

1. INTRODUCTION

- 1.1 Section 111 of the Railways and Transport Act 2003 provides a duty on a Highway Authority to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow and ice.
- 1.2 The Winter Service Plan for 2016/2017 provides details of the policies, procedures and practices employed by West Berkshire Council, to ensure it meets the responsibilities for providing the Winter Service in West Berkshire.
- 1.3 The purpose of the Winter Service is to provide, as far as reasonably possible, the safe movement of all highway users on designated roads throughout the District whilst keeping delays and accidents brought about by adverse weather conditions to a minimum.
- 1.4 West Berkshire Council is the highway authority in West Berkshire. The Winter Service is delivered by the Council's Term Maintenance Contractor Volker Highways Ltd.
- 1.5 The M4 and A34 form part of the national Motorway and Trunk Road network and are the responsibility of the Department for Transport (DfT) through their agents Highways England. West Berkshire Council has no responsibility for the winter service activities on these roads.
- 1.6 The core Winter Service in West Berkshire shall be provided for a period of 22 weeks commencing Monday 31 October 2016 (Week 44) and finishing Sunday 2 April 2017 (Week 13). The service period shall be extended if sub-zero temperatures are forecast outside the core period.

2. WINTER SERVICE POLICY

- 2.1 West Berkshire Council aims to provide a service to reduce as far as possible the effects of hoar frost, ice and snow and other adverse weather conditions to provide travelling conditions as safe as reasonably practicable having regard to financial constraints and the road hierarchy detailed in Section 7 of this document.
- 2.2 Where reasonably practicable to do so, the Winter Service is delivered in accordance with the recommendations given within the Code of Practice for Highway Maintenance 'Well-Maintained Highways' July 2005 as amended December 2009 and the recommendations given in 'The Resilience of Englands Transport Systems in Winter' Interim Report, July 2010.
- 2.3 The service cannot guarantee that the main routes will be kept open or free of ice or snow, and the provision of the service does not override driver's responsibility to drive safely and in accordance with the conditions. The Council has developed an information leaflet entitled "Safer Driving this Winter on West Berkshire Roads" which is available on the Council's website <http://www.westberks.gov.uk/>.
- 2.4 **POLICY FOR TREATMENT WHEN HOAR FROST AND/OR ICE IS FORECAST**

Roads

The Road Primary Treatment Network (Appendix A) will receive precautionary treatment when hoar frost and/or ice is forecast.

The Road Secondary Treatment Network (Appendix B) will receive precautionary treatment **when hoar frost and/or ice have been experienced for an unbroken period of 72 hours or greater.**

The Road Contingency Treatment Network (Appendix C) will be treated when hoar frost and/or ice or snow are forecast but only when there is a national shortage of salt and salt supplies become limited or directions are received from Central Government. This will supersede the primary and secondary treatment networks in these circumstances.

Where the Council has been made aware of water being deposited on the highway as the direct result of an unforeseen incident (fire, road traffic accident etc), burst water main or water issuing from apparatus, salt shall be applied to reduce as far as possible the effects of hoar frost, ice and other severe winter weather conditions on the highway. Ice warning signs shall be erected where appropriate.

Where the Council has been made aware of a spring, ice warning signs shall be erected on site.

Paved Footways/Cycleways (adjacent to carriageways)

The Paved Footway Treatment Network (Appendix D) will receive precautionary treatment only **when hoar frost and/or ice have been experienced for an unbroken period of 72 hours or greater.**

Paved cycleways that form part of the carriageway and are located on a Primary, Secondary or Contingency treatment network will be treated as part of these networks when instructed.

Paved cycleways that form part of a footway (footways that are adjacent to carriageways) and are located on the Paved Footway Treatment Network will be treated as part of this network when instructed.

Paved Footpaths/Cyclepaths (remote from carriageways)

With the exception of subways and some identified link footpaths in town centres, no paved footpaths/cyclepaths that are remote from a carriageway will receive precautionary treatment on the forecast of hoar frost and/or ice due to the impracticability and financial implications of doing so.

Council Offices and Public Buildings with Daily Access

West Berkshire Council will provide and maintain salt bins at Council Offices and some public buildings with daily access (Appendix F).

Public Car Parks

Roof areas and the exposed parking area at Level 2 of the Kennet Centre and the roof areas at Northbrook multi-storey car parks in Newbury, will be subject to a risk assessment by the Car Parks service to determine what action, if any, is required. Open air surface car parks are not treated unless snow conditions are forecast.

Motorways and Trunk Roads

The treatment of the M4 motorway and the A34 trunk road is the responsibility of Highways England.

Railway Level Crossings

Level crossings will *not* receive precautionary treatment as salt acts as an electrolyte and short circuits the signal system. When an instruction to treat the highway network is issued, Network Rail will be contacted by email so they may arrange appropriate treatment using their own contractors.

All gritting vehicles will carry a notice issued by Network Rail giving instructions not to salt (Appendix P).

Treatment Time (Primary Treatment Network)

Unless a variation has been agreed by the Council, the treatment time will be 3 hours from the instructed start time to the completion of the treatment for each route.

In addition, the Contractor will be given at least 1 hour to mobilise the fleet.

2.5 POLICY FOR TREATMENT WHEN SNOW IS FORECAST

Roads

The Road Snow Clearance Network (Appendix H) will receive treatment of salt/grit (as appropriate) to help prevent the laying of snow/formation of ice and will be ploughed when conditions allow.

Paved Footways/Cycleways (adjacent to carriageways)

The Paved Footway Snow Clearance Network (Appendix I) will receive treatment of salt or grit to help prevent the formation of ice and to facilitate the removal of snow.

Paved cycleways that form part of the carriageway and are located on the Road Snow Clearance Network will be treated as part of this network when instructed.

Paved cycleways that form part of a footway (footways that are adjacent to carriageways) and are located on the Paved Footway Snow Clearance Network will be treated as part of this network when instructed, by Culture and Environmental Protection, and Planning and Countryside staff/contractors as resources become available.

Paved Footpaths/Cyclepaths (remote from carriageway)

With the exception of subways and some identified linked footpaths in town centres, no paved footpaths/cyclepaths that are remote from a carriageway will receive treatment to facilitate the removal of snow due to the impracticability and financial implications of doing so.

Council Offices and Public Buildings with Daily Access

The roads leading to Council Offices and some public buildings with daily access will be treated with salt or grit as part of the Road Snow Clearance Network (Appendix H).

Public Car Parks and Newbury Bus Station

The roads leading to public surface and multi-storey car parks (Appendix E) will be treated with salt or grit as part of Road Snow Clearance Network.

Surface public car parks and Newbury Bus station will be treated along with roads where width restrictions prevent mechanical spreading by Culture and Environmental Protection, and Planning and Countryside staff/contractors as resources become available.

Roof areas and the exposed parking area at Level 2 of the Kennet Centre and the roof areas at Northbrook multi-storey car parks in Newbury will be subject to a risk assessment by the parking staff to determine what action, if any, is required.

2.6 OTHER POLICIES

Salt Bins

Salt Bins are provided by West Berkshire Council to serve Council offices and public buildings with daily access (Appendix F) and Town and Parish Councils as a means of self-help to enable communities to treat targeted areas of the public highway (Appendix G). ***Salt bins are not provided for treating private property.***

West Berkshire Council and the Parish/Town Councils are responsible for the maintenance and refilling of their respective bins.

Motorways and Trunk Roads

The treatment of the M4 motorway and the A34 trunk road is the responsibility of Highways England.

Railway Level Crossings

Level crossings will not be cleared of snow. Network Rail will be contacted by email so they may arrange appropriate treatment using their own contractors.

All gritting vehicles will carry a notice issued by Network Rail giving instructions not to salt (Appendix P).

Cross Boundary Treatment

By agreement, no cross boundary salting and snow clearance will take place between West Berkshire Council and adjoining Counties/Unitary Authorities or vice versa.

3. WEST BERKSHIRE COUNCIL/CONTRACTOR RELATIONSHIP

- 3.1 The Winter Service is provided by the Council's Highway Term Contractor Volker Highways Ltd in accordance with the requirements of the Term Maintenance Contract for Highways and Bridges 2016.
- 3.2 The following table indicates how the principal winter service responsibilities are divided between the Council and Volker Highways Ltd.

Preparation of Winter Service Policy and Plan	West Berkshire Council
Road hierarchy priorities	West Berkshire Council
Salt purchase	Volker Highways Ltd
Routeing (salting and snow clearance)	Volker Highways Ltd - with guidance from the Council
Winter Service Vehicles (plant including gritters, snowploughs and snowblowers)	Volker Highways Ltd
Decision making	West Berkshire Council
Day-to-Day operations	Volker Highways Ltd - under the instruction and guidance of the Council
Manning levels	Volker Highways Ltd
Performance monitoring	West Berkshire Council / Volker Highways Ltd
Opening of Emergency Operations Centre and Emergency Planning Room	West Berkshire Council
Approval to commence operations in extreme snow conditions	West Berkshire Council

4 STAFFING AND MANAGEMENT (WEST BERKSHIRE COUNCIL)

- 4.1 The day to day overseeing and management of the Winter Service will be the responsibility of the Winter Service Manager. This role is normally performed by the Principal Engineer (Highway Maintenance) or in his absence the Highways Manager.
- 4.2 The Council will operate a 24/7 Winter Service Duty Officer rota that covers the described Winter Service period. The Winter Service Manager shall issue a copy of the rota to the Council's Emergency Planning team, the Customer Services Team and the Contractor. The roster is detailed in Appendix K.
- 4.3 When on duty, each Winter Service Duty Officer will be available 24 hours a day and will be contactable on the dedicated Winter Service mobile telephone.
- 4.4 During office hours (08:30 to 17:00 Monday to Thursday, 08:30 to 16:30 Friday) all Winter Service enquiries from members of the public will be directed to the Customer Services team on 01635 519080.
- 4.5 For Emergency Enquiries outside of office hours, enquiries will be directed to West Berkshire Council's Emergency service on 01635 42161.

Winter Service Duty Officer's home/private telephone numbers along with the Winter Service Mobile telephone number shall not be released to members of the public.

- 4.6 Prior to the commencement of the Winter Service, each Winter Service Duty Officer will be provided with an information pack, which includes details of all appropriate telephone contacts, together with any additional information that may be appropriate.

5. STAFFING AND MANAGEMENT (HIGHWAYS TERM CONTRACTOR)

- 5.1 The Contractor shall provide all necessary plant, labour and materials to deliver the Winter Service in compliance with the requirements of the Term Contract for Highways and Bridges 2016.

6. DECISION MAKING

- 6.1 Decision making is the responsibility of West Berkshire Council’s on-call Winter Service Duty Officer.
- 6.2 When on duty, the Winter Service Duty Officer will make decisions regarding Winter Service action in accordance with this Policy and Plan. The Winter Service Manager will be available to give advice to the Winter Service Duty Officer if required.
- 6.3 The Winter Service Duty Officer is responsible for liaising directly with the forecast service provider’s duty forecaster. Using the forecast data provided, the Winter Service Duty Officer will make his decision regarding treatment and will disseminate his decision along with any relevant supporting information first to Volker Highways Ltd and then to the following stakeholders:

West Berkshire Council	
Volker Highways Ltd	
Veolia Waste Management	
Hampshire County Council	
MeteoGroup	
Oxfordshire County Council	
Royal Berkshire Fire & Rescue Service	
Wiltshire Council	
Highways Agency Area 3	
Ambulance Service	
Heart Radio	
Radio Berkshire	
The Breeze Newbury	
Network Rail	

- 6.4 Further information concerning weather forecasts and decision making is provided in Sections 12 to 14. Call out guidelines are provided in Appendix L. The Winter Service Manager will also be available to give advice to the Winter Service Duty Officer when required.

Timing of Actions

- 6.5 Treatment during 'rush hours' should be avoided whenever possible. For the purposes of this plan, rush hour shall be taken as 07:30 – 09:30 in the morning and 16:30 – 18:30 in the afternoon/evening.
- 6.6 The Winter Service Duty Officer's decision will be recorded on the West Berkshire Council Winter Service Daily Action Report as detailed in Appendix M. This form is filed electronically by the Winter Service Manager.
- 6.7 Requests to salt will be assessed by the Winter Service Duty Officer and his/her decision will be recorded on the West Berkshire Council Winter Service Request for Salting Form as detailed in Appendix O.
- 6.8 The Winter Service Duty Officer will communicate with the Council's Highway Term Maintenance Contractor via telephone or email.
- 6.9 Appropriate training will be provided for all Winter Service Duty Officers particularly with regard to technological improvements in forecasting techniques and the ice prediction system.

7. TREATMENTS

7.1 TREATMENT WHEN HOAR FROST AND/OR ICE IS FORECAST

Roads

- 7.1.1 ***The Road Primary Treatment Network (Appendix A) will receive precautionary treatment when hoar frost and/or ice is forecast.***
- 7.1.2 The total length of the Road Primary Treatment Network is 496.5km which represents 39% of the highway network (excluding motorways and trunk roads) and comprises all A and B classified roads and some strategically important C and U roads.
- 7.1.3 The Road Primary Treatment Network is broken down into 9 individual treatment routes. Each route has been optimised so that it takes no longer than 3 hours to treat.
- 7.1.4 ***The Road Secondary Treatment Network (Appendix B) will receive precautionary treatment when hoar frost and/or ice have been experienced for an unbroken period of 72 hours or greater.***
- 7.1.5 The total length of the Road Secondary Treatment Network is 285.7km which represents 22% of the highway network (excluding motorways and trunk roads) and comprises locally important C and U roads.
- 7.1.6 The Road Secondary Treatment Network is broken down into 11 individual treatment routes.
- 7.1.7 Sections of road having proprietary 'porous' type surfacings will receive twice the normal rate of spread of salt. These sections of road are detailed in Appendix J.
- 7.1.8 ***The Road Contingency Treatment Network (Appendix C) will be treated when hoar frost and/or ice or snow are forecast but only when there is a national shortage of salt/limited salt supplies and/or a Government directive.***
- 7.1.9 The Road Contingency Treatment Network has been designed in accordance with the governing guidance as detailed in Section 18 and provides a minimum essential service to the public, including strategic routes, access to key facilities and other transport needs. The network is approximately 592 Km in length and represents 46.8% of the total road network, ie, it is considerably less than the combined primary and secondary networks.

Paved Footways/Cycleways (adjacent to carriageways)

- 7.1.10 ***The Paved Footway Treatment Network (Appendix D) will receive precautionary treatment only when hoar frost and/or ice have been experienced for an unbroken period of 72 hours or greater.***
- 7.1.11 The network comprises primary walking routes (town centres including routes to main transport hubs, Council Offices, Council owned surface car parks and some public buildings with daily access) and footways adjacent to primary and secondary schools and doctors surgeries.
- 7.1.12 Paved cycleways that form part of the carriageway and are located on a Primary, Secondary, Snow Clearance and Contingency networks will be treated as part of these networks when instructed.

7.1.13 Paved cycleways that form part of a footway (footways that are adjacent to carriageways) and are located on the Paved Footway Treatment Network will be treated as part of this network when instructed.

Paved Footpaths/Cyclepaths (remote from carriageways)

7.1.14 With the exception of subways and some identified link footpaths in town centres, no paved footpaths/cyclepaths that are remote from a carriageway will receive precautionary treatment on the forecast of hoar frost and/or ice due to the impracticability and financial implications of doing so.

Council Offices and Public Buildings with Daily Access

7.1.15 The roads leading to Council Offices and some public buildings with daily access will be treated as part of the Road Primary Precautionary Treatment Network.

Public Car Parks

7.1.16 When ice conditions occur on the roof areas and the exposed landing area at Level 2 of the Kennet Centre, and the roof areas at Northbrook multi-storey car parks in Newbury, a risk assessment will be undertaken by the parking staff to determine what action, if any, needs to be taken. Depending on the severity of the conditions some or all of the following actions may be carried out by parking staff:

- (a) Erection of prominent warning signs at the approach points to the exposed areas;
- (b) Sprinkling ice melting granules across the icy surface (these granules release a heat generating chemical when crushed by a passing vehicle). It is not possible to use traditional rock salt in multi-storey car parks as it has a marked deteriorating effect on the waterproof membrane of the roof areas leading to water ingress and a corrosive effect on the steel reinforcement within the structure;
- (c) Closure of the areas completely by use of tapes and cones.

7.1.17 On those occasions when the areas are closed they will be periodically checked during the day and if the ice has melted they will be re-opened for use. The intermediate indoor parking levels of the two multi-storey car parks will not be treated as they are unaffected by icy weather.

7.1.18 Open air surface car parks are not treated unless snow conditions are forecast.

7.2 TREATMENT WHEN SNOW IS FORECAST

Roads

7.2.1 In the event of snow being forecast, the Road Snow Clearance Network (Appendix H) will first receive a treatment of salt/grit (as appropriate) and will then be followed by ploughing/snow clearance.

Paved Footways/Cycleways (adjacent to carriageways)

7.2.2 The Paved Footway Snow Clearance Network (Appendix I) will receive treatment to help prevent the formation of ice and to facilitate the removal of snow.

- 7.2.3 The network comprises primary walking routes (town centres including routes to main transport hubs, Council Offices, Council owned surface car parks and some public buildings with daily access) and footways adjacent to primary and secondary schools and doctors surgeries. Treatment will be managed by the Council's Highway Term Maintenance Contractor and carried out by Culture and Environmental Protection, and Planning and Countryside staff/contractors as resources become available.
- 7.2.4 Paved cycleways that form part of the carriageway and are located on the Snow Clearance network will be treated as part of this network when instructed.
- 7.2.5 Paved cycleways that form part of a footway (footways that are adjacent to carriageways) and are located on the Paved Footway Snow Clearance Network will be treated as part of this network when instructed.

Remote Paved Footpaths/Cyclepaths (remote from carriageways)

- 7.2.6 As detailed in the Council's 'Safer Driving this Winter on West Berkshire Roads' leaflet, the Council does not promote the use of bicycles during periods of hazardous winter weather. With the exception of subways and some identified link footpaths in town centres, remote paved footpath/cyclepaths are not treated when snow conditions are forecast due to the impracticability and financial implications of doing so.

Council Offices and Public Buildings with Daily Access

- 7.2.7 The roads leading to Council Offices and some public buildings with daily public access (Appendix F) will be treated as part of the Road Snow Clearance Network.

Public Surface and Multi-Storey Car Parks, and Newbury Bus Station

- 7.2.8 The roads leading to public surface and multi-storey car parks (Appendix E) will be treated as part of Road Snow Clearance Network (Appendix H). Surface public car parks and Newbury Bus Station will also be treated along with roads where width restrictions prevent mechanical spreading by hand using Culture and Environmental Protection, and Planning and Countryside staff/contractors as resources become available.
- 7.2.9 In the case of multi-storey car parks, when snow conditions occur on the roof areas and the exposed parking area at Level 2 of the Kennet Centre, and the roof areas at Northbrook multi-storey car parks in Newbury, a risk assessment will be undertaken by the parking staff to determine what action, if any, needs to be taken. Depending on the severity of the conditions some or all of the following actions will be carried out by parking staff:
- (a) Erection of prominent warning signs at the approach points to the exposed areas;
 - (b) Sprinkling ice melting granules across the snow surface (these granules release a heat generating chemical when crushed by a passing vehicle). It is not possible to use traditional rock salt in multi-storey car parks as it has a marked deteriorating effect on the waterproof membrane of the roof areas leading to water ingress and a corrosive effect on the steel reinforcement within the structure;
 - (c) Closure of the areas completely by use of tapes and cones.
- 7.2.10 On those occasions when the exposed parking areas are closed they will be periodically checked during the day and if the snow has melted they will be re-opened for use. The intermediate indoor parking levels of the two multi-storey car parks will not be treated as they are unaffected by winter weather.

8 SALT BINS

General

- 8.1 Salt Bins are provided by West Berkshire Council – Council offices and public buildings with daily access and Town and Parish Councils as a means of self-help to enable communities to treat targeted areas of the public highway. West Berkshire Council and the Parish/Town Councils are responsible for the maintenance and refilling of their respective bins. ***Salt bins are not provided for treating private property.***
- 8.2 30 salt bins are owned and maintained by West Berkshire Council (Appendix F) and 449 are owned and maintained by the Parish/Town Council (Appendix G). Unless alternative arrangements are put in place by Town or Parish Councils, salt bins sited on the public highway are expected to remain on the highway on a permanent basis.

Council Owned Salt Bins

- 8.3 Salt bins owned and maintained by West Berkshire Council (Appendix F) are clearly marked with the following information:

This Bin has been provided by West Berkshire Council
**for residents to use to treat local roads and
footways with salt or grit.**

**The Salt or grit must not be used on private
property.**

If this salt bin needs refilling please contact West
Berkshire Council's **Customer Services** on **01635
519080**

Requests to Remove, Move or Add a Salt Bin to the Network

- 8.4 When requested by a Town or Parish Council, the Council can arrange for a salt bin to removed, moved or added to the network on behalf of the Town or Parish Council. The cost for these services are as followed and will be reviewed annually.

Removal of a salt bin: £TBC (includes salt removal, taking up and disposal of the bin and a general tidy up of the verge/footway).

Moving a salt bin to a new location: £45.43 (includes salt removal, taking up and resiting the salt bin, refilling and a general tidy up of the verge/footway).

Providing a new salt bin (170 litres): £259.61 (includes purchase, delivery, first fill of salt/grit and the issue of a license).

- 8.5 Where more than one bin is requested, a discount will be offered to reflect any savings that can be made on supply and delivery.

- 8.6 Any request to remove, move or have a new salt installed must come in writing from the Town or Parish Council Clerk. When the request is to have an existing salt bin moved or for a new salt bin, the suitability of site will be assessed taking into account the following:

- the bin must not cause a nuisance or obstruction (interfere with sight lines etc)
 - there must be sufficient space for the bin and safe access for the purposes of refilling
- 8.7 If approved, a licence will be issued to the Town or Parish Council. The salt bin will be clearly labelled to inform the public that the salt bin is owned and maintained by the Town or Parish Council.
- 8.8 Should a Town or Parish Council wish to purchase salt bins directly from an independent supplier, a formal request should be made by following the above procedure. If approved, the Town or Parish Council will be responsible for making the necessary arrangements with their suppliers for payment and delivery and the filling of the salt bin.
- 8.9 Salt bins owned by Town and Parish Councils will be clearly marked with the following information on stickers provided by The Council:

This Bin has been provided by the Town/Parish Council ***for residents to use to treat local roads and footways with salt or grit.***

The Salt or grit must not be used on private property.

If this salt bin needs refilling please contact the local Town/Parish Council

- 8.10 West Berkshire Council will be responsible for maintaining an electronic inventory of salt bins across the district and reserves the right to remove any salt bin from the highway network.

Refilling

- 8.11 With the exception of the salt bins owned by West Berkshire Council (Appendix F) requests to refill a salt bin should be directed to the appropriate Town or Parish Council.
- 8.12 The Council can provide a refilling service when requested by a Town or Parish Council. The cost of a refill is £99.72 and will be reviewed annually.

Advertising

- 8.12 Should a Town or Parish Council wish to use new bins for advertising, such adverts may require planning permission. The Town or Parish Council should be directed to the Council's website/Planning service.

9. OPERATIONAL INFORMATION

Response Time

- 9.1 Throughout the Winter Service season the Contractor will commence and complete treatment within 3 hours from the start time as specified by the Winter Service Duty Officer.

Salt and Stocks

- 9.2 At temperatures below minus 10°C, salt no longer acts as an efficient de-icer, however, in Britain, with rare exceptions, the temperature during periods of icing or snowfall is usually above minus 3°C making salt the most commonly used chemical in the UK.
- 9.3 Rock salt complying with BS 3247 shall be supplied by the Council's Term Maintenance Contractor. The salt shall be either stored in a purpose-built barn or in the open if covered by a proprietary sheeting system. Current salt stocks are summarised below.

Depot	Stock Capacity	Pre-Winter Stock	Minimum Stock Level
Chieveley	2500 tonnes	2500 tonnes	500 tonnes

- 9.4 Salt stocks will be in place by 30 September each year and maintained in accordance with the requirements of the Term Contract for Highways and Bridgeworks.
- 9.5 Salt chemical composition is to be established by the Contractor through testing in accordance with BS 3247 (Part 1).
- 9.6 The rates of spread shown below will be used for the listed forecast conditions. For other forecast conditions, the Winter Service Duty Officer will liaise with the Duty Forecaster and the Term Contractor in finalising a rate of spread.

- 9.7 The Council reserves the right to use a salt/grit mix as circumstances dictate, particularly during snow conditions.

	Weather Condition	Spread Rate (g/m ²)	Comments
Precautionary Treatment when hoar frost and/or ice is are forecast	Forecast of hoar frost	10	6mm salt
	Forecast of hoar frost on stone mastic asphalt type surfaces.	20	6mm salt
	Forecast of Ice	10 - 40	6mm salt
Treatment prior to and after snowfall.	Prior to snowfall	20	6mm salt
	Prior to snowfall on porous type surfaces during and after snowfall during snowfall	40	6mm salt
	After snowfall	10	Every 25mm of snow
Compacted Snow	Hard compacted snow and ice at air temperatures down to - 5°C	20	50/50 salt/single sized abrasive aggregate not exceeding 6 mm or 5 mm sharp sand
	Hard compacted snow and ice at air temperatures below - 5°C	10	Single sized abrasive aggregate not exceeding 6 mm or 5 mm sharp sand
Contingency Network	Salt shortage/rationing	10	6mm salt

Snow Clearance

- 9.8 When snow conditions are forecast with a high degree of confidence, the Winter Service Duty Officer will instruct the Term Contractor to prepare the vehicles for snow clearance and fit ploughs.
- 9.9 The Winter Service Duty Officer will liaise with the Council's Civil Contingency Manager and if appropriate, the Civil Contingency Manager will arrange for the Council's Emergency Operations Centre (EOC) to be opened and manned until conditions abate. Once opened, all incoming calls relating to winter service operations will be directed to the EOC.
- 9.10 The Winter Service Duty Officer may instruct the Term Contractor to patrol the Road Snow Clearance Network to monitor the weather / level of snowfall / snow clearance operation and will liaise with the Duty Forecaster to obtain accurate forecast information. The Winter Service Duty Officer will instruct the Highway Term Contractor to treat (precautionary treatment and snow clearance) the Road Snow Clearance Network as appropriate using the forecast information provided.
- 9.11 The Winter Service Duty Officer will ensure that all appropriate records of activities and actions taken by Highways in managing the snow clearance operation are electronically stored. Records will also include the activities and actions of the Planning and Countryside service and the Term Contractor. These records are essential in dealing with claims and making bids for additional funding for winter damage repairs.

- 9.12 Following the thaw, the Snow Clearance Treatment Networks will be inspected for damage. Details of any damage along with repair estimates will be passed to the Highway Manager.

Wet Spots

- 9.13 Where the Council has been made aware of water being deposited on the highway, the Winter Service Manager will inform the Street Works team if a utility company is involved and arrange for the site to be treated with salt and arrange for ice warning signs to be erected. A record of the wet spot will be recorded in the 'Wet Spot' register along with the actions taken.

Possible causes of wet spots may include the following:

- direct result of an unforeseen incident (fire, road traffic accident etc)
- burst water main
- water issuing from apparatus
- spring

Records

- 9.14 The Winter Service Manager will hold the following details:

- Road Primary Treatment Network
- Road Secondary Treatment Network
- Contingency Treatment Network
- Footway/Cycleway Treatment Network
- Snow Clearance Network
- Footway/Cycleway Snow Clearance Network
- Route plans where applicable
- Database of salt bin locations
- Roads having 'porous' surface courses
- Wet Spot Register

10. PLANT, VEHICLES AND OPERATORS

10.1 A schedule of plant and vehicles owned by the Contractor is listed below:

Chieveley:	2 no	Econ purpose built 9 m ³ gritters
	7 no	Econ purpose built 6 m ³ gritters
	1 no	Econ 3.5 tonne transit pickup with 1.2 m ³ gritter (weight restricted bridges)
	10 no	Snowploughs
	1 no	JCB tele handler loading shovel
	1 no	JCB backhoe excavator
	2 no	7.5 tonne tipper lorries for hand spreading
	5 no	3.5 tonne tipper lorries for hand spreading
	3 no	Footpath salt spreaders (owned by West Berkshire District Council)

10.2 Details of the treatment routes, information from Network Rail and any other relevant documentation will be kept in each vehicle.

10.3 To ensure effective and even salt distribution and the correct rate of spread, the spreading equipment will be calibrated annually and the controls marked accordingly for spreads of 10g/m² for normal pre-salting and 20g/m² and 40g/m² for more severe conditions by the Contractor.

10.4 All gritters are fitted with a GPS vehicle tracking system and the following vehicle tracking information is recorded:

- (i) Speed
- (ii) Width of spread
- (iii) Spreading rate
- (iv) Start and finish time
- (v) Lengths of gritting and free-running

Operator Training

10.5 All gritter drivers must hold a current City & Guild 6159 with the following units:

- (1) 080 Winter Service Operations Health & Safety
- (2) 013 Prepare and operate winter service vehicles over 7500kg LGV
- (3) 313 Plough angle blade / Vee blade.

11. OPERATIONAL COMMUNICATIONS

- 11.1 All winter service vehicles are in contact with the Contractor's depot via 'hands free' mobile phones in order that instructions can be passed and current information relayed back from the vehicles.
- 11.2 The Term Contractor is required to provide the Council with a list of the telephone numbers that are to be used prior to the commencement of winter service operations and not later than 14 October 2016.
- 11.3 The Term Contractor is required to provide the Council with a copy of the Contractor's Winter Service Daily Action Report by 9:30 am the next working day (refer to Appendix N). This records details of each vehicle, driver, route number, start time, finish time, rate of spread and any other remarks.

12. WEATHER FORECASTS

12.1 During the winter period, West Berkshire Council will use the 'RoadCast' forecasting service provided by MeteoGroup, from their UK Headquarters in Victoria, London. The information received each day includes the following:

- (i) detailed 24-hour forecast
- (ii) evening update forecast
- (iii) site specific temperature graphs (three sites)
- (iv) early morning summary and preliminary forecast
- (v) 2 - 5 day forecast

12.2 The 24-hour forecast is received at 12:00 hours each afternoon. The main features of this forecast are as follows:

(i) Readiness Colour

This is based on the traffic light system of colours; green, amber or red. The definitions are:

Green No hazard expected.

Amber RST's below zero but road dry
RST between 0 and +1 °C (inclusive)
RST > +1 °C and < +2 °C with low confidence Red
RST's below zero with a hazard.

Red RST's below zero with a hazard.

(ii) Hazards

This section includes the hazards causing the red or amber readiness colours as well as other weather hazards such as heavy rain, high winds or fog, which could accompany a green readiness colour. A qualifying time will be given for all hazards.

(iii) Minimum Temperatures

Minimum air and road temperatures for urban and rural areas are provided.

(iv) Confidence Statements

This consists of high, moderate or low confidence for each of the hazards described above, together with a qualifying statement. For example: low confidence regarding extent of showers this evening but high regarding road temperatures falling below zero.

(v) 24 hour Weather Summary

This is a general summary of the forecast for the period from midday to midday. An example of a typical forecast is shown on the following page.

12.3 At 18:00 hours each evening, a forecast update is issued by MeteoGroup and can be viewed by the Winter Service Duty Officer at home on a portable laptop computer. ***If further information is required, the Winter Service Duty Officer can make use of the 24 hour consultancy service provided by MeteoGroup.***

Example of 24 Hour Summary.

24 HOUR SUMMARY FORECAST FOR BERKSHIRE FORECAST FOR MONDAY 11/10/2010 12:00 TO TUESDAY 12/10/2010 12:00

Headline	RSTS ABOVE ZERO
Confidence	HIGH

General Synopsis

This afternoon, it will be dry and bright with long periods of sunshine. Tonight, dry with the chance of some clearer breaks at first, but mist and low cloud will become extensive. Tomorrow morning, dry but with cloudy skies. RSTs above zero throughout the period.

Hazards and Temperatures

Berkshire		
Readiness Colour	GREEN	
Hoar Frost	N	HIGH
Ice	N	HIGH
Snow	N	HIGH
Snow Level (m)	N/A	
Drifting	N	HIGH
Heavy Rain	N	HIGH
Fog	N	HIGH
Freezing Rain	N	HIGH
Minimum Air Temp	7.5	
Bridgedeck min temp	9.0	
Urban Min RST	10.0	
Urban RST period < 0	N	
Min RST	9.0	
RST period < 0	N	

Snow Summary - None

Wind Table

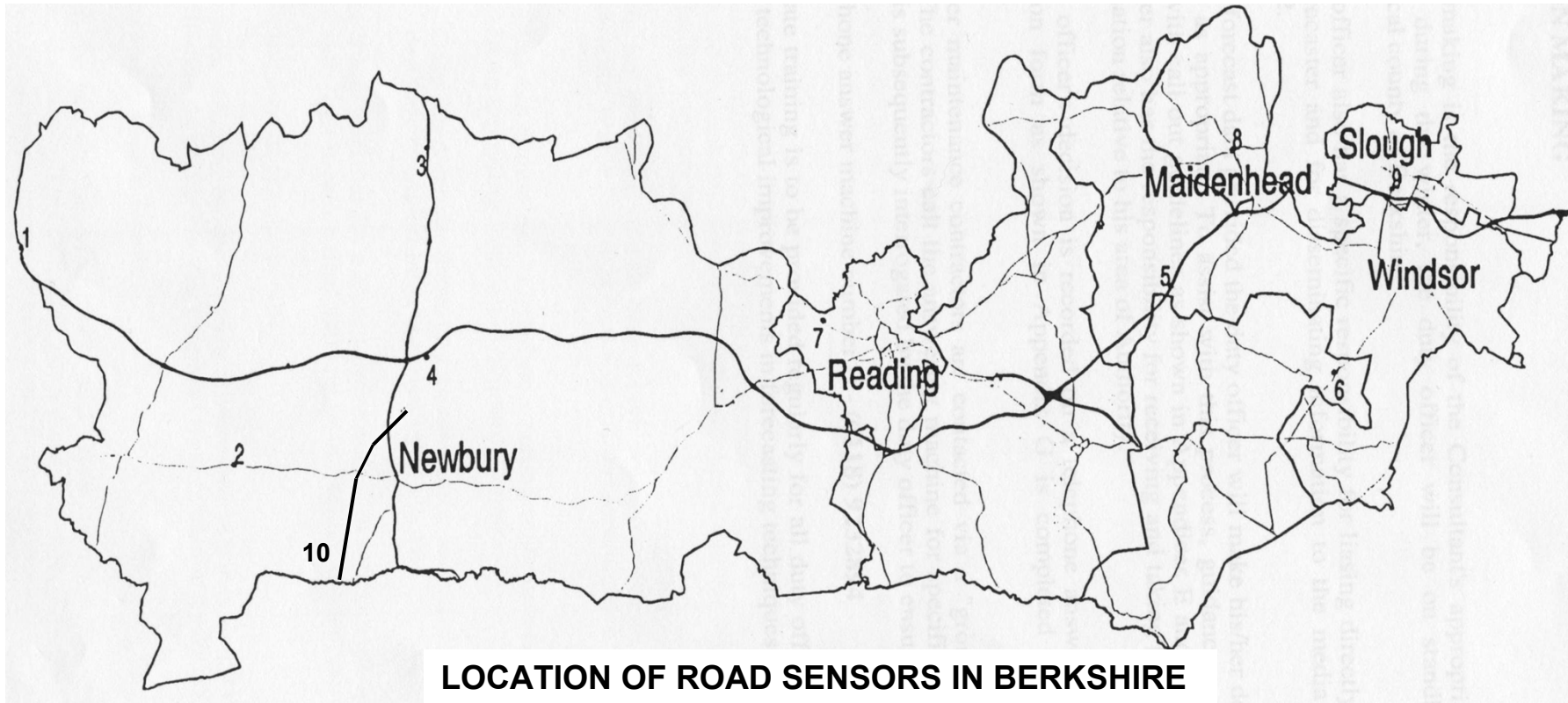
Domains	Mon 11/10 12-18				Mon 11/10 18-00				Tue 12/10 00-06				Tue 12/10 06-12			
	Dir	Avg mph	Exp Gust mph	Ext Gust mph	Dir	Avg mph	Exp Gust mph	Ext Gust mph	Dir	Avg mph	Exp Gust mph	Ext Gust mph	Dir	Avg mph	Exp Gust mph	Ext Gust mph
Berkshire County Wide	N E	13	28	31	N E	11	22	25	N E	9	20	23	N E	9	20	24

MeteoGroup UK.	
Forecaster	NAME
Produced at	11-10-2010 10:38:39 BST
Issued at	11-10-2010 12:31:12 BST
Telephone	
Fax	

13. THERMAL MAPPING AND ICE PREDICTION

West Berkshire Roads

- 13.1 Vaisala Ltd has undertaken thermal mapping across Berkshire, a technique for measuring and analysing the thermal characteristics of road surfaces. It is normally carried out under three different weather conditions, one of which is the extreme condition or night when skies are clear and winds light. The other weather conditions are known as intermediate and damped. Under extreme conditions, the maximum variation in road surface temperature is produced, this, together with the coldest absolute temperatures, leads to potentially hazardous road conditions. Under such conditions it is most important to be able to accurately predict road surface temperatures.
- 13.2 The information yielded from thermal mapping is used in conjunction with site specific forecasts to predict accurately the minimum temperature of road surfaces across the road network. This allows accurate decisions to be made not only about whether to salt or not but whether to salt only those roads that require treatment.
- 13.3 Thermal mapping has been used to produce data, which allows the pre-salting routes to be analysed objectively and to ensure the optimum location of road surface and atmospheric condition sensors. Ten sensor sites have been installed on the network locations shown on the following page.
- 13.4 Annual calibration checks on sensors are undertaken by the equipment supplier(s).
- 13.5 Every hour, information from these sensors is fed automatically into the Central Processing Unit at Vaisala's offices in Birmingham. The parameters recorded are, air temperature, humidity, precipitation, wind speed and direction, road surface condition (wet or dry) and depth temperature. Forecasts are produced by MeteoGroup UK based on this information. These forecasts when used in conjunction with the thermal mapping data forms one of the most sophisticated ice prediction systems in the UK.
- 13.6 West Berkshire Council acts as lead authority on behalf of the other Berkshire Unitary Authorities in respect of the co-ordination and procurement of contracts with Vaisala and MeteoGroup UK Ltd.
- 13.7 All six Berkshire Unitary Authorities have access to the ice detection equipment described above.



- | | |
|--------------------|------------------------|
| 1. M4 Membury | 6. A332 Windsor |
| 2. A4 Halfway | 7. A329 Reading |
| 3. A34 East Ilsley | 8. A4 Bad Godesberg |
| 4. M4 Chieveley | 9. A355 Tuns Lane |
| 5. M4 Shurlock Row | 10. A34 Newbury Bypass |

14. MEDIA COMMUNICATIONS

- 14.1 The Winter Service Duty Officer will notify the relevant organisations via the Message Board on the Metegroup's Winter Service web portal when a decision to treat has been made confirming what actions have been taken.
- 14.2 During periods of prolonged adverse weather and snowfall, the Winter Service Duty Officer shall liaise with the Council's Public Relations team who will provide relevant information to all interested organisations.
- 14.3 Prior to the onset of winter, details of the Council's Winter Service Plan will be published in the local press and made available through the Council's web site: www.westberks.gov.uk
- 14.4 A leaflet called 'Safer Driving This Winter on West Berkshire Roads' will be produced which shows the primary salting network and provides winter driving tips. This leaflet is available from Council offices and libraries as well as being displayed on the Council's web page (www.westberks.gov.uk)

15. PERFORMANCE MONITORING AND AUDIT

- 15.1 The Winter Service provided by West Berkshire Council is carried out by the Council’s Highway Term Maintenance Contractor Volker Highways.
- 15.2 Performance of the Contractor in relation to response and treatment times shall be monitored to ensure satisfactory service delivery and contract compliance in accordance with the following Contractual requirements.

	Performance Criteria	Frequency
1.	Winter Service Operations: Start Time Finish Time	Weekly by Winter Service Manager
2.	Winter Service Audit	At times agreed by the Winter Service Manager

- 15.3 The Contractor’s performance will be reported annually as part of the Highway Winter Service Plan approval process.
- 15.4 Throughout the Winter Service season and where reasonably practicable to do so, the Winter Service Manager will arrange for ad hoc audits to take place. The audit will consist of West Berkshire Council staff following a gritter on an actual salting run to record and verify the following:
 - (i) Time vehicle left depot.
 - (ii) Vehicle following agreed route.
 - (iii) Vehicle travelling at appropriate speed whilst salting.
 - (iv) Ensure vehicle driver stops to check spreading equipment is working correctly.
 - (v) Check that salt is being spread.
 - (vi) Time vehicle arrives back in depot.
- 15.5 Following an audit, a formal meeting will be held with the Contractor to discuss their performance, results and any urgent actions required to achieve the contract standards.

16. OTHER SEVERE / ADVERSE WEATHER

16.1 Please refer to the Council Severe Weather Plan.

17. BUDGETS

17.1 West Berkshire's 2016/2017 budget for winter service allows for the following:

- (i) Maintenance, repair and calibration of communication and ice prediction equipment
- (ii) Fixed costs of standby arrangements
- (iii) 50 precautionary salting runs on the Road Primary Treatment Network
- (iv) Weather forecasts and ice prediction service
- (v) Provision and maintenance of salt bins

17.2 It should be noted that whilst snow clearing operations will be undertaken in accordance with the Winter Service Plan and as instructed by the Winter Service Manager, there is no specific budget for this work. However, a report will be prepared and submitted to the appropriate committees as soon as possible after snow clearing has been completed in order for any budgetary pressures and adjustments to be discussed and agreed.

18. REFERENCES

Document	Publisher	First Published Date
Well Maintained Highways – Code of Practice for Highway Maintenance Management, July 2005, as amended November 2011	The Stationery Office	July 2005
Lessons Learned from the Severe Weather February 2009	UK Roads Liaison Group	July 2009
The Quarmby Report: The Resilience of Englan’s Transport Systems in Winter, Interim Report, July 2010	HMSO	July 2010

19. CIRCULATION LIST & CONTACTS

19.1 Adjacent Authorities

Council	Address	Director, General Manager or Head of Service	Winter Service Manager/Contact
Hampshire County Council	Environment Department The Castle Winchester Hampshire SO23 8UD Tel: 01962 841841		
Oxfordshire County Council	Oxfordshire County Council Environment and Economy Speedwell House Speedwell Street Oxford OX1 1NE Tel: 01865 815700		
Wiltshire Council	Environment Services County Hall Bythesea Road Trowbridge Wiltshire BA14 8JD Tel: 01225 713000		

19.1 Adjacent Authorities (cont'd)

Council	Address	Director, General Manager or Head of Service	Winter Service Manager/Contact
Reading Borough Council	4 th Floor, 2/4 Darwin Close, Reading RG2 0RB Tel: 01189 390900		
Wokingham District Council	Shute End PO Box 153 Wokingham Berkshire RG40 1WL Tel: 01189 746000		
West Berkshire Council	Council Offices Faraday Road Newbury RG14 2AF Tel: 01635 42400		

19.2 Highways England

Highways England's Agents	Enterprise Mouchel Jays Close Viables Business Park Basingstoke Hampshire RG22 4BS	
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19.3 Emergency Services

Emergency Service	Address	Contacts
Thames Valley Police	Colwell Drive Abingdon OX14 1AU	
South Central Ambulance	44 Finchampstead Road Wokingham Berkshire RG40 2NN	
Berkshire Fire and Rescue	103 Dee Road Reading RG30 4FS	

19.4 Media

BBC Radio Berkshire	Peppard Road Caversham Park Reading Berkshire RG4 8TZ	
The Breeze Newbury	Parkway Newbury Berkshire RG14 1AY	
Heart (Berkshire & North Hampshire)	The Filberts The Chase Calcot Reading, RG31 7RB	

19.5 Travel Organisations

RAC	Public Affairs Dept. 1 Forest Road Feltham TW13 7RR	
The AA Motoring Trust	16 th Floor Fanum House Basingview Basingstoke Hampshire RG21 4EA	
Network Rail	Floor 3 Sussex House 6 The Forbury Reading Berkshire RG1 3EJ	