotshouse-Drum
LP2240/LP2241	5	Scotshouse-Redhills
LP4600/LP4601/LP4602/LP46		
03	5.5	Blackstaff Road
Old N2	5	Old N2 Carrickmacross - Ardee
Old N2	13	Old N2 Clontibret-Castleblayney

LP4800/LP4801/LP4802/LP48 03	8.2	Carrickmacross - Drumconrath road
Road No	Length (Km)	Location
LP3010/LP3012/LS7110/LS71	• ,	
11	14.3	Veldons Cross to Tossy Cross
LP4300	2.3	N2-N53 Link road
LS8150/LS8151/LS8152	4.5	Old N2 - Carrickmacross
LS8170	2.7	Broomfield
LP2233	1.6	Drum to Cavan Border
LP1200	1	Mullin Mills Road
LT11603	1	Market House Lane
LP1220	1	Sem Road
LP4620/4621/4622/4623	11.4	Essexford to Inishkeen
LP4630	1.2	Iniskeen to Finnegans Cross
Total Length of Road Treated	608.9	

National	150
Regional	294
Local	164.9
Total	608.9.