BEAR Scotland

M80 Stepps to Haggs DBFO Contract

Winter Service Plan

M80 STEPPS TO HAGGS DBFO CONTRACT

Winter Service Plan

1 October 2013 to 15 May 2014

Controlled Copy No……

WINTER SERVICE PLAN – INDEX

DOCUMENT APPROVAL/AUTHORISATION

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8	Various (on rota)	Duty Supervisor (Chryston Depot)	BEAR Scotland Ltd
9	Various (on rota)	Duty Supervisor (Burghmuir Depot)	BEAR Scotland Ltd
10	Various (on rota)	Duty Supervisor (Bilston Glen Depot)	BEAR Scotland Ltd
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1. INTRODUCTION

This Winter Service Plan has been prepared by BEAR Scotland Ltd. acting in their role as O&M Work Contractor to Highway Management (Scotland) Ltd., The Company otherwise known as HMG. Where references to BEAR are made within this document, these carry the same meaning as references to The Company or HMG.

BEAR Scotland Limited is a Scottish Registered company with three shareholders (Jacobs, Breedon and Eurovia), who will carry out the Operation and Maintenance of the M80 O&M Works Site between Stepps and Haggs on behalf of Highway Management (Scotland) Limited.

Whilst the Winter Service Plan is independent from the Emergency Response Plan, the two documents must be read in conjunction with each other to ensure the appropriate delivery of both the Winter and Emergency Response Services. This Winter Service Plan is in accordance with Schedule 4, Part 2, Appendices C and D and Schedule 4 Part 5 Series 2801AR to 2807AR of the O&M Works Contract.

1.1 Winter Service Period

The Winter Service Period for the M80 O&M Works Site will be from 1st October 2013 to 15th May 2014. If winter conditions shall occur out with this Winter Service Period BEAR shall provide and maintain the Winter Service in accordance with Schedule 4 Part 2 for the duration of such winter conditions. BEAR shall confirm the activation of this requirement with the Scottish Ministers representatives.

2. MANAGEMENT ARRANGEMENTS

2.1 Winter Service Manager

2.1.1 Name

The Winter Service Manager for the M80 O&M Works Site will be Ricky Anderson.

2.1.2 Experience

Ricky has previous years of experience in providing the winter maintenance service within the trunk road environment on the North West and South East Units, and has been involved in delivering Winter Service Operations within the M80 Stepps to Haggs DBFO project since the commencement of Restricted Services in 2009.

2.1.3 Responsibilities

The Winter Service Manager is responsible for producing the Winter Service Plan for approval by the Scottish Ministers. He is then responsible for the operation, review and development of that Plan throughout the winter season, thus ensuring the M80 O&M Works Site Company fully discharges its responsibilities under the contract.

The Winter Service Manager has overall responsibility for winter maintenance activities including but not limited to:

- collection and management of weather data
- maintaining salt and glycol stock levels and their storage facilities
- achieving response times for precautionary treatment and snow clearance
- plant
- communications
- the ice prediction and weather radar software systems
- training of staff and operatives
- preparation and updating of rotas for Duty staff
- maintaining electronic and manual records
- providing winter service reports as required by Sch.4 Pt.2 Cl.3.2.4 (v)
- liaison with third parties
- Assist the Scottish Ministers in the production of Winter Service publicity leaflet if required
- Liaising with Transport Scotland's MART.

2.2 Winter Service Duty Staff

2.2.1 Winter Service Duty Managers

The Winter Service Manager will be supported by seven Winter Service Duty Managers based in the South East Unit, working a two shift pattern on a rota basis. These posts are additional to contract requirements but are an integral part of the proposed service as they provide immediate support and guidance to the Winter Service Duty Officers, allowing them to process the information being received whilst the Winter Service Duty Managers interpret the weather forecast, make decisions on treatment and prepare the Daily Action Plan.

There will be seven nominated Winter Service Duty Managers:

- Steve Ervine
- Kevin Campbell Jnr.
- Gordon Gill

- Julian Cruft
- Mark Barrass
- Finnbar Scullion
- David Paton

The Winter Service Duty Manager can be contacted on the Winter Control Room number provided in 2.3.2.

In addition, Ricky Anderson, Alasdair Allen, David Paton, Neil Lang and Tommy Deans are available on a rotational basis to provide advice to staff involved in winter and emergency operations on the M80 O&M Works Site.

2.2.2 Winter Service Duty Officers

The Winter Service Duty Officer will be available on a 24/7 basis throughout their week on duty. Their primary responsibility is to provide support to the Winter Service Duty Manager and ensure that actions are completed within the required timescales.

There will be five nominated Winter Service Duty Officers:

- Mattie Kerr
- Alex Stewart
- George Vint
- Mark Lister
- Marc Mitchell

2.2.3 Winter Service Duty Controllers

The Winter Service Duty Controllers will work on a rota basis in the Winter Control Room located in our Perth Office. There will be one Winter Service Duty Controller responsible for the M80 O&M Works Site at all times.

The Winter Service Duty Controllers work on a 24/7 basis throughout the Winter Service Period and will monitor the system, complete all records as required and remain in contact with all winter drivers ensuring any changes to road conditions are reported.

The nominated Winter Service Duty Controllers for the M80 O&M Works Site are:

- Kenny Dallas
- Angela McGregor
- Linda Morrison

- Caroline Manz
- Scott Ramsay

Additional Winter Control Rooms will be set up at Bilston Glen and Chryston Depots if the Winter Service Duty Controllers based in Perth require assistance. Alternatively, additional resources will assist at the Perth Control Room.

2.2.4 Qualifications

All of the Winter Service Duty Managers, Winter Service Duty Officers and Winter Service Duty Controllers named in 2.2.1, 2.2.2 and 2.2.3 are fully trained in basic road meteorology including the use and interpretation of ice prediction systems and the use of thermal mapping.

2.2.5 Experience

All Winter Service Duty Managers will have previous experience of monitoring the road sensor system and making decisions on treatments, resulting from the receipt of the forecast information from the supplier. All newly trained Winter Service Duty Managers will be mentored by the Winter Service Manager or an experienced Winter Service Duty Manager until a detailed knowledge of particular conditions of the M80 O&M Works Site has been gained.

2.2.6 Responsibilities

Winter Service Duty Manager: the role of the Winter Service Duty Manager is primarily to interpret the daily forecast received, liaise with the weather forecaster, decide on the required treatment and subsequently prepare the Daily Action Plan. Where it is not possible to predict adverse conditions, the Winter Service Duty Manager will be responsible for ensuring that the reactive requirements of the contract are implemented within the required timescales.

The Winter Service Duty Manager has the ability to mobilise additional support for the Winter Control Room if required and arrange resources with MART.

Winter Service Duty Officer: the primary role of the Winter Service Duty Officer is to receive the Daily Action Plan from the Winter Service Duty Manager, contact and relay this information clearly to all Winter Drivers, and ensure the contractual requirements are met in relation to response and treatment times. The Winter Service Duty Officer will also manage each winter treatment operation from their relevant depot, ensuring all records are completed and stored electronically in the required shared drive, giving access to the Scottish Ministers via BEAR Scotland offices and depots, and that hard copies are passed to Perth and Chryston for filing.

Winter Service Duty Controller: the Winter Service Duty Controller will be based in BEAR Scotland's Winter Control Room at Perth, with the primary responsibility of monitoring the ice prediction system and notifying the Winter Service Duty Manager of any changes to the initial weather forecast. The Winter Service Duty Controller is allowed to escalate any proposed action but cannot reduce this without prior agreement with the Winter Service Duty Manager. The Winter Service Duty Controller will be available to assist the Winter Service Duty Officer at all times, particularly where there is a high level of activity due to snow or other adverse conditions. The Winter Service Duty Controller will have the authority to call in the Winter Service Duty Manager as they deem necessary.

2.3 Monitoring Arrangements

2.3.1 Monitoring Arrangements

System monitoring will be carried out on a rota basis by our dedicated Winter Service Duty Controllers based from the Winter Control Room in BEAR Scotland's Perth Office. The Winter Service Duty Controller will monitor road conditions and direct resources through the Winter Service Duty Officer as required, treating the carriageway to keep it free from snow and ice. They will monitor road conditions overnight from the Winter Control Room and assess conditions relative to the original forecast received, reporting any significant changes to the Winter Service Duty Manager.

As a fully trained member of staff, the Winter Service Duty Controller on night shift has the authority to escalate any decision made on treatment, however they cannot reduce this level of treatment without first gaining the agreement of the Winter Service Duty Manager.

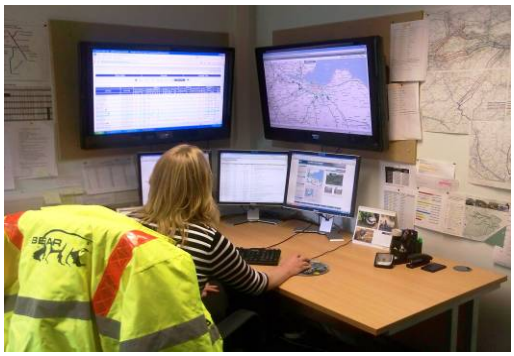
The following aids will be used to assist in this process:

- contact with expert weather forecaster provider including "change triggers"
- feedback from inspectors during normal working hours
- monitoring of ice sensors
- monitoring RST trend against forecast
- use of ice station & Traffic Scotland cameras
- weather radar
- thermal maps where available
- communications from external parties
- mobile road surface temperature gauges on patrol and frontline vehicles.

The Winter Service Duty Controller will have direct access to the Winter Service Duty Managers and Winter Service Duty Officers at all times via dedicated mobile telephone numbers. In the event

of immediate adverse conditions, whilst it is the responsibility of the Winter Service Duty Officer, the Winter Service Duty Officer and / or the Winter Service Duty Controller will call out the relevant stand-by Winter Drivers directly, instructing them to undertake specified reactive treatment.

2.3.2 Winter Control Room



A joint M80 O&M Works Site / South East / North East / North West Winter Control Room is based in BEAR Scotland's Perth Office and will be manned on a rota basis by a team of Winter Service Duty Controllers.

The Winter Control Room will operate 24 hours per day, 7 days per week throughout the year, with two members of staff on duty at all times. One of these Winter Service Duty Controllers shall be responsible for the M80 O&M Works Site.

The following mobile telephone number is answered by the Control Room staff:

07894789395

The Winter Control Room shall have easy access to all relevant contact telephone numbers as well as access to winter maintenance systems such as Vaisala Bureau, Masternaut (BEAR vehicles), communications log database, thermal maps and weather radar.

During periods of high operational activity on the network (snow clearance, extensive precautionary treatment etc.) the Winter Duty Controllers will be assisted by the Winter Duty Officer and Winter Duty Manager as required. This decision will be taken jointly by the Winter Service Duty Officer and Winter Service Duty Manager as determined by weather conditions. See also 2.2.6.

There will also be a dedicated telephone line for the Police Scotland within the Winter Control Room. This telephone number, only issued to Police Scotland, will allow direct contact at all times between the Police and our Winter Service Duty Manager.

2.4 Personnel Resources

The resources detailed below will be the minimum numbers involved in delivering the Winter Service for the M80 Stepps to Haggs O&M Works Site:

- 1 No. Winter Service Manager, supported by
- 7 No. Winter Service Duty Managers
- 5 No. Winter Service Duty Controllers

- 5 No. Winter Service Duty Officers
- 8 No. Winter Drivers
- 2 No. Winter Patrol Drivers

2.5 Call-Out Arrangements

2.5.1 Call-out arrangements during normal working hours

A winter roster will be prepared at the beginning of the Winter Service Period for staff and operatives involved in the Winter Service for that period. The rota will include contact details for all personnel involved and controlled copies will be issued to each individual prior to the commencement of the Winter Service Period.

Any changes to the rota will be communicated to the Winter Service Duty Controllers for that week by the Winter Service Duty Officer via email, confirming changes and any revised contact details.

During normal working hours it will be the responsibility of the Winter Service Duty Officer to ensure that a clear line of communication is kept to all key personnel involved in providing the Winter Service for that week.

It is not anticipated that there will be a significant number of call-outs during working hours from the beginning of November until the end of March. A shift system will be in place making Winter Drivers immediately available on the O&M Works Site during the normal working week. In this context, the normal working week is defined as all hours Monday to Friday. From 1st October to 31st October 2013 and from 1st April to 15th May 2014, the normal working day will be 08:00 to 16:00 hours Monday to Friday.

2.5.2 Call-out arrangements out with normal working hours

It is the role of the Winter Service Duty Officer and Winter Service Duty Controller to ensure and confirm that the appropriate Winter Drivers are contacted and advised of the required winter action treatment. The personnel on the rota at any point will have to be available at all times to commence treatment on the carriageway within 60 minutes of being contacted.

2.5.3 Contact arrangements during normal working hours

Each individual involved in providing the Winter Service shall be issued with a mobile phone to allow easy contact. When Winter Drivers are rostered for any given week, cognisance of this will be given when planning of their normal daily duties, ensuring that drivers can still have the ability to respond to any call, to carry out a Winter Service action at short notice within the contractual response times.

2.5.4 Contact arrangements out with normal working hours

A standby rota will be prepared, detailing which individuals will be utilised in the event of Winter Service action being required. Telephone contact numbers will be available for all individuals and will be held on the BEAR Scotland Intranet.

2.5.5 Mobilisation times

BEAR Scotland's Chryston Depot has been sited in a location which easily accesses the M80 O&M Works Site gritting routes, and which is easily accessed by all Winter Drivers. This will ensure that Winter Drivers are consistently able to access the start of each precautionary treatment within one hour of a call from their home. To assist in the speed of access to the gritting routes, spreaders will be pre-loaded on any night where an action is a possibility.

2.6 Communications Equipment

Good communication systems are essential for effective implementation of the Winter Service, and the following systems will be adopted:

- Telecommunications – land line and cellular GSM
- Satellite tracking of BEAR Scotland vehicles
- Email
- Airwave system on Winter Patrol vehicles

All BEAR Scotland depots are contactable by both land line telephone and facsimile. In addition, all Winter Service Duty Managers, Winter Service Duty Officers, prime plant and winter maintenance vehicles will have individual GSM mobile telephones so that they can be contacted at all times. In the case of maintenance vehicles, hands-free mobile phones are fitted.

BEAR Scotland vehicles are fitted with an integrated satellite tracking system to deliver our communications needs and management system, and produce an auditable trail for the company.

BEAR Scotland implements a policy whereby all Duty Managers, Controllers, Officers and Supervisors will have a desktop personal computer or a laptop computer and will have their own individual email address. This is carried out by a Wide Area Network system in which the various secondary depots are linked by ISDN or analogue lines to the Central Office, which is in turn linked by Kilo stream or ISDN lines to the main central servers, which control the IT network.

Information and data can be exchanged quickly with our internal and external customers, Emergency Services, Statutory Authorities and between our shareholders utilising Microsoft Outlook email software.

2.7 Training for Managers and Other Staff

2.7.1 Details of previous training

All our current Winter Service Duty Managers and Winter Service Duty Controllers have been trained in Basic Road Meteorology and the use of Ice Prediction Systems. All our current Winter Drivers have been trained to SVQ/City & Guilds level or equivalent in winter maintenance.

2.7.2 Details of proposed training

Prior to the commencement of the winter season a training programme shall be carried out for all personnel involved in providing the Winter Service, which shall include the following:

- Refresher training for Winter Service Duty Managers and Officers on decisions, communication, contract requirements etc. provided by the Winter Service Manager.
- Seminar to Winter Drivers detailing routes, contract requirements, response times, treatment times, communication, health & safety, areas requiring special attention and the importance of providing good quality service. This again will be provided by the Winter Service Manager.
- New recruits into providing the Winter Service shall be fully trained prior to any involvement in providing the Winter Service. All Winter Drivers shall be formally trained in the safer operation of winter maintenance equipment, based on the standards set in SVQ/ City & Guilds level or equivalent in winter maintenance.
- Basic Road Meteorology training, including the use and interpretation of ice prediction systems for new Winter Service Duty Managers and Controllers, as well as refresher training, where required, for existing Winter Service Duty Managers and Controllers.
- The Winter Service Duty Controllers have received external training entitled “Control Room Development Programme”, which covers areas such as effective communication, record keeping, dealing with people, handling complaints and problem solving.
- The Winter Service Duty Controllers have undergone an internal training programme including route tours, depot visits and use of the winter and emergency computer systems.

3. WEATHER FORECASTING

3.1 Purpose

It is the intention that the weather forecasts, which are provided by expert meteorologists, give the personnel involved in providing the winter service an accurate indication of forthcoming weather conditions, allowing them to prepare a winter action plan which shall anticipate prevailing weather

conditions and giving sufficient time in which to pre-treat the carriageway prior to the onset of snow or ice.

3.2 Methodology

The method used to produce both the short and long range weather forecasts is via a combination of a number of weather models. These models combine energy balance techniques with current and historic site specific information to provide the most accurate possible forecasts of future road conditions.

The road model forecasts can be updated as frequently as necessary using actual data from road sensors and data from comprehensive meteorological databases, which is monitored and updated by the Winter Service Duty Controllers and Winter Service Duty Managers 24 hours a day.

3.3 Weather Forecasting Service

An expert weather forecasting service will be provided by an established UK road forecast provider, namely MeteoGroup UK. MeteoGroup UK is the largest independent forecast provider in the United Kingdom and has extensive experience of the provision of this service in the Scottish Local Authority and Trunk Road environment. The service will consist of the provision of the following:

- 24 hour forecast text
- 2-5 day text forecast
- 24 hour forecast graphs for each forecast outstation within the unit
- Evening updates to both 24 hour text & forecast graphs
- Forecast consultancy/advisory service (24 hours a day, seven days a week)
- Time step thermal maps where available.

The above will allow the Winter Service Duty Manager to prepare a daily winter action plan by 15:00 hours each day, advising of all carriageway pre-treatments to be carried out for that day.

The MeteoGroup Duty Forecaster can be contacted by telephone on a 24/7 basis by calling **08456030563** and asking to speak to the Duty Forecaster for BEAR Scotland's O&M Works Site Contract.

3.3.1 Climatic Domains

There will be one climatic domain exclusive to the M80 O&M Works Site, which will be driven by the following forecast outstation:

- M80 Cumbernauld

3.3.2 Weather Radar

Weather radar will be used via an internet based site, which gives a short range forecast up to 3 hours in advance, and with the facility to time-step the movement of the prevailing weather conditions. The radar will help to improve the accuracy of assessing the timing, nature and intensity of precipitation, particularly snowfall. The weather radar is part of the Duty Managers decision making process and is subsequently monitored by the Control Room staff.

3.3.3 Ice sensors and weather forecast sites

The M80 Cumbernauld forecast site within the M80 DBFO O&M Works Site shall be utilised.

3.3.4 Thermal mapping

Thermal maps comprise digitised thermal fingerprints representing graphically variations in road surface temperatures along a route. By combining thermal map and forecast data, route maps can be produced indicating forecast minimum road surface temperatures along each route.

Digitised thermal mapping provides another useful tool for staff to supplement forecast data and local knowledge thereby aiding the decision making process for winter maintenance action, particularly on marginal nights and when partial salt runs are necessary. The maps can also be used to select suitable locations for additional outstations.

For effective use of thermal mapping, the digital map coverage of the M80 O&M Works Site must be maintained in a complete and up to date state. Where considered appropriate, recommendations on updating of thermal mapping will be made to the Scottish Ministers.

3.3.5 Location Plans

A plan showing the location of the Auchenkilns Forecast Station is shown in Annex WSP 6.

3.4 Computer Systems

There are a number of computer systems used to interrogate forecast and sensor data to enable the Winter Service Manager, Winter Service Duty Managers and Winter Service Duty Officers to make the most appropriate decisions for Winter Service actions. These computerised systems include the following:

- Bureau service, for the collection of ice sensor data. The bureau service is provided by Vaisala and is comprised of a large central database which collects data from all ice sensors at up to 20 minute intervals. MeteoGroup's daily and 2-5 day weather forecasts are also stored on the bureau.
- Vaisala Navigator viewer, a web based system which allows the Winter Service Manager, Winter Service Duty Managers and Winter Service Duty Officers to interrogate the bureau via any computer terminal which has internet access, to give the most up to date conditions at the ice sensor location on the O&M Works Site. This allows them to make informed decisions in relation to winter service actions and direct resources appropriately. MeteoGroup forecasts can also be accessed from the bureau via the Vaisala Ice cast viewer, allowing action plans to be created and these action plans to be monitored.
- An internet based system supplied by MeteoGroup UK called ROADCAST will also be utilised to access forecast data along with weather radar images. Weather radar images are particularly useful for predicting and monitoring precipitation conditions.

4. MONITORING ARRANGEMENTS FOR AREAS REQUIRING SPECIAL ATTENTION

During the winter season, drivers/inspectors will be instructed to pay particular attention to areas requiring special attention, and any problems identified shall be actioned appropriately and communicated to the Winter Duty Controllers, who shall record in the communications log such incidences as well as any actions carried out by the drivers. At present there are no known areas within the M80 O&M Works Site requiring special attention.

5 DECISION MAKING

5.1 Role of the Winter Service Manager

The role of the Winter Service Manager is to ensure that all procedures detailed in the Winter Service Plan are adhered to and that the most effective action plans are adopted each day to keep the carriageways and footways free from snow and ice.

It will be the duty of the Winter Service Manager to hold regular reviews throughout the Winter Service period in order to address any issues that may have arisen in implementing the Winter Service. This will take the form of de-briefings to all key staff regarding nights where difficult road conditions have been experienced. The philosophy will be to have a 'preventive' approach rather than 'reactive' approach in all decision making.

Consequently, the Winter Service Manager will always be apprised of the daily action plan, which will be developed and authorised by the Winter Service Duty Manager as detailed in section 2.

The Winter Service Manager is responsible for ensuring the ice detection system is monitored, including updated forecasts, to assess whether any changes are required to the daily action plan. Where any changes to the daily action plan are considered necessary, the Winter Service Duty Manager will relay this to the Winter Service Duty Officers, confirming the change.

The Winter Service Duty Controllers will assist the Winter Service Duty Manager in monitoring the ice detection system. The Winter Service Duty Controllers will contact the Winter Service Duty Manager if there is any significant change from the forecast road surface temperatures and precipitation. Particularly overnight, the Winter Service Duty Controllers can upgrade actions if conditions deteriorate. The Winter Service Duty Controllers cannot cancel actions without the Winter Service Duty Manager's consent.

5.2 Role of the Winter Service Duty Officer

The Winter Service Duty Officer is responsible for all operational matters, including the deployment of all resources (as well as any additional resources required during adverse conditions) on receipt of the Daily Action Plan from the Winter Service Duty Manager.

Duty Officers are responsible for the maintenance and updating of operational records including but not limited to the following:

- treatment decisions and how decisions were taken, when and by whom
- treatment records
- mobile sensor records
- material usage
- road closure locations and times
- logs of communications to and from vehicles on route
- software faults
- electronic data from data loggers
- back up paper records

In practical terms, the Winter Service Duty Controllers will collate much of this information on the Duty Officer's behalf.

5.2.1 Proposals for precautionary and additional de-icing treatments when low confidence forecasts shall be issued for variable road and weather conditions

Precautionary treatments will be provisionally identified on an action plan prepared each day by 15:00 hours following receipt of an expert weather forecast relayed through the ice prediction system. Treatments will be in accordance with the treatment matrices detailed in WSP 7 as per Sch 4 App B. Thereafter, and in particular where forecasts are of low confidence, conditions will continue to be monitored by Winter Service Duty Controllers; where conditions require further precautionary treatments, these will be ordered whether part of the action plan or not.

5.2.2 Proposals for monitoring the effectiveness of de-icing materials

Winter Service Duty Managers and Winter Service Duty Controllers will use a variety of methods in order to assist in assessing the effectiveness of the de-icing materials which have been spread on the carriageway. These methods are as follows:

- Ice stations detail residual salt and give alarms to indicate low residual salt under certain conditions. It should, however, be remembered that particularly in drying out conditions, such readings may be unreliable
- Warnings and alarms from all available ice stations
- Experience of local areas and previous actions
- Advice from weather forecasters, particularly on likely precipitation (use of weather radar) which may cause salt to be washed from carriageway
- Feedback from spreader drivers, patrols and mobile sensors
- Feedback from external parties such as the Police

All of the above can be used by the Winter Service Duty Managers and Controllers to make an informed decision regarding the status of residual salt on the carriageway, and whether further pre-treatment is necessary.

On occasions when freezing rain is forecast by MeteoGroup UK we will, as far as is practically possible, ensure a precautionary treatment has been undertaken prior to the times forecast for this rain.

6 LIAISON

Our plans for liaison with people and organisations are as follows:

6.1 The Scottish Ministers

At the completion of each winter season BEAR Scotland will prepare an annual report in accordance with Schedule 4, Part 2, Clause 3.2.4. This report will be submitted to the Scottish Ministers prior to 31st May, and within 14 days an annual review meeting will be held to discuss the

contents of the report and BEAR Scotland's performance in the immediately preceding Winter Service Period ending 15th May. Comments will be taken into consideration by BEAR Scotland in the preparation of the Winter Service Plan for the forthcoming Winter Service period, and amendments to the previous Winter Service Plan made prior to submission by 31st July.

On a daily basis, BEAR Scotland's daily winter action plan will be submitted to the Scottish Ministers. During periods of prolonged severe weather, BEAR Scotland will update the Scottish Ministers at regular intervals as to conditions on the M80 O&M Works Site. If a road is closed due to severe weather conditions, the Scottish Ministers will be immediately informed by telephone call, which shall subsequently be confirmed in writing via email within 12 hours of the closure.

BEAR Scotland will also liaise with Transport Scotland's Multi Agency Response Team (MART) as directed by Transport Scotland. There will be a daily conference call between Operating Companies, Transport Scotland and DBFO companies, prior to and during a severe weather event. Provision of daily plant and resources will be provided. BEAR will have a presence in MART as and when requested by Transport Scotland. The member of staff may also represent the North East and South East Units.

6.2 The Police

In the compilation of the annual Winter Service Plan (WSP) an annual meeting will be held with the Police to capture all views so that any amendments can be introduced into the WSP prior to submission to the Scottish Ministers for their approval. The meeting shall take the form of a review of the draft WSP for the forthcoming season and provide a forum in which Police Scotland can comment on what, in their opinion, may be improved upon.

During the winter season it is essential that good communication lines are maintained between BEAR Scotland and local Police. This is particularly the case during periods of severe weather. A dedicated phone line shall be implemented for the Emergency Services, the number for which will be known only to the Emergency Services, so that Winter Service Duty Controllers can clearly distinguish between general calls and any calls from the Emergency Services including the Police.

BEAR Scotland will also liaise closely with the Police during severe weather to ensure that a consistent message is given to the media and road users as to road conditions at any moment.

6.3 Traffic Scotland Operator

BEAR Scotland in conjunction with the Police ensure that during periods of severe weather, a consistent message is given to the Traffic Scotland Operator in order that accurate messages can

be displayed on the variable message signs and also accurate information can be relayed to the public through Traffic Scotland's web site.

BEAR Scotland's daily winter action plan will be submitted to the Traffic Scotland Operator on a daily basis.

6.4 Adjacent Road and Highway Authorities

Adjacent local authorities will be consulted prior to the Winter Service Plan being submitted to the Scottish Ministers.

BEAR Scotland will issue its daily Winter Action Plan to all adjacent road and highway authorities on a daily basis. Winter issues shall also be an item on the agenda at liaison meetings with all adjacent road and highway authorities.

6.5 Adjacent Trunk Road Operating Companies

Adjacent Trunk Road Operating Companies will be consulted prior to the Winter Service Plan being submitted to the Scottish Ministers.

BEAR Scotland shall issue its daily winter action plan to all adjacent Trunk Road Operating Companies on a daily basis.

Winter issues shall also be an item on the agenda at liaison meetings with all adjacent Trunk Road Operating Companies.

6.6 Network Rail

There are no railway crossings on the M80 O&M Works Site; however BEAR Scotland's daily Winter Action Plan shall be submitted to Network Rail on a daily basis.

7 WINTER SERVICE PATROLS

Between 1st November 2013 and March 31st 2014, a Winter Service Patrol shall operate between the hours of 2am and 10am when road surface temperatures are forecast to be less than 3˚C. The route time shall not exceed 1 hour and shall have a 30 minute response time.

Patrol route shown as per Annex WSP 11.

8 PRECAUTIONARY TREATMENT ROUTES

8.1 Precautionary Treatment Routes

Two precautionary treatment routes for the M80 O&M Works Site have been identified, and associated route cards provided as given in Annex WSP 2. Treatment Routes include all hard shoulders and also associated slip roads at Junctions 3, 4, 4a, 5, 6, 6a and 7 of the M80 and Junction 3 of the M73 up to the Local or adjoining Authority Boundary. Dedicated slip roads form the 3 and 4 lane sections and are treated separately from the mainline carriageway.

(i) The routes have been designed to ensure that treatment time can be completed within 2 hours of commencement. Furthermore, the routes have been assessed to ensure that the contractual response time in paragraph 3.10.1 of Part 2 of Schedule 4 of one hour will be met. In the design of the routes, due cognisance has been taken of likely driver's locations, and the need to ensure that rotas are carefully managed in this regard. On some occasions it may be necessary to pre-load spreading vehicles as instructed by the Winter Service Manager.

(ii) Should, for any reason, the normal access to a route be blocked, both treatment routes can be accessed from an alternative depot or by making use of diversion routes using the local authority road network.

(iii) Treatment of all precautionary routes will include areas deemed to be contiguous and included in the total width of the main carriageway

It is proposed that the precautionary treatment routes will generally commence three hours prior to the road surface temperature going below freezing. This will ensure that all carriageways with negative texture surfaces will be treated as close as is practicable to the time forecast for road surface temperatures to be at less than or equal to +1^{o}C.

Whilst BEAR Scotland will comply fully with the requirement in paragraph 3.3.3 of Schedule 4 Part 2 for three trained Winter Drivers to be available for each item of front line Winter Constructional Plant, it is also proposed that there will be a rota of four Winter Drivers for the precautionary treatment routes in order to fully comply with driver's hours regulations.

9 SNOW AND ICE CLEARANCE

9.1 Snow Clearing

As soon as the Winter Service Duty Controller or Manager becomes aware that snow is falling or if the forecasting organisation advises the Winter Service Duty Manager through the consultancy service that snow is about to fall, resources will be mobilised from the depot to reach the route within one hour of such a decision being made. They will remain on the route except for re-loading breaks until such time as the snow is removed.

Where the accumulation of snow is expected to be less than 30mm deep and is not capable of being ploughed, one vehicle will be deployed to treat each route. Where, however, snow is expected to accumulate to a depth greater than 30mm, reserve vehicles will be deployed as appropriate. In advance of any predicted snow conditions, snow ploughs shall be mounted to winter constructional vehicles as required.

Where extreme conditions are experienced such that there is a possibility of roads being closed, the Winter Service Duty Officer will deploy additional resources. In relation to clearance of ice that has already formed, the Winter Service Duty Officer will deploy whatever resources are deemed necessary based on the reports from patrols, Police or drivers sent out as a result of ice prediction site monitoring.

Where ploughing is required but is not at levels where additional vehicles have been deployed, echelon ploughing will still be carried out on all dual carriageway sections.

In snow conditions, BEAR Scotland will give priority to clearing lanes completely of snow, removing it to the verge-side carriageway channels, and ensuring that entry and exit points, including slip roads to the Trunk Road Network are not blocked. Clearance of snow from the hard shoulder will be carried out only after the main carriageway has been completely cleared of snow.

During and after prolonged snowfall, continuous ploughing will be utilised to prevent snow build-up and compaction by traffic. Snow blowers will be deployed where deep accumulations have occurred due to prolonged snowfall or drifting.

Where hard-packed snow and ice have formed and cannot be removed by ploughing, 5mm sharp sand will be added to the salt at a ratio of 1:1 and successive treatments at a spread rate of 20 to 40g/m^2 will be undertaken to aid vehicular traction. Treatment with pure salt will be reverted to as soon as the hard packed material has been removed.

In addition to the front line and reserve spreaders, BEAR Scotland will be able to call upon additional labour and plant resources to enhance our snow clearing capacity. These consist of ice breaking machinery, snow blowers, a considerable number of vehicles capable of having a snowplough blade fitted, and mechanical excavators. BEAR Scotland has set up agreements with various local contractors to assist with both labour and plant for snow clearance.

Any decision to close a road will be taken by the Police. This decision will generally be relayed by the Police to the Winter Service Duty Officer using the dedicated phone line. The Winter Service Duty Officer is responsible for liaison with the police.

The Winter Service Duty Officer, the Scottish Ministers and Traffic Scotland will be informed immediately by telephone and in writing via email within 12 hours of any decision to close a road, or of other major problems encountered within the M80 O&M Works Site due to winter weather conditions. Liaison will also take place through MART with Transport Scotland.

The Police will normally notify the other Emergency Services of any road closures and will arrange for the provision of advance warning signs and/or will activate variable message signs where appropriate.

The Winter Service Duty Officer will also notify the local Roads Authorities of any relevant trunk road closures.

During periods of prolonged snowfall, additional staff will be deployed in the Winter Service Control Room and continual shifts will be employed for winter maintenance operations at relevant BEAR Scotland depots. The period for which continual shifts apply will be agreed between the Winter Service Manager and the Winter Service Duty Officers and may not need to be applied concurrently at all depots, as weather conditions may be localised and not affecting all areas. In such cases, careful consideration will be given to the movement of resources between depots.

10. DE-ICING MATERIALS

10.1 Details

Pre-wetted salt will be used as a de-icing material on the M80 O&M Works Site carriageways for Winter Service period 2013/2014.

10.1.1 Salt

Rock salt shall be 6.3mm grading particle size complying with BS3247 or equivalent, treated with an anti-caking agent and will be sourced from recognised suppliers. Samples will be obtained for laboratory testing to ensure compliance with this standard.

Salt storage will be such that the stockpiles do not become contaminated with foreign matter, and that the salt storage and loading/discharge operations do not adversely affect the adjacent environment. It is also important that salt is stored in conditions which allow the moisture contents defined in the contract to be achieved.

Arrangements will be put in place with a UKAS-accredited testing agency to carry out testing of new deliveries of salt on arrival and monthly tests on existing salt stockpiles. At times of high usage, the monthly test may coincide with the testing of new salt. All testing reports will be sent to the Winter Service Manager who will authorise the salt as "fit for use".

Where there are any non-conformances arising from the test results, the Winter Service Manager will be responsible for closing these out by detailing the action(s) necessary to ensure compliance with the contract. This may, where appropriate, involve the use of enhanced salting rates.

In the event of salt moisture content reaching an unacceptable level, this material will be set aside and replaced with salt with acceptable moisture content.

Rock salt complying with BS3247 *"Salt for spreading on highways for winter maintenance"* will be sourced from recognised suppliers. This salt shall be transferred by either road or ship as appropriate for each depot location.

A salt management strategy is in place which takes into account minimum salt stock levels at the depot detailed in WSP 3. This details the minimum level of salt that will be held at the depot at any time throughout the winter period. The strategy will be to maintain adequate stocks at the depot and to regularly top up the stockpiles as necessary. This will be achieved by utilising salt stockpiles managed by both BEAR Scotland and our salt suppliers. Rigorous reporting of salt usage will enable accurate reporting of stock levels held at the depot. Should this strategy change on the M80 O&M Works site, the Scottish Ministers will be notified of our procedure. This document will be subsequently updated and resubmitted for approval.

10.1.2 Brine

Salt Saturators will be installed at each depot for the production of brine. The brine will have a minimum concentration of 23% dissolved sodium chloride. This level of concentration will be tested and recorded on a daily basis by a member of the Operations Team.

These daily checks of the concentration of the brine solution shall be carried out at each depot using a saturation meter and the results shall be stored electronically at each depot.

Salt used in the production of brine shall be salt specified as suitable for the creation of brine by the manufacturer of the relevant salt saturator for each depot.

Brine will be stored both in the salt saturator and also each spreading vehicle will be re-filled immediately after treatment undertaken, thus acting as a further storage facility. This maximises the volume of brine available at any time, ensuring an immediate response to any treatment decision.

Operational staff and operatives at BEAR Scotland's Chryston depot will be given the responsibility for daily checks of the concentration of the brine solution. These checks shall be carried out using a saturation meter, and the results passed to the Winter Service Duty Controllers who will store these electronically.

Brine added to salt during spreading operations shall be 30% of the total spread material by weight (70% salt, 30% brine solution) and the brine solution shall be of a minimum concentration of 23% dissolved sodium chloride, except where forecast temperatures are to fall below -15 ^{o}C.

Where temperatures are forecast to below minus 15^{o}C the fully saturated brine shall be diluted by the addition of 5% - 10% water to prevent re-crystallisation of the salt. The addition of water shall be undertaken in such a manner that ensures the water and brine is thoroughly mixed to produce a consistent concentration of brine.

As soon as the temperature rises above minus 15^{o}C a return to an application of fully saturated brine solution shall be employed.

11. WINTER CONSTRUCTIONAL PLANT

BEAR Scotland's Fleet Manager is responsible for all matters relating to servicing and maintenance of winter plant, and will ensure that all winter maintenance plant is properly maintained, including:

- drafting and implementing proactive maintenance regimes for specialist items of plant and equipment in accordance with F.T.A., DoT and Operator's Licence requirements
- training drivers and mechanics on the plant they operate and maintain
- fully resourced static and mobile workshops, including standby rotas for management and fitters

- ensuring the fleet is effectively maintained and used in the manner for which it was intended
- undertaking weekly checks and filing defect reports on all plant
- calibration of salt spreading plant in September and January in accordance with the manufacturers' recommendations. All calibrations shall be carried out by an independent third party in the manner described in 11.5.

All Winter Fleet and Incident Support vehicles will carry a supply of 24 space blankets, 24 bottles of water and 24 energy bars.

11.1 Frontline Winter Constructional Plant

There will be two frontline vehicles located at the Chryston depot as detailed in Annex WSP 5 Table 1. One dedicated frontline winter patrol vehicle will be located at the Chryston depot as detailed in Annex WSP 5 Table 7.

11.2 Reserve Winter Constructional Plant

There will be two reserve vehicles located at the Chryston depot as detailed in Annex WSP 5 Table 2. One dedicated reserve winter patrol vehicle will be located at the Chryston depot also detailed in Annex WSP 5 Table 2.

11.3 Additional Winter Constructional Plant

Additional winter constructional plant is detailed in Annex WSP 5 Table 4.

When additional winter constructional plant is required for assisting with clearance of snow or ice, this shall be anticipated by the Winter Service Duty Officer from the assessment of the long range 2 – 5 day weather forecast provided by the expert forecast provider. As well as additional salt spreaders and snow ploughing machinery, BEAR will be able to utilise a specialist ice breaking

machine from Norway to assist with winter activities as required throughout the Winter Service Period.

On receipt of a forecast which predicts a major snowfall, the Winter Service Duty Officer shall contact all parties involved in providing additional winter constructional plant and a rota with contact details of all operatives involved shall be created and communicated to the Winter Service Manager, Winter Service Duty Managers and Winter Service Duty Officers via email. Once conditions reach the stage that these additional resources are required, the Winter Service Duty Officer shall call the appropriate operatives and give clear instructions on what they are required to do. Details of all actions shall be recorded in the appropriate electronic log.

Where advance notice is not received in relation to extreme conditions, the timescale of a maximum of four hours until the additional resource is operating at the required location will still be met. The contractual terms entered into with the hauliers who will provide this service will also stipulate that they must make the resources available as requested; their readiness to provide vehicles with the appropriate prioritisation will be checked at the start of each Winter Service period.

11.4 Loading Winter Constructional Plant

A JCB 530/70 Telescopic Loader or similar will be located at BEAR Scotland's Chryston depot for the purpose of loading all winter constructional plant. See Annex WSP5 Table 5.

11.5 Calibration of Constructional Plant

BEAR Scotland will arrange for the calibration of all of its salt spreading equipment in September and January of each Winter Service period. Calibration will be carried out in accordance with the requirements of BS1622 or equivalent manufacturers' recommendations. Calibration Certificates will be held in the Central Office with copies at the depots where the plant is located.

As pre-wetted salt is being used to treat the carriageway, the condition in BS1622 Appendix A performance test states that the calibration test will be carried out on a still day. BEAR Scotland propose to perform Appendix B static discharge performance test in conjunction with Appendix C road discharge performance test from BS1622 to verify calibration of the spreaders. Calibration will be fully carried out in accordance with the manufacturers' recommendations and will be independently tested and certified.

Calibration will ensure that the spread width settings provide for the full carriageway width being treated with salt. Re-calibration and testing will take place after repairs to the spreading equipment and at any time doubts over the accuracy of spreading are indicated from salting records.

The Winter Service Manager will be responsible for ensuring all calibrations are carried out as planned, and recorded into the BEAR Scotland SharePoint Intranet. The Winter Service Manager will also be present at the dynamic testing required at the pre-season calibration. This will be carried out in accordance with BS1622 Test C.

12. MAPS DRAWINGS AND GRAPHICAL INFORMATION

12.1 Maps

12.1.1 Precautionary Treatment Route Maps

Maps showing the general layout of the M80 O&M Works Site are included in Annex WSP2.

12.1.2 Forecast Station Location Map

A location map showing the site of the M80 Cumbernauld forecast station for the M80 O&M Works Site is given in Annex WSP 6.

13. COMPILING AND MAINTAINING RECORDS

Records of decisions, amendments to decisions, actions taken and patrol communications will all be maintained on electronic logs in the Winter Control Room. It is the responsibility of the Winter Service Duty Officer to ensure all winter records (electronic and paper copies) are collected and maintained in a suitable format.

The vehicle data logs will be interrogated for effectiveness and efficiency of the operations. A daily report on the preceding day's winter maintenance operations will be submitted to the Winter Service Manager for perusal and action where required.

In addition, records as detailed in Appendix C of Part 2 of Schedule 4 will be held in appropriate electronic logs.

The following list identifies daily records which will be held electronically in accordance with Schedule 4 Part 2 Clause 3.2.3:

a) Decisions taken when and by whom;
b) Planned and actual treatment records;

c) Planned and actual response times achieved;
d) Planned and actual commencement times;
e) Planned and actual route times;
f) Planned and actual spread rates;
g) Winter Constructional Plant down time and software faults;
h) Winter Service plant deployment records (including global positioning system records) driver operator logs and recording of telephone calls;
i) Logs of telephone, e-mail and two way communication calls;
j) Loading point de-icing stocks and replenishment orders;
k) Ice prediction system records;
l) Weather forecasts and actual weather experienced;
m) Complaints from members of the public and other road users;
n) Accidents resulting from winter conditions;
o) Road closures due to winter conditions;
p) Weights and volumes as appropriate from de-icing material(s) spread for each route;
q) A log of hours for each operative spent on “call out” or “standby”; and
r) Winter patrol records.

A shared area will be set up on the BEAR Scotland central computer server where all appropriate files to which the Scottish Ministers require access will be stored. These files will be updated on a regular basis to ensure the data is as up to date as possible. The remote access for all files stored on the shared area shall be “Read only” to ensure the integrity of files.

14. SNOW POLES

There are currently no snow poles within the M80 O&M Works Site.

15. SNOW GATES

There are currently no snow gates within the M80 O&M Works Site.

16. VARIABLE MESSAGE SNOW AND ICE HIDDEN MESSAGE SIGNS

Variable message signs are in place throughout the M80 Stepps to Haggs O&M Works Site, including the M73/M80 link road. Following liaison with Traffic Scotland / Transport Scotland, these signs will be utilised to relay information to the travelling public as to any predicted adverse weather conditions or current incidents on the M80 Stepps to Haggs DBFO relating to winter.

17. SALT BINS AND SELF HELP HEAPS

There are currently no salt bins and self help heaps within the M80 O&M Works Site.

18. SALT MEASUREMENT APPARATUS

18.1 Details of equipment and locations and available recording methods

BEAR Scotland has a weighbridge at their Chryston Depot in order to accurately record the quantities of salt being used.

The measure will provide an electronic printout which will be held as a winter record. The facility proposed will also be calibrated strictly in accordance with manufacturer's instructions.

Annex WSP 1 – Not Used

Annex WSP 2

Precautionary Salting Routes

Table 1

Route No	Depot	Description	Depot to Route (km)	Time to Route (mins)	Salting Length (km)	Aver Speed (km/hr)	Route Time (mins)	Route to Depot (km)	Alternative Access
1	Chryston	M80 DBFO Route 1	9.7	13.3	43.6	56.3	80.2	9.2	See route details
2	Chryston	M80 DBFO Route 2	6.8	8.3	24.1	55.7	86.9	6.5	See route details

Table 2

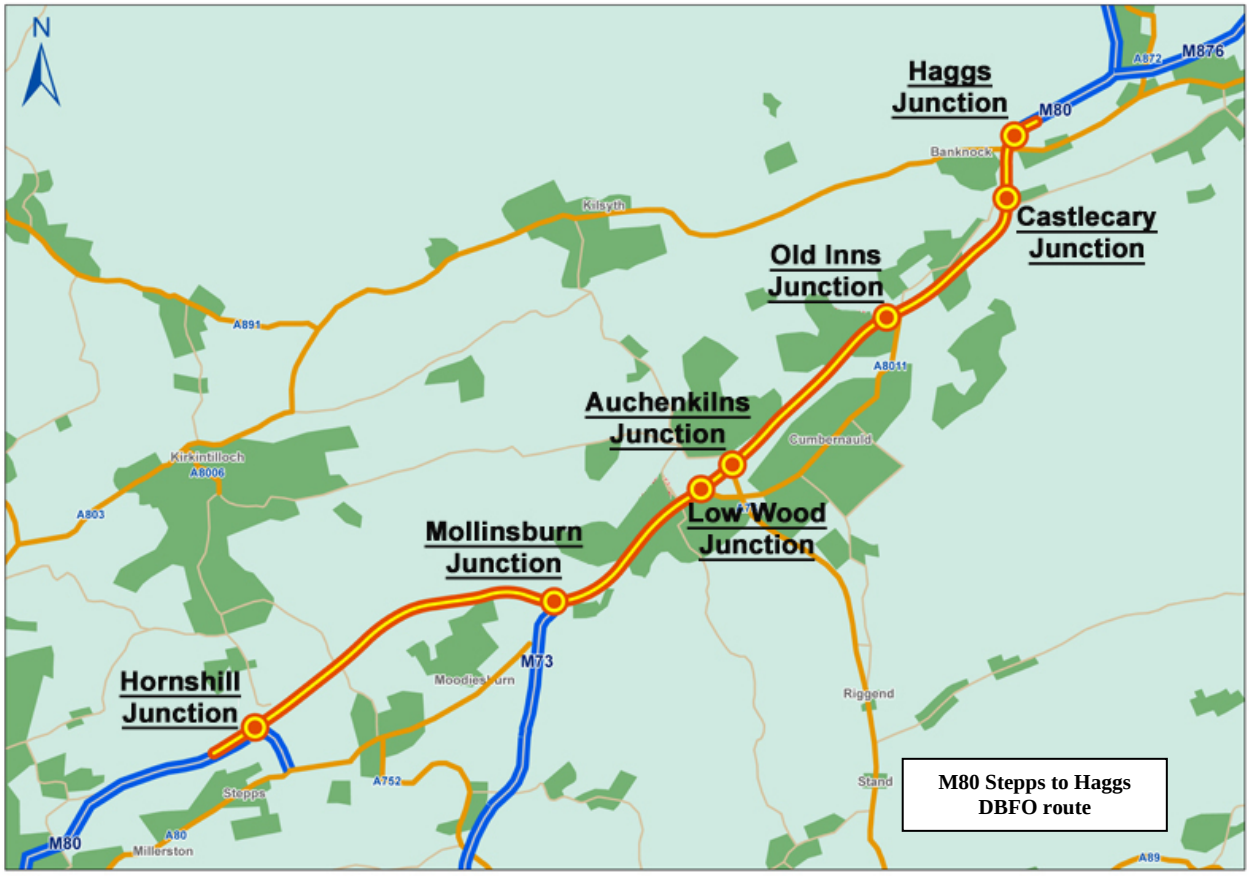
Route	Average Width of Route	Route Tonnage @ 10g/m^2	Route Tonnage @ 20g/m^2	Treatment Type
1	10	4.4	8.7	Pre-wetted salt
2	10	2.4	4.8	Pre-wetted salt

Route: Route 1

Spread Rate: Up to 20g/m^2

Treatment Type: Pre-wetted Salt

Depot	Chryston	Route Efficiency (%)	57.9%
		Route Length (km)	75.3
Depot to Route (km)	9.7	Route Treated Length (km)	43.6
Depot to Route (mins)	13.3	Route Time (mins)	80.2
		Route Tonnage (t)	8.7
Route to Depot (km)	9.2	Route Average Width (m)	10
Route to Depot (mins)	10.6	Route Average Speed (km/hr)	56.3



Alternative Access: In the event of any interruption to the network which would require alternative access, the frontline vehicle will treat the network to the point of blockage and then use the local road network to circumvent the blockage.

Route 1

Step	Salt/Travel	Route	Distance (km)	Time (mins)	Salt Usage at 20g/m^2 (tonnes)
1	Travel	Depot to start of Westfield N/B off slip from M80 via Gartferry Road, A752, A80, Crowwood Rdbt. and Jct.3.	9.7	13.33	0.00
START OF ROUTE					
2	Salt	Westfield N/B off slip to end (left side of splitter island).	0.5	0.49	0.10
3	Travel	From end of slip road to start of Westfield S/B on slip (right side of splitter island) via Deerdykes Rdbt.	1.4	3.74	0.00
4	Salt	Right side of splitter island on Westfield S/B on slip on to M80 S/B.	0.7	0.69	0.14
5	Salt	M80 S/B from end of Westfield on slip to end of DBFO route at Jct.2 Robroyston.	7	6.86	1.40
6	Travel	S/B from end of DBFO route to start of N/B DBFO route via M80 Jct.1.	8.2	8.11	0.00
7	Salt	N/B from start of DBFO route to splitter island on Westfield N/B off slip.	7.2	7.06	1.44
8	Salt	Right side of splitter island on Westfield N/B off slip.	0.05	0.06	0.01
9	Travel	From end of Westfield N/B off slip to start of Westfield S/B on slip (left side of splitter island).	0.5	2.62	0.00
10	Salt	Left side of splitter island on Westfield S/B on slip.	0.05	0.06	0.01
11	Travel	S/B to start of Jct.3 S/B off slip.	4.5	4.41	0.00
12	Salt	Jct.3 S/B off slip to roundabout.	0.43	0.42	0.09
13	Travel	Enter Jct.3 Roundabout and take exit for M80 S/B.	0.15	0.69	0.00
14	Salt	Jct.3 S/B on slip to M80.	0.6	0.59	0.12
15	Travel	S/B from end of Jct.3 on slip to start of Jct.2 off slip.	1.5	1.47	0.00
16	Salt	Jct.2 S/B off slip to end.	0.45	0.44	0.09
17	Travel	From end of Jct.2 S/B off slip to start of Jct.2 N/B on slip.	0.4	1.00	0.00
18	Salt	Jct.2 N/B on slip to M80.	0.42	0.41	0.08
19	Travel	N/B from end of Jct.2 N/B on slip to start of Jct.3 N/B off slip.	1.7	1.67	0.00
20	Salt	Jct.3 N/B off slip to roundabout.	0.6	0.59	0.12

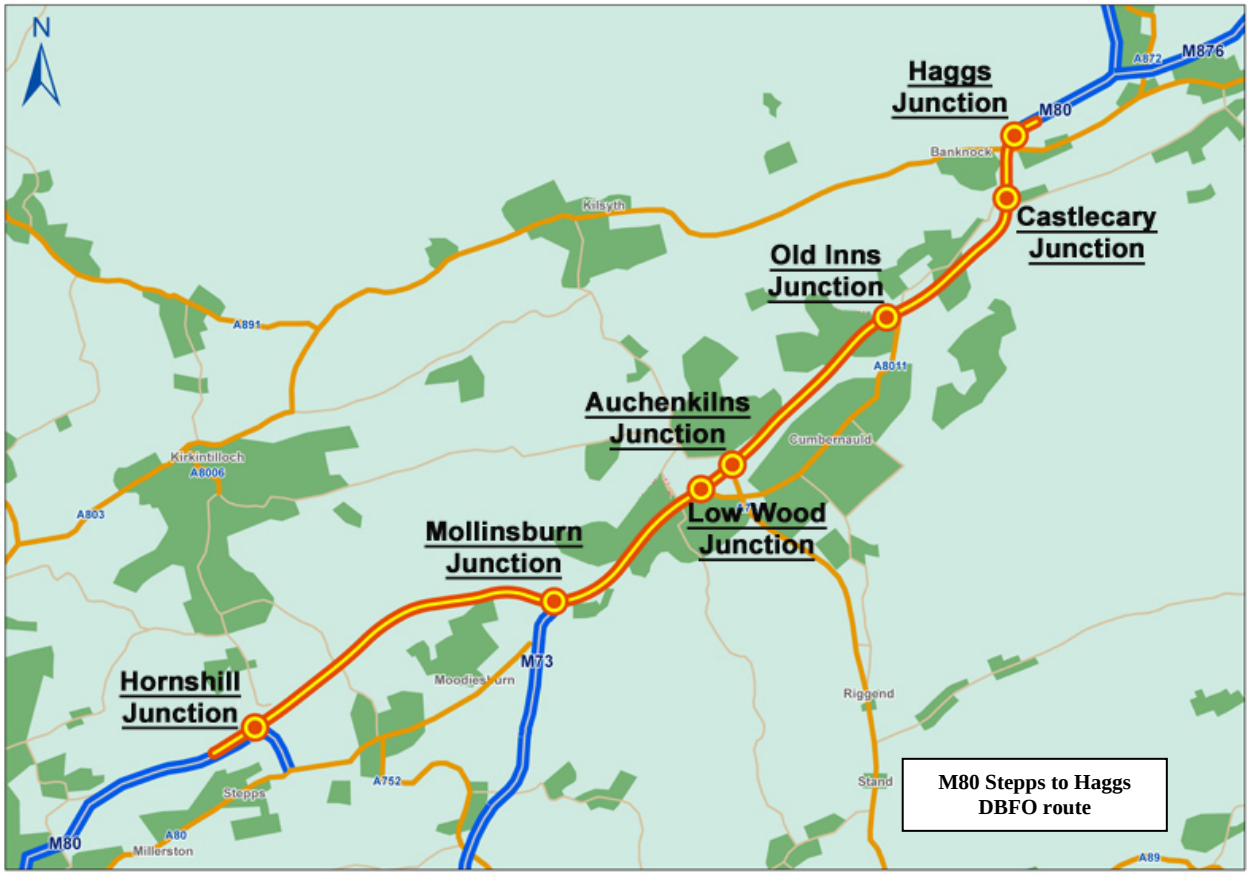
Step	Salt/Travel	Route	Distance (km)	Time (mins)	Salt Usage at 20g/m^2 (tonnes)
21	Travel	Enter Jct.3 Roundabout and take exit for M80 N/B.	0.15	0.65	0.00
22	Salt	Jct.3 N/B on slip to M80.	0.6	0.59	0.12
23	Travel	N/B from end of Jct.3 N/B on slip to start of Westfield N/B off slip.	4.2	4.12	0.00
24	Salt	N/B from start of Westfield off slip to start of Haggs N/B off slip.	11.7	11.47	2.34
25	Salt	N/B from start of Haggs N/B off slip to end of Haggs N/B on slip.	0.53	0.52	0.13
26	Salt	N/B from end of Haggs N/B on slip to end of DBFO route.	0.25	0.25	0.05
27	Travel	N/B from end of DBFO route north of Haggs to M876 Jct.1, turn then return S/B to start of DBFO route north of Haggs.	9	8.99	0.00
28	Salt	S/B from start of DBFO route to Westfield S/B on slip.	12.5	12.26	2.50
END OF ROUTE					
29	Travel	Back to depot via M80 Jct.3, Crowwood Rdbt., Muirhead, Gartferry Road.	9.2	10.62	0.00

Route: Route 2

Spread Rate: Up to 20g/m^2

Treatment Type: Pre-wetted Salt

Depot	Chryston	Route Efficiency (%)	29.9%
		Route Length (km)	80.6
Depot to Route (km)	6.8	Route Treated Length (km)	24.1
Depot to Route (mins)	8.4	Route Time (mins)	86.9
		Route Tonnage (t)	4.82
Route to Depot (km)	6.5	Route Average Width (m)	10
Route to Depot (mins)	11.7	Route Average Speed (km/hr)	55.7



Alternative Access: In the event of any interruption to the network which would require alternative access, the frontline vehicle will treat the network to the point of blockage and then use the local road network to circumvent the blockage.

Route 2

Step	Salt/Travel	Route	Distance (km)	Time (mins)	Salt Usage at 20g/m^2 (tonnes)
1	Travel	Depot to start of Lowwoods N/B off slip via Gartferry Road, Westfield link and M73 N/B.	6.8	8.34	0.00
START OF ROUTE					
2	Salt	Lowwoods N/B off slip to A8011 (taking right fork on the slip).	0.9	0.88	0.18
3	Travel	From end of Lowwoods N/B off slip to start of Lowwoods S/B on slip via Condorrat Ring Road.	1.1	2.37	0.00
4	Salt	Lowwoods S/B on slip to M80.	0.55	0.54	0.11
5	Salt	S/B from end of Lowwoods S/B on slip to start of M73 link road in dedicated lane.	1.5	1.47	0.30
6	Salt	S/B from start of M73 link road to end of DBFO route on M73 S/B.	2.7	2.65	0.54
7	Travel	S/B from end of DBFO route to Jct.2a, turn then return to start of DBFO route on M73 N/B.	5.2	4.46	0.00
8	Salt	N/B from start of DBFO route taking right lane at lane split prior to M80 merge, on to lane 1 at M80 merge then on to start of Lowwoods N/B off slip.	3.6	3.53	0.72
9	Travel	N/B from start of Lowwoods N/B off slip to start of Auchenkilns N/B off slip.	0.6	0.40	0.00
10	Salt	Auchenkilns N/B off slip to roundabout then take 2nd exit to start of Auchenkilns N/B on slip.	0.45	0.44	0.09
11	Salt	Auchenkilns N/B on slip to A80.	0.6	0.59	0.12
12	Travel	N/B from end of Auchenkilns N/B on slip to start of Old Inns N/B off slip.	2.4	1.60	0.00
13	Salt	Old Inns N/B off slip to end, then turn round on Old Inns Rdbt. to start of Old Inns N/B on slip.	0.7	1.25	0.14
14	Salt	Old Inns N/B on slip to A80.	0.67	0.71	0.13
15	Travel	N/B from end of Old Inns N/B on slip to start of N/B emergency lane prior to Castlecary Arches.	2.05	2.01	0.00
16	Salt	N/B emergency lane at Castlecary Arches.	0.25	0.31	0.05
17	Travel	N/B from end of N/B emergency lane at Castlecary Arches to start of Haggs N/B off slip.	0.95	0.93	0.00
18	Salt	Haggs N/B off slip to end.	0.5	0.53	0.10
19	Travel	S/B on A803 to mini-roundabout in Haggs and turn round to start of Haggs N/B on slip	0.55	1.68	0.00

Step	Salt/Travel	Route	Distance (km)	Time (mins)	Salt Usage at 20g/m^2 (tonnes)
20	Salt	Haggs N/B on slip to end.	0.6	0.64	0.12
21	Salt	N/B from end of Haggs N/B on slip to end of DBFO route in lane 1.	0.25	0.25	0.05
22	Travel	N/B from end of DBFO route to M876 Jct.1, turn S/B then on to start of S/B DBFO route north of Haggs.	9	8.71	0.00
23	Salt	S/B dedicated lane on to Haggs S/B off slip to end from start of DBFO route, then turn on mini-roundabout to start of Haggs S/B on slip.	0.75	0.74	0.15
24	Salt	Haggs S/B on slip to dedicated lane for Castlecary.	0.36	0.38	0.07
25	Salt	S/B dedicated lane for Castlecary from end of Haggs S/B on slip to start of Castlecary S/B off slip.	0.64	0.68	0.13
26	Salt	Castlecary S/B off slip turning right on to bus gate to end.	0.3	0.37	0.06
27	Travel	B816 over A80 to start of Castlecary N/B on slip.	0.35	0.84	0.00
28	Salt	Castlecary N/B on slip (1st slip) to lane 1 of M80 N/B.	0.27	0.26	0.05
29	Salt	N/B from end of Castlecary N/B on slip to start of Haggs off slip in lane 1.	0.85	0.83	0.17
30	Travel	From start of Haggs N/B off slip to start of splitter island on Castlecary S/B off slip via Haggs.	2.45	3.28	0.00
31	Salt	Top of Castlecary S/B off slip to left of splitter island & turn left.	0.08	0.08	0.02
32	Travel	Travel & turn at 1st available point (NOT IN VILLAGE!!) back along B816 over M80 to start of S/B emergency lane at Castlecary Arches via Castlecary N/B on slip and Jct.7 Haggs.	6.7	9.24	0.00
33	Salt	S/B emergency lane at Castlecary Arches on to dedicated lane for Old Inns to start of Old Inns off slip.	1.92	1.88	0.38
34	Salt	Old Inns S/B off slip going left at splitter island (Cumbernauld-bound).	0.95	1.01	0.19
35	Travel	From end of Old Inns S/B off slip to start of splitter island on Old Inns S/B off slip via Cumbernauld Village, Old Inns N/B on slip, M80 N/B, Haggs, then M80 S/B.	10.3	12.97	0.00
36	Salt	Right side of splitter island on Old Inns S/B off slip to traffic lights on A8011.	0.03	0.03	0.01
37	Travel	From end of Old Inns S/B off slip to start of Old Inns S/B on slip.	0.02	1.02	0.00
38	Salt	Old Inns S/B on slip.	0.45	0.48	0.09
39	Travel	S/B from end of Old Inns S/B on slip to start of Auchenkilns S/B off slip.	3.1	2.06	0.00

Step	Salt/Travel	Route	Distance (km)	Time (mins)	Salt Usage at 20g/m^2 (tonnes)
40	Salt	Auchenkilns S/B off slip to roundabout and take 2nd exit to start of Auchenkilns S/B on slip.	0.55	0.54	0.11
41	Salt	Auchenkilns S/B on slip to M80.	0.36	0.35	0.07
42	Travel	S/B from end of Auchenkilns S/B on slip to start of Mollinsburn S/B off slip.	2.8	1.86	0.00
43	Salt	Mollinsburn S/B off slip then turn round on mini-roundabout to start of Mollinsburn S/B on slip.	0.42	0.91	0.08
44	Salt	Mollinsburn S/B on slip to end.	0.57	0.56	0.11
45	Travel	S/B from end of Mollinsburn S/B on slip to M73 Jct.2a, turn N/B then to start of Westfield N/B off slip on M73.	6.8	6.07	0.00
46	Salt	Westfield N/B off slip to roundabout then turn to start of Westfield N/B on slip.	0.67	1.16	0.13
47	Salt	Westfield N/B on slip to M73.	0.44	0.43	0.09
48	Travel	N/B from end of Westfield N/B on slip to start of left split in road at the lane split prior to the M80 merge.	1.05	0.87	0.00
49	Salt	N/B on left lane following lane split prior to the M80 merge to end.	0.83	0.81	0.17
50	Travel	N/B from end of M73 on slip to start of left split in road on Lowwoods N/B off slip.	1.03	0.77	0.00
51	Salt	Left split in road on Lowwoods N/B off slip to the A8011.	0.39	0.38	0.08
END OF ROUTE					
52	Travel	Back to depot via Westfield Road and Gartferry Road.	6.5	11.65	0.00

Annex WSP 3

Table 1 – Minimum Salt Levels

Unit		
Minimum stock level at 1st October (tonnes)	Minimum stock level at 15th December (tonnes)	Minimum stock level at 1st March (tonnes)
600	800	400

Actual Salt Levels to be provided

Table 2 – Actual Salt Stock Levels

600 tonnes Chryston
1700 tonnes Gorebridge

Annex WSP 4 – Not Used

Annex WSP 5

Winter Service Constructional Plant

Table 1:

Frontline Winter Constructional Plant permanently available and located in Chryston Depot for Winter Service for carriageways.

Type Winter Constructional Plant	Depot Location	Vehicle Capacity	No of Vehicles	Plant Use
6 X 4 26T GVW	Chryston	9 m^3	1	Nil
6 X 4 26T GVW	Chryston	9 m^3	1	Nil

Table 2:

Reserve Winter Constructional Plant permanently available and located in Chryston Depot for Winter Service for carriageways.

Type Winter Constructional Plant	Depot Location	Vehicle Capacity	No of Vehicles	Plant Use
6 X 4 26T GVW	Chryston	9 m^3	1	Nil
6 X 4 18T GVW	Chryston	6 m^3	1	Nil
6 X 4 18T GVW	Chryston	6 m^3	1	Nil

Table 3:

Reserve Winter Constructional Plant permanently available and located in Chryston Depot for Winter Service for non-motorised user facilities (not applicable in full services).

Type Winter Constructional Plant	Depot Location	Vehicle Capacity	No of Vehicles	Plant Use
Nil				

Table 4:

Additional Winter Constructional Plant.

Type Winter Constructional Plant & Registration No	Depot Location & Operator	No of Vehicles	Mobilisation time in hours
Kubota B1710 footway Tractor	Bilston Glen/BEAR	1	4
6X4 26 T GVW	Chryston/Burghmuir	2	4
6X4 18 T GVW	Chryston/Burghmuir	1	4
6X4 26 T GVW	Linlithgow/Haulier	1	4
Rolba 400D Snowblower	Bilston Glen/BEAR	1	4

Standby agreements have been made with local plant hire business to provide additional plant in severe conditions.

Table 5:

Loading Winter Constructional Plant permanently available and located in the M80 O&M Works Site at the loading point.

Type of Winter Constructional Plant & Registration No	Depot Location	Vehicle Capacity	No of Vehicles
JCB 530/70 Telescopic Loader	Chryston	1.5 Cu. M bucket	1

Table 6:

Loading Winter Constructional Plant permanently available and located in the M80 O&M Works Site at the loading point.

Type of Winter Constructional Plant & Registration No	Depot Location	Vehicle Capacity	No of Vehicles
JCB 530/70 Telescopic Loader	Chryston	1.5 Cu. M bucket	1

Table 7:

Frontline Winter Constructional Plant permanently available and located in Chryston Depot for Winter Service for patrols.

Type Winter Constructional Plant	Depot Location	Vehicle Capacity	No of Vehicles
6 X 4 18T GVW	Chryston	6 m^3	1

Annex WSP 6

Below is a map showing the location of the Auchenkilns Forecast Station:

Road Number	Location	Type
M80	Cumbernauld	Vaisala

Annex WSP 7

Table 1: Forecast weather and road condition status

This table sets out the forecast weather and road condition status codes used in Schedule 4, Part 2, Appendix B, Table 2.

Forecast Weather			
A	Road surface temperature ≥ plus 1°C	G	Road surface temperature below minus 5°C following rain
B	Road surface temperature between plus 1°C and minus 2°C	H	Hoar Frost
C	Road surface temperature between minus 2°C and minus 5°C	I	Freezing fog
D	Road Surface temperature below 5°C	J	Freezing rain
E	Road surface temperature between plus 1°C and minus 2°C following rain	K	Snow accumulations up to 30 millimetres
		L	Snow accumulation over 30 millimetres
F	Road surface temperature between plus 2°C and minus 5°C following rain	M	Hard packed snow/ice
Road Conditions Status			
1. Road surface dry			
2. Frost susceptible area/known surface water run-off			
3 Road surface wet			

Requirements for De-icing Material Spread Rates (CONTINUED)

Table 2: Precautionary treatment salt spreading rates

This table gives the criteria for precautionary treatment and minimum salt spreading rates. The forecast weather and road conditions status codes are defined in Schedule 4, Part 2, Appendix B, Table 1.

Forecast Weather	Road Conditions Status		
	1 **Dry Road Surface (grammes per square metre)**	**2** **Frost susceptible /surface water run off area (grammes per square metre)**	**3** **Road Surface Wet (grammes per square metre)**
A	0	0	0
B	0	10 to 20	10 to 20
C	0	10 to 20	10 to 20
D	0	20	20
E	0	20	30
F	0	30	40
G	0	40	40
H	10	20	20
I	10	10	20
J	10	40	40
K	10	30	40
L	10	40	40
M	10	40	40

Requirements for De-icing Material Spread Rates (CONTINUED)

Table 3: Snow or ice clearance salt spreading rates

This table gives the minimum requirements for salt spreading rates for snow and ice clearance.

Road Surface Condition	Air Temperature	Treatment		
		Spreading (grammes per square metre)	Ploughing	Blowing
		Salt		
Ice Formed	Less than or equal to minus 5°C and stable	20 to 40	No	No
Snow covering exceeds 30 millimetres	Less than or equal to minus 5°C and stable	20	Yes	No
Snow covering exceeds 30 millimetres	Less than or equal to minus 5°C and dropping	20 to 40	Yes	Yes
Snow accumulating due to prolonged falls	Less than or equal to minus 5°C and stable	20 to 40	Yes (Continuous)	Where applicable
Hard packed snow/ice less than 20 millimetres thick	Greater than or equal to minus 5°C	20 to 40 (successive treatments)	No	No

Table 4: Precautionary treatment ethylene glycol spreading rates

Conditions Forecast	Spread Rate (litres/metre^2)
Frost and Road Surface Temperature (RST) at or above -2^{o}C	0.01 (effective to -4^{o}C)
Frost and Road Surface Temperature below -2^{o}C or Freezing conditions after rain.	

Annex WSP 8

Daily Winter Action Plan – Planned

BEAR SCOTLAND DAILY WINTER ACTION PLAN
Contract: South East Unit & M80 DBFO
Covering : till

Forecast Data

Domain	Min. Air °C	Min. RST °C	RST < 0°C	Hoar Frost	Ice	Heavy Rain	Fog	Freezing Rain	Snow	Snow Level	Drifting
1											
2											
3											
4											
5											
6											
7											
8											

Action Plan

Depot	Domain	Route		First Action & Time			Second Action & Time		
		No.	Description	Action	Start	End	Action	Start	End
Hawick	1	1	A7 Selkirk - National Boundary + Old A7 Auchenrivock						
Newtown St Boswells	1	2	A7 from Selkirk to A6091; A6091; A68 from A6091 to National Boundary						
Newtown St Boswells	2	3	A68 from A6091 Ravenswood Roundabout to A720 City of Edinburgh Bypass						
Duns	3	4	A1 Thistly Cross to National Boundary						
Bilston Glen	5	5	A702 Lothianburn to Abington						
Bilston Glen	4	6	A720 Dreghorn to A1 Thistly Cross (Main Cway NB and Slips SB)						
Bilston Glen	4	7	A720 Dreghorn to A1 Thistly Cross (Main Cway SB and Slips NB)						
Bilston Glen	6	8	A720 Dreghorn to Gogar, M8 Hermiston Gait to Jcn 3 (Main Cway and Slip Roads)						
Chryston	6	9	A8 Baillieston to M8 Jcn 3 Livingston (Main Cway WB and Slip Roads EB)						
Chryston	6	10	A8 Baillieston to M8 Jcn 3 Livingston (Slip Roads WB and Main Cway EB)						
Burghmuir	7	11	M9 Pardovan (west of J2) to Keir (NB Main Cway), M9 (SB Slip roads), M876/A876 (Various sections)						
Burghmuir	7	12	M9 (NB Slip roads), M876 and A876 (Various sections), M9 Keir to Pardovan (west of J2) (SB Main Cway)						
Burghmuir	7	12A	A876 Kincardine Bridge (GLYCOL TREATMENT)						
Burghmuir	7	13	M876 from M9 Jcn 7 to M80; M80 from Haggs to M9 Pirnhall						
Burghmuir	6	14	M9 Pardovan (west of J2) to M8 (NB & SB Main Cway), M8 J3 to Hermiston; M9/A90 link to Forth Road Bridge (Various Cway and Slip Roads)						
Lochgelly	8	15	A92 Chapel to Echline Ichange to M90 J6 to M823(M) to M90 J1 to M90 J2A to A92 Lochgelly Ichange (Various Main Cway and Slips)						
Lochgelly	8	16	A92 Lochgelly to M90 J1 to A90 Ferrytoll to A90 Burnshot Flyover to M90 J1 to M823(M) to M90 J3 to A985 (Various Main Cway and Slips)						
Hawick	1	CAT A	A7 Hawick Footways						
		CAT B	Various Urban Footways						
		CAT C	Various Urban Footways						
Chryston	7	M80DBFO1	M80 North of J2 Robroyston to M80 J7(4) North of Haggs (main cway)						
Chryston	7	M80DBFO2	M73 from J4 at Mollinsburn to South of the new J3. (+ M80 slips)						
Bilston Glen		SE-A1	Hermiston Gate - M8 Jct 3a - FRB - Hermiston Gate						
Bilston Glen		SE-A2	M9 Jct 1 - M9 Jct 7 - M876 Bowtree Interchg - M9 Jct 7 - M9 Jct 1						
Burghmuir		SE-A3	M9 Jct 7 - M80 Jct 4 via M876 - M9 Jct 9 via M80 0 M9 Jct 11 Keir RA - M9 Jct 7 - M876 Bowtree - M9 Jct 7						
Chryston		SE-A4	A8 Baillieston - M8 Jct 3a - A8 Baillieston						
Bilston		SE-A5	A720 Hermiston Gait RA - A1 Abbotsview Jct						
Lochgelly		SE-A6	A90 Ferrytoll - A823M - M90 Jct 2a - A92 Redhouse RA - M90 Jct 3 - M90 Jct 4 - A90 Ferrytoll						
Bilston		SE-B1	A702 Abington - A68 Ravenswood						
Hawick		SE-B2	A68 Carter bar - A7 English Border						
Chryston		M80DBFO-P	M80 North of J2 Robroyston to M80 J7(4) North of Haggs (main cway)						
Additional Comments									

KEY TO PLANNED ACTION

T1 - Pre-treatment 10gms/sq.m
T2 - Pre-treatment 20gms/sq.m
T3 - Pre-treatment 30gms/sq.m
T4 - Pre-treatment 40gms/sq.m
TE - Pre-treatment Ethylene Glycol
T*P - Pre-treatment Part route, *=1,2,3,4 or E
S - Standby in Depot
NA - No Action
PO - Patrol
TF - Plough/Salt Whole Route
TP - Plough/Salt Part Route

Drafted By :
Approved by :

for BEAR Scotland ®

Annex WSP 9

Daily Winter Action Plan – Actual

BEAR SCOTLAND DAILY WINTER ACTION RECORD
Contract: South East Unit & M80 DBFO
Covering : till

Action Record

Depot	Domain	Route		First Action & Time			Second Action & Time		
		No.	Description	Action	Start	End	Action	Start	End
Hawick	1	1	A7 Selkirk - National Boundary + Old A7 Auchenrivock						
Newtown St Boswells	1	2	A7 from Selkirk to A6091; A6091; A68 from A6091 to National Boundary						
Newtown St Boswells	2	3	A68 from A6091 Ravenswood Roundabout to A720 City of Edinburgh Bypass						
Duns	3	4	A1 Thistly Cross to National Boundary						
Bilston Glen	5	5	A702 Lothianburn to Abington						
Bilston Glen	4	6	A720 Dreghorn to A1 Thistly Cross (Main Cway NB and Slips SB)						
Bilston Glen	4	7	A720 Dreghorn to A1 Thistly Cross (Main Cway SB and Slips NB)						
Bilston Glen	6	8	A720 Dreghorn to Gogar, M8 Hermiston Gait to Jcn 3 (Main Cway and Slip Roads)						
Chryston	6	9	A8 Ballieston to M8 Jcn 3 Livingston (Main Cway WB and Slip Roads EB)						
Chryston	6	10	A8 Ballieston to M8 Jcn 3 Livingston (Slip Roads WB and Main Cway EB)						
Burghmuir	7	11	M9 Pardovan (west of J2) to Keir (NB Main Cway), M9 (SB Slip roads), M876/A876 (Various sections)						
Burghmuir	7	12	M9 (NB Slip roads), M876 and A876 (Various sections), M9 Keir to Pardovan (west of J2) (SB Main Cway)						
Burghmuir	7	12A	A876 Kincardine Bridge (GLYCOL TREATMENT)						
Burghmuir	7	13	M876 from M9 Jcn 7 to M80; M80 from Haggs to M9 Pirnhall						
Burghmuir	6	14	M9 Pardovan (west of J2) to M8 (NB & SB Main Cway), M8 J3 to Hermiston; M9/A90 link to Forth Road Bridge (Various Cway and Slip Roads)						
Lochgelly	8	15	A92 Chapel to Echline Ichange to M90 J6 to M823(M) to M90 J1 to M90 J2A to A92 Lochgelly Ichange (Various Main Cway and Slips)						
Lochgelly	8	16	A92 Lochgelly to M90 J1 to A90 Ferrytoll to A90 Burnshot Flyover to M90 J1 to M823(M) to M90 J3 to A985 (Various Main Cway and Slips)						
Hawick	1	CAT A	A7 Hawick Footways						
		CAT B	Various Urban Footways						
		CAT C	Various Urban Footways						
Chryston	7	M80DBFO1	M80 North of J2 Robroyston to M80 J7(4) North of Haggs (main cway)						
Chryston	7	M80DBFO2	M73 from J4 at Mollinsburn to South of the new J3. (+ M80 slips)						
Bilston Glen		SE-A1	Hermiston Gate - M8 Jct 3a - FRB - Hermiston Gate						
Bilston Glen		SE-A2	M9 Jct 1 - M9 Jct 7 - M876 Bowtree Interchg - M9 Jct 7 - M9 Jct 1						
Burghmuir		SE-A3	M9 Jct 7 - M80 Jct 4 via M876 - M9 Jct 9 via M80 0 M9 Jct 11 Keir RA - M9 Jct 7 - M876 Bowtree - M9 Jct 7						
Chryston		SE-A4	A8 Baillieston - M8 Jct 3a - A8 Baillieston						
Bilston		SE-A5	A720 Hermiston Gait RA - A1 Abbotsview Jct						
Lochgelly		SE-A6	A90 Ferrytoll - A823M - M90 Jct 2a - A92 Redhouse RA - M90 Jct 3 - M90 Jct 4 - A90 Ferrytoll						
Bilston		SE-B1	A702 Abington - A68 Ravenswood						
Hawick		SE-B2	A68 Carter bar - A7 English Border						
Chryston		M80DBFO-P	M80 North of J2 Robroyston to M80 J7(4) North of Haggs (main cway)						
Additional Comments									

KEY TO ACTUAL ACTIONS

T1 - Pre-treatment 10gms/sq.m	TE - Pre-treatment Ethylene Glycol	PO - Patrol
T2 - Pre-treatment 20gms/sq.m	T*P - Pre-treatment Part route, *=1,2,3,4 or E	TF - Plough/Salt Whole Route
T3 - Pre-treatment 30gms/sq.m	S - Standby in Depot	TP - Plough/Salt Part Route
T4 - Pre-treatment 40gms/sq.m	NA - No Action	

Compiled by :
Approved by : **for BEAR Scotland @**

Annex WSP 10

Winter Drivers Record

BEAR SCOTLAND		**WINTER DRIVERS RECORD**			**Document:** OPS-F06 **Issue:** 3 **Page No:** 1 of 1 **Related to:** Winter Service Plan

DEPOT:		**ROUTE:**		**VEHICLE REG.:**	
Weight when loaded		**Time called out for Unplanned Action**			
Brine Used Yes/ No		**If not Why?**			

Note: In table below enter treatment code in appropriate column. State approximate treated length (km) and locations for part route treatments.

Time Left Depot		**Action Taken**		**Planned**	**Unplanned**
Start of Action	**Date**	T1: Treatment 10 gms/sq.m.			
	Time	T2: Treatment 20 gms/sq.m.			
End of Action	**Date**	T3: Treatment 30 gms/sq.m.			
	Time	T4: Treatment 40 gms/sq.m.			
Time returned to Depot		TE: Treatment Ethylene Glycol			
Weight on Return		TF - Plough/salt whole route as necessary			
Rate of Spread (gms/sq m)		TP - Plough/salt part route as necessary			
Width of Spread (m)		T*P: Treatment part route			
Salt Grading: Fine		Part route treatment	1. from	to	
			2. from	to	
			3. from	to	

Did Planned Action commence on time?	Yes / No / Not applicable
Did Unplanned Action commence within 1 hour of call out?	Yes / No / Not applicable
Was pre-treatment completed within 2 hours?	Yes / No / Not applicable

If "No" to any of the above, give reasons/comment:

I confirm that the above is a true and accurate record of the winter maintenance action caried out. I claim that the above hours worked on unplanned treatment are exempt from UK domestic driver's hours restrictions.

Signed (Driver):	**Name:**	**Date:**

FOR SUPERVISORS USE ONLY

Supervisors Comments:

Document reason(s) for non-conformance, if applicable:

I have checked the above report and consider that the work has been undertaken in accordance with the specification and is a true and accurate

Signed (Supervisor):	**Name:**	**Date:**

NOTE: Completed form to be returned to Control room in Perth depot

Annex WSP 11

Motorway Patrols- These are not Treatment Routes

M80 DBFO Patrol Route	
Step 1	M80 Junction 4 Westfield S/B to Junction 2 Robroyston
Step 2	Turn around at Junction 2 Robroyston
Step 3	M80 Junction 2 Robroyston N/B to Junction 7 Haggs
Step 4	Turn around at M876 Junction 1 Checkbar
Step 5	M80 Junction 7 Haggs S/B to M73 S/B extent
Step 6	Turn around at M73 Junction 2a Gartcosh
Step 7	M73 extension N/B to M80
Step 8	Turn around at M80 Junction 5 Auchenkilns
Step 9	M80 Junction 5 Auchenkilns S/B to Junction 4 Westfield

Print Drivers Name			**Sign Drivers Name**		
Start Weight		**End Weight**		**Date**	

Patrol 1 (Main Carriageway) - start 02:00 **Start Time..... End Time……**

Location	Time	RST	Air Temp	Road/ Weather Conditions	Comments
Jct 4 Westfield					
Jct 2 Robroyston					
Jct 6 Old Inns					
Jct 7 Haggs					
Mollinsburn (M73)					
Jct 4 Westfield					

Patrol 2 (Slip Roads) - start 04:00 **Start Time..... End Time……**

Location	Time	RST	Air Temp	Road/ Weather Conditions	Comments
Jct 4 Westfield					
Jct 2 Robroyston					
Jct 6 Old Inns					
Jct 7 Haggs					
Mollinsburn (M73)					
Jct 4 Westfield					

Patrol 3 (Main Carriageway) - start 06:00 **Start Time..... End Time……**

Location	Time	RST	Air Temp	Road/ Weather Conditions	Comments
Jct 4 Westfield					
Jct 2 Robroyston					
Jct 6 Old Inns					
Jct 7 Haggs					
Mollinsburn (M73)					
Jct 4 Westfield					

Patrol 4 (Slip Roads) - start 08:00 **Start Time..... End Time……**

Location	Time	RST	Air Temp	Road/ Weather Conditions	Comments
Jct 4 Westfield					
Jct 2 Robroyston					
Jct 6 Old Inns					
Jct 7 Haggs					
Mollinsburn (M73)					
Jct 4 Westfield					

NOTES:

- Information must be returned to Control Room every patrol.
- When not Patrolling wait at Auchenkilns Overbridge unless otherwise instructed.
- Return to Depot at 10:00hrs.

BEAR Scotland Limited
Chryston Depot
Auchengeich Road
Chryston
North Lanarkshire
G69 0JL

Develop • Deliver • Sustain