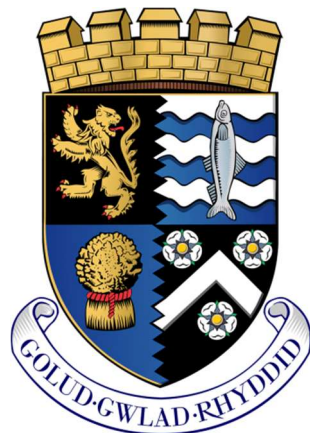


Winter Service Plan

2024/2025



Cyngor Sir
CEREDIGION
County Council

Cover Images –

Figure 1 – DAF unibody gritters. Used for Highways surface dressing in the summer months, snow ploughing and gritting duties in the winter months.

Figure 2 – Crest of Ceredigion County Council

Public Sector Geospatial Agreement –

The following statement appears on certain pages as a requirement of the Public Sector Geospatial Agreement.

Welsh Version: © Hawlfraint y Goron a hawliau cronfa ddata 2024-2025 Arolwg Ordnans 100024419.

English Version: © Crown copyright and database rights 2024-2025 Ordnance Survey 100024419.

Index of Contents

Document Approval – Starts on Page 4

Part 1 – **Policy Statement** – Starts on Page 5

Part 2 – **Update (2024/2025)** – Starts on Page 7

Part 3 – **Area and Responsibility** – Starts on Page 8

Part 4 – **Organisational Structure** – Starts on Page 10

Part 5 – **Operational Management** – Starts on Page 11

Part 6 – **Weather Forecasting and Ice Prediction System** – Starts on Page 12

Part 7 – **Communications** – Starts on Page 15

Part 8 – **Service Response** – Starts on Page 17

Part 9 – **Network / Hierarchy Priorities** – Starts on Page 21

Part 10 – **Snow Plan** – Starts on Page 23

Part 11 – **Salt Management** – Starts on Page 25

Part 12 – **Resources, Plant and Vehicles** – Starts on Page 28

Part 13 – **Contingency Planning** – Starts on Page 30

Part 14 – **Out of Hours Emergency Telephone Numbers** – Starts on Page 31

Document Approval

This document has been reviewed and approved by:

Councillor Keith Henson

Cabinet Member – Highways and Environmental Services and Carbon Management



A handwritten signature in black ink that reads "K Henson".

09/10/2024

Figure 3 – Photograph and signature of Councillor Keith Henson

Rhodri Llwyd

Corporate Lead Officer, Highways & Environmental Services



A handwritten signature in black ink that reads "R Llwyd".

09/10/2024

Figure 4 – Photograph and signature of Rhodri Llwyd

Highways & Environmental Services
Ceredigion County Council
Penmorfa
Aberaeron
Ceredigion. SA46 0PA

You can contact the Council by phoning 01545 570881 or emailing
cllc@ceredigion.gov.uk

Part 1 – Policy Statement

This document sets out the County Council's policy and standards for Winter Service treatment. The document is primarily unchanged from 2014-15 apart from; (1) updating organisational information resulting from service restructuring, (2) review of the pre-treatment assessment methodology 2024, and (3) changes to operational fleet details.

This policy is accompanied by operational plans and procedures containing the arrangements in place to deliver the policy, and detailed route plans showing how the roads that are included in the precautionary salting network shall be treated.

The Winter Service provided is not an emergency service in the traditional sense in that low temperatures, ice and snow are regular and anticipated seasonal occurrences. In these circumstances the Winter Service is subject to the same regime of planning, review and update as other aspects of the highway maintenance services.

Although a specialised area, the Winter Service is a significant aspect of network management both financially and in terms of its perceived importance to users. It can also have significant environmental effects and the organisation of the service has considerable implications for the overall procurement and operational management of other highway maintenance services. This document should therefore be read in conjunction with other highway maintenance and inspection policies.

The County Council aims to provide a Winter Service which, as far as reasonably practicable, will permit the safe movement of vehicular traffic on the more important parts of the highway network, the strategic road network, whilst attempting to minimise delays and accidents directly attributed to the adverse weather conditions.

The service utilises an assessment process for prioritising which routes should be included in its precautionary salting schedule.

This process was introduced to provide the Council with a robust legal response to additional legislation. The statutory basis for Winter Service varies in different parts of the UK. In England and Wales Section 41 (1A) of the Highways Act 1980 was inserted on 31st October 2003, by Section 111 of the Railways and Transport Act 2003. The first part of Section 41 now reads:

- a) The authority who are for the time being the highway authority for a highway maintainable at the public expense are under a duty, subject to subsections (2) and (3) below, to maintain the highway.
- b) (1) In particular, a highway authority are under a duty to ensure, so far as is reasonably practicable, that safe passage along a highway is not endangered by snow or ice.

This is not an absolute duty, given the qualification of ‘reasonable practicability’, but it does effectively overturn previous legal precedence, albeit not with retrospective effect. Section 150 of the Act still imposes a duty upon authorities to remove any obstruction of the highway resulting from ‘accumulation of snow or from the falling down of banks on the side of the highway, or from any other cause’.

This update is necessary to advise of any modifications that have occurred since the last review in 2024 and forms part of the ongoing process of continuous improvement.



Figure 5 – Designated 26t tonne MAN gritter in action.

Part 2 – Update (2024/2025)

The review of the Winter Service Plan was completed in advance of the 2024-2025 winter service period. This document is a refresh of the previous plan which is still valid.

The Code of Practice for Highways Maintenance Management 2005 made a number of recommendations that authorities should keep their Winter Service Plan under review.

This Code of Practice was further updated in October 2016 and Authorities amend and review their policies to reflect this current advice.

Ceredigion, along with the other 21 Welsh Authorities, have engaged with the County Surveyors Society Wales (CSSW) to ensure a consistent approach to the implementation of the outcome and recommendations of this document.

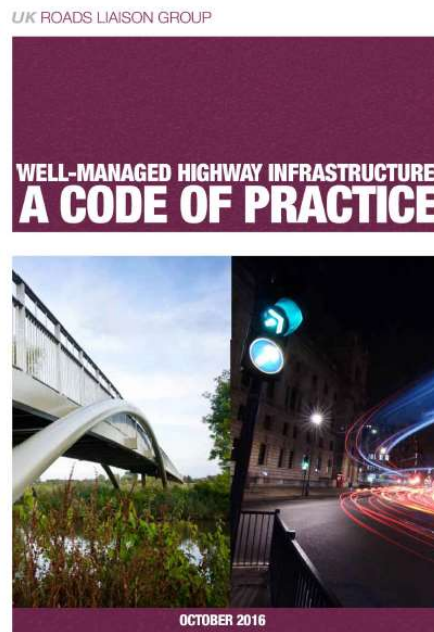


Figure 6 – Front cover of the UK Roads Liaison Group publication, “Well-Managed Highway Infrastructure: A Code of Practice”

Part 3 – Area and Responsibility

Ceredigion has an area of 692 square miles and its road network comprises Trunk, County Principal, Non-Principal and Unclassified roads. This network is chiefly rural in character, but with a significant Urban element in the major towns. The network is made up of the following:

Figure 7 – Table showing classifications of road network and their length in kilometres within rural and urban areas of Ceredigion.

	Rural (km)	Urban (km)	Total (km)
Trunk	84	30	114
Principal (Class 1)	124	34	158
Non-Principal (Class 2 & 3)	1066	100	1166
Unclassified	700	129	829
Total	1974	293	2267

Table ends.

The Welsh Government is responsible for Motorway and Trunk Road Maintenance in Wales. The Trunk Roads A44 and A487 are administered as part of the North and Mid Wales Trunk Road Agent (NMWTRA).

NMWTRA is a collaborative partnership. It covers the area of 8 of the Welsh Local Authorities (Anglesey, Ceredigion, Conwy, Denbighshire, Flintshire, Gwynedd Powys and Wrexham) who will be responsible for implementing Trunk Road maintenance including the winter service provision in their region.

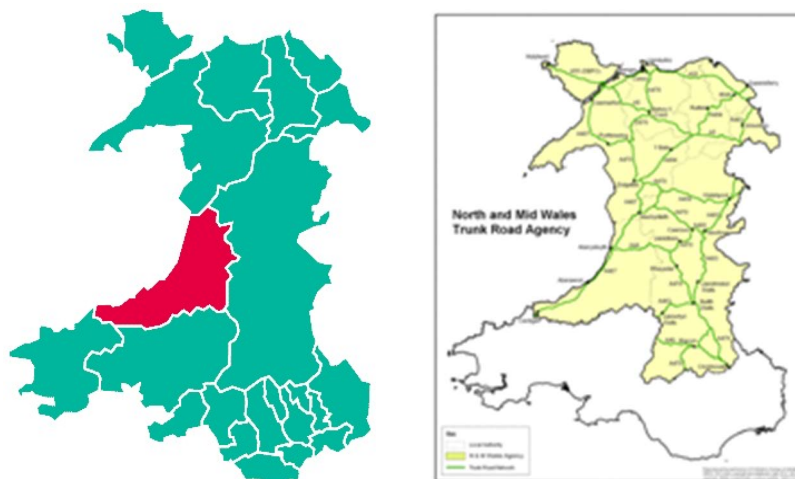


Figure 8 – Map of Wales showing the area of Ceredigion County Council, alongside Map of Wales showing the boundary of the Mid Wales Trunk Road Agent. © Crown copyright and database rights 2024-2025 Ordnance Survey 100024419.

Ceredigion County Council, as service provider for NMWTRA, acts as the lead decision making service provider for the following routes:

Figure 9 – Table showing the three main sections of the Trunk Road network in Ceredigion for the purposes of Winter Service decision, and showing, for each of these, the Lead Decision Making Service Provider, and the Primary and Secondary Operational Service Providers.

Route Number	Extent	Lead Decision Making Service Provider	Primary Operational Service Provider	Secondary Operational Service Provider
A487	County boundary to Cardigan Ridgeway Roundabout	Ceredigion County Council	Pembrokeshire County Council	Ceredigion County Council
A487	County Boundary to Celtica Roundabout (Machynlleth)	Ceredigion County Council	Ceredigion County Council	Powys County Council
A44	Aberystwyth to Felin Fawr Roundabout (Llangurig)	Ceredigion County Council	Ceredigion County Council	Powys County Council

Table ends.

Role of the Service Provider

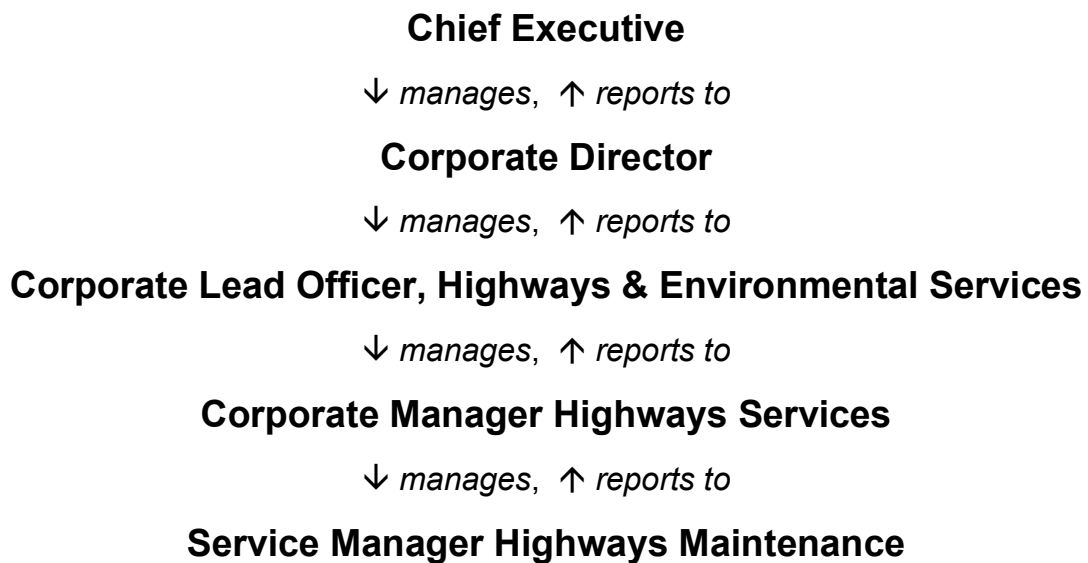
The Local Service Provider is responsible for:

- The development and review of the Winter Service Plan
- The Implementation of the Winter Service Plan and delivery of services as defined in the Plan
- The determination of the Winter Service precautionary treatment routes
- The day to day gathering of the weather forecast and road condition information, decision-making and operational management.
- Liaison with neighbouring service providers to ensure a continuous and consistent service.
- The communication of Winter Service Actions to all relevant parties.
- The implementation of the Winter Service Actions as communicated.
- The provision of Plant, Labour, and Materials.
- The maintenance and operation of winter service vehicles, compounds, and equipment and
- The monitoring and reviewing of the performance of the service provided.

Part 4 – Organisational Structure

Highways & Environmental Services operates a ‘single hatted’ approach to Winter Maintenance Strategy and Winter Maintenance Operational Delivery. The organisational responsibilities are documented in the Service Quality Manual.

Figure 10 – Hierarchy of Roles



The Chief Executive, Corporate Director and the Corporate Lead Officer, Highways & Environmental Services have overall direction for the Service.

The Corporate Manager Highways Services and the Service Manager Highways Maintenance oversee the strategic and operational requirements of the service.

Part 5 – Operational Management

For winter maintenance operations the county is divided into two areas – **North** and **South**, based on the depots at Glanyrafon (Aberystwyth) and Penrhos (Llandysul).

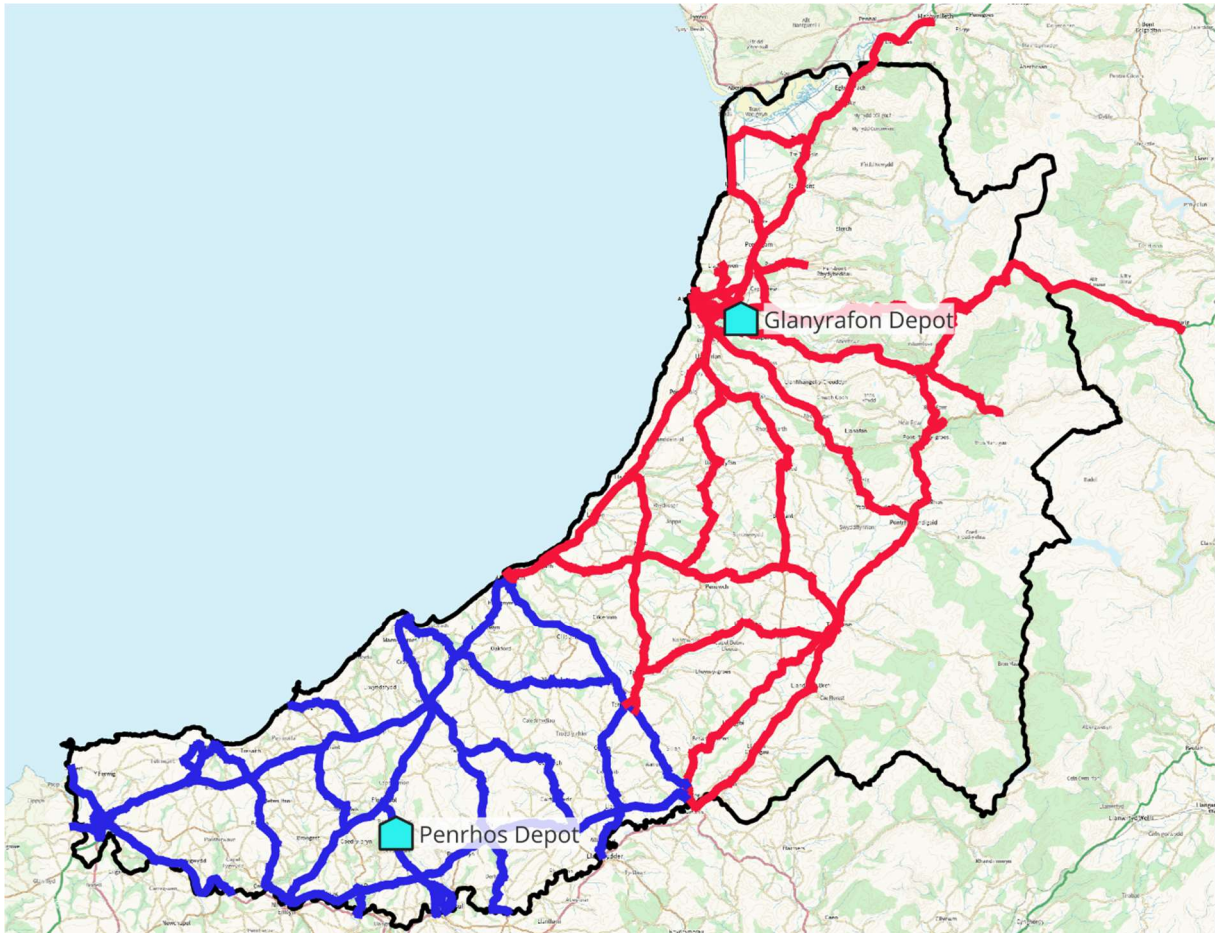


Figure 11 – Map of Ceredigion showing the locations of Glanyrafon and Penrhos Depots. Gritting Routes operating from Glanyrafon Depot are shown as red lines on the map, and those operating from Penrhos Depot are show as blue lines. © Crown copyright and database rights 2024-2025 Ordnance Survey 100024419.

Outside office hours, at weekends, bank holidays and at any other time when the council offices are closed, a 'Duty Officer System' is in operation. This is operated by experienced officers on a rota system. Duty Officers deal with all emergency situations affecting the highway network, not just those associated with winter service requirements.

In a widespread emergency, a central Control Room would be operated at the Council offices in Aberaeron or any of its depots and the county's Major Incident Plan would be brought into action.

Part 6 – Weather Forecasting & Ice Prediction System

Weather Forecasting

Weather forecasting is provided for Ceredigion, as it is generally across Wales, by MetDesk.

The weather forecasting service is provided to the County Council between the 1st Oct and 30th April. The service takes the form of a 24-hour forecast transmitted daily at around 13.00hrs with supplementary road danger warning updates and out-of-hours consultancy facilities. The forecast is used to assist in planning what actions are required.

They are reviewed through the MetDesk system by an appropriate officer. At weekends the Duty Officer reviews the forecast via lap-top computer. In the event of a change of forecast the Duty Officer is contacted directly by MetDesk (or the Duty Officer will contact MetDesk directly).

Ice Prediction

Ceredigion has six Ice prediction outstations located in the county. Three are Welsh Government outstations and three are Ceredigion County Council outstations. These are located at

- Bwlch Nant-yr-Arian, near Ponterwyd on the A44T
- Esteddfa Gurig on the A44T
- Synod Inn on the A487T
- Bronnant on the A485
- Lampeter A485 and
- Adpar B4333



Figure 12 – Photo of an Ice Prediction Outstation

These outstations form part of the 'ICELERT' monitoring system that covers the whole of Wales and there are ten such outstations in the West Wales region. MetDesk have direct access to both the outstations' road sensors and associated weather station. Other stations are monitored and include:

- A477 Red Roses
- A40 White Mill
- A487 Llantood
- A487 Roch
- A482 Pumpsaint
- A476 Carmel
- A40 Nant-y-Ci
- A483 Erwbeili
- A487 Derwenlas
- A493 Tywyn
- A486 Llandysul

The daily operation of the system is now undertaken by VAISALA, who provide a 24hr, 7days a week Bureau service to the Authority. Sensors installed at outstations store and relay information on air and road surface temperatures, dew point, wind speed and direction.

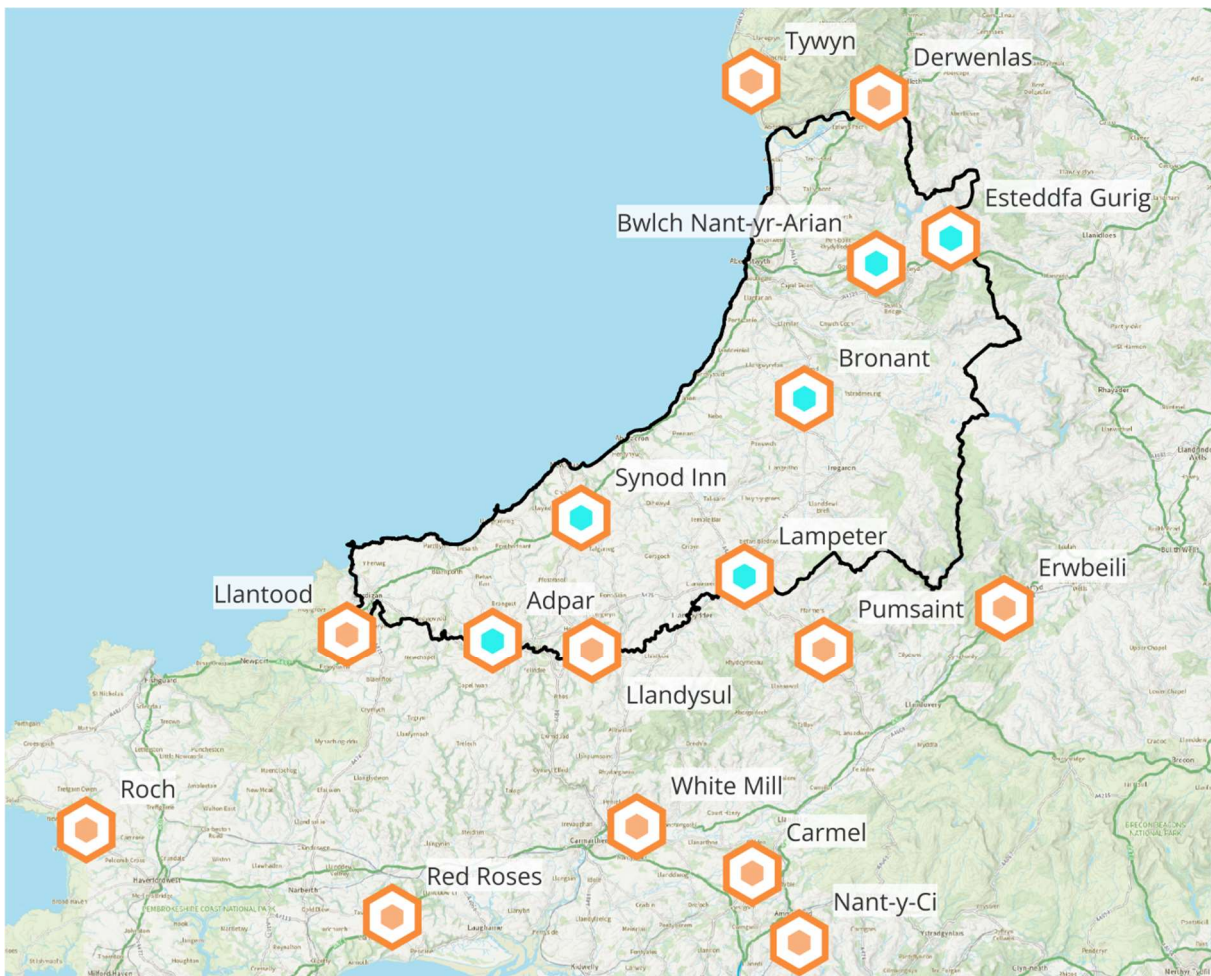


Figure 13 – Map of Wales showing Weather Station Locations

The information is relayed to the master station through telephone modem links. During Medium and High Periods the forecasts are transmitted by MetDesk to the VAISALA Bureau at Birmingham. It is then automatically transferred to the Secondary Master Stations operating at the Glanyrafon and Penrhos Depots as well as the offices at Penmorfa, Aberaeron.

The Ice Prediction System is monitored by VAISALA for MetDesk on a 24hr basis. If critical situations are detected by the sensors, the relevant officer and/or Duty Officer are informed.

NMWTRA installed a new station in 2024-25 at Eisteddfa Gurig on the A44. All Ceredigion outstations now have added functionality in the form of video cameras which further aid in the decision-making process.

Weather Periods

The 'winter' period is divided into three distinct phases for Winter Service provision:

- LOW – October & April – Severe weather not expected.
- MARGINAL – November & March – Severe weather may occur.
- HIGH – December to February – Severe weather reasonably expected.

Part 7 – Communications

Operational Communications

All winter maintenance vehicles are in mobile phone contact with their depot supervisors in order that instructions can be passed, and current information relayed back from the vehicles. In addition, all vehicles are presently tracked by satellite by Exactrak, which is a web-based vehicle tracking and monitoring system, providing detailed information about the operations of the entire fleet.

During prolonged adverse weather

In emergency situations the winter service plan will be supplemented by the Departmental Emergency Plan (DEP). Severe weather incident departmental coordination meetings will take place in accordance with Annexe 1 of the DEP. A core group of personnel consisting of senior officers and operational staff will form an emergency operations hub (EOH) to discuss and plan actions.

Plans, actions, and other matters are relayed to corporate council meetings which include attendance by other service heads and key stakeholders including emergency services.

Media communications and publicity – General and Pre-Winter Information

The Council will provide driver information / advice. This information will also be made available on the Council's web site.

The public will be advised of the Council's winter maintenance plan for the winter on the website at

ceredigion.gov.uk/resident/travel-roads-parking/highways-during-winter/

offering winter driving advice prior to the winter and during adverse conditions to promote road safety and to help to ensure that motorists plan their journeys.

Despite our best efforts, winter weather can still make roads dangerous.

A corporate call centre deals with queries and requests from the public during normal working hours. Outside these hours and at weekends the council operates a 24hr emergency duty officer system.

During prolonged adverse weather

Liaison with the news media, particularly the local radio stations and BBC Cymru/Wales is of the utmost importance and will be maintained during periods of prolonged adverse weather and heavy snowfall. Operational staff will take a proactive role in providing information to media organisations as work progresses via the Council's Press Office.

The Council's website shall be updated regularly to report the current situation on the ground including information on road closures. Severe weather advice for the travelling public can be accessed from the Council's website. In addition, advice will be further communicated by the Council's Press Office as is necessary via other social media platforms such as Facebook and 'X' (formerly Twitter), and Instagram.

Part 8 – Service Response

Staffing Arrangements

For Winter Maintenance purposes the County is divided into two Areas based on the operational depots at Glanyrafon, Aberystwyth and Penrhos, Llandysul. The A482, Aberaeron to Lampeter road, is generally taken as the division between the North and the South.

An 'Out of Hours' Duty Officer system is in operation for both areas from 1st October to 31st April. Duty Officers are on a rota which is made up of experienced and trained officers. Each Duty Officer is contactable on a designated emergency telephone line (see back cover) by means of an automatic call forwarding system. Outside office hours the duty officer is responsible for deciding on the action appropriate to the conditions. The Duty Officer is in contact with supervisory staff at each depot when action is required. For Winter Maintenance purposes, Ceredigion Duty Officers routinely liaise with Pembrokeshire, Powys, and Carmarthenshire Duty officers for proposed action on primary designated pre-treatment inter-county routes.

Training

To ensure the appropriate level of competence, the training and development needs of all personnel should be established and reviewed annually including health and safety and appropriate vocational qualifications.

The National Winter Service Research Group (NWSRG), UK Roads Liaison Group (UKRLG), Highways Agency (HA) and Institute of Highways Engineers (IHE) are supporting the creation of formal Development of a National Winter Service Competency Standard for Winter Decision-Makers in order to:

1. Create benchmark learning outcomes for UK Winter Services Decision Makers training
2. To create a learning and competence framework up to Incorporated Engineer level and
3. To create benchmark standards for the assessment of Decision Makers competence

Ceredigion Duty Officers attend specialist training on the interpretation of weather forecasts and the use of dedicated computer software, which is linked to the ice stations located in the county, with further ice stations located in neighbouring counties. The system provides historical and up-to-date information on road conditions, which is linked to MetDesk and is available to the Duty Officer 24 hours a day during the winter period.

Operatives involved in applying the service on the ground receive an annual refresher training course in the general use of the equipment and familiarised with any new plant or equipment. Operatives are also trained and qualified to City & Guilds 6159: winter service operations qualification.

Exercising

The new guidelines recommend exercising to test the winter maintenance plan.

It is considered that this recommendation is more applicable to those authorities that seldom experience adverse winter weather, the south east of England for example. Ceredigion experiences poor winter weather on a more frequent basis and considers that its operational response to this poor weather on an annual basis is an adequate means of affording the exercising being advocated.

Response Level

The levels of action are as follows:

- **Standby** – Operatives at home to await call out. (Level 1)
- **Stand-to** – Operatives at depot to await instructions. (Level 2)
- **Patrol** – Undertaken by drivers only in gritting vehicles on specified routes to apply salt selectively e.g. icy patches and seepages. (Level 3)
- **Pre-salt** – Undertaken by drivers only in gritting vehicles to supply salt at a specified rate of spread over the complete length of the scheduled routes. (Level 4)
- **Snow Clearing** – Undertaken by drivers and mates when ploughs are fitted. Salt is also applied in snow conditions but at a higher rate. (Level 5)

Operations

The Winter Maintenance fleet of vehicles is made up of purpose built gritters, de-mounts, dual purpose vehicles and snow blowers.

The fleet is currently being rationalised. It is intended to have a fleet of dual-purpose winter maintenance and routine highway maintenance vehicles.

The Corporate Manager Highways Services together with the Service Manager Highway Maintenance is responsible for the procurement of the Winter Maintenance Fleet.

The Corporate Manager Highways Services and the Service Manager Highway Maintenance have the responsibility of providing the operatives to man the fleet and to ensure that the fleet is maintained and serviced. Maintenance of the fleet is

undertaken by the Service Manager Transport Services via the Transport Maintenance Unit.

Decision Making

Normal Winter Maintenance precautionary gritting operations are carried out by single manned gritters. Risk assessments for this procedure identified lone working in potentially hazardous conditions as a high-risk activity.

A Global Positioning System (GPS) is incorporated into each Winter Maintenance vehicle. The GPS system is currently operated through Exactrak, and the system continually tracks the vehicle's position, allowing the Duty Supervisor to monitor the progress of the gritting operation and to accurately determine the gritter's position.

This new improved tracking system is factory fitted to new replacement gritters.

As stated, risk assessments for single manned gritting have identified lone working in potentially hazardous conditions as a high-risk activity. The tracking software provides an additional level of safety as it allows monitoring of the vehicles by supervisors and/or duty officers. Should operatives get into difficulty, officers will be alerted to a potential problem and help can be deployed as necessary.

The daily action, during normal office hours, is usually determined by the Projects manager and/or Operational Manager based at the Glanyrafon and/or Penrhos Office. The action taken is based on receipt of the content of the weather forecast received from MetDesk. An online Gritting Action sheet is completed and returned electronically to MetDesk who then issue the action to a mailing list that includes NMWTRA, neighbouring authorities, emergency services etc. The action determined is then implemented. Paper copies of the action are sent to the winter supervisor.

Decision makers are suitably trained and experienced and are competent to make the winter service decision across the full range of conditions that may be met during the winter season.

They have a thorough understanding of the local network and any temporary or permanent conditions that may require particular consideration in delivering the service. They have a sufficient understanding of the technical process to determine how changes in de-icer, de-icer conditions, spreading capability and late changes to weather, road or traffic conditions may impact the level of service delivered and they have undertaken appropriate training.

The proposed action is relayed to the duty officers who are tasked with monitoring the weather forecast outside normal office hours. Should circumstances, such as a change in the predicted weather, dictate the duty officers, in communication with the forecaster, if necessary, can amend the proposed action.

In addition, officers communicate with their counterparts in neighbouring authorities regarding the intended course of action.

If a sustained period of snow or extreme cold is predicted in the 5-day forecast provided by MetDesk the Corporate Manager Highways Services may instigate a shift pattern of gritting operations to provide a 24-hour cover for the designated precautionary routes in each operational area. This shift pattern takes place at both depots and each shift consists of 12-hour periods with changeover of each shift at 12 noon and 12 midnight.

Application of Salt – Precautionary Salting

The decision to pre-salt (precautionary salting) is determined by the results received from the ICELERT system and from the MetDesk Forecasts. The data/advice received targets the sections of the precautionary route network requiring pre-salt and serves to minimise unnecessary salt spreading.

The decision to salt is qualified by factors such as local geographical idiosyncrasies, humidity measurements, wind speed and residual salinity observations.

If a warning is available the precautionary salting is most effective when falling temperatures reach plus +1°C, provided the prevailing humidity, residual salinity and cloud cover warrant the decision.

When continuous snow is forecast the spreading rates are increased according to the anticipated severity of the snowfall. The increased salinity will melt the initial snowfall and provide a wet surface beneath subsequent snow thus easing the work of ploughing.

Elevated parts of the highway network and sections in low lying areas are more prone to freezing and may require special attention.



Figure 14 – An 18 tonne designated gritter keeping the roads open.

Part 9 – Network / Hierarchy Priorities

Precautionary Pre-treatment Route Network

Priority has been given to Trunk and Primary Routes. These are the most heavily trafficked and strategic roads in the county.

These are followed by other principal roads, accesses to sites of strategic importance including roads leading to important employment and distribution centres, emergency service centres, important bus routes and bus depots, railway stations inter county links and important journey to work routes. Inter county links are married to the precautionary salting routes of neighbouring authorities.

The routes chosen for inclusion on the precautionary salting schedule are selected by using a route assessment methodology sometimes referred to as the 'Matrix'. The precautionary Schedule has been developed on a data-led risk based assessment process and on the basis of national guidelines. The Highways Authority has a duty under section 41 of the Highways Act 1980 to repair and maintain the highway. This extends to keeping the highway free from ice and snow (in so far as is practicable).

The winter service policy provides the Council with a defence in the event of a claim provided that it is reasonable, practicable and complied with. Routes shall not be added to the schedule outside this assessment procedure as it would undermine this Policy and the foundation upon which it is based. (i.e. the matrix). It would also undermine and confuse the Highway Authority's defence if challenged in relation to its duties under section 41 of the Highways Act 1980.

This assessment methodology is reviewed periodically to meet the changing needs imposed on the highway network. This assessment matrix must apply a scoring mechanism to ensure that the county council is able to deliver the service without having an adverse impact on other services.

The precautionary network now comprises approximately 458.1km (2024-25) of county road network, identified on the individual routes included within the detailed operational procedures. Each route is optimised and has been designed to ensure that it can be completed within a treatment time of 3 hours for normal salting activities and to maximise route efficiency.

In extreme winter events affecting the majority of the country, where the demand for salt nationally exceeds the stock replenishment capabilities of the salt producers, then as a last resort to conserve remaining salt stocks consideration will be given to reducing the precautionary salting network.

This 'emergency minimum network' will consist of Trunk and Strategic County roads only. Exceptions being important centres providing emergency facilities. This contingency, along with others already having been implemented, will conserve salt stocks to allow the authority to treat this remaining network for as long as possible or

until such time that salt stocks can be replenished. Neighbouring authorities will be informed of such an action where this affects inter-county linking roads.

Contingency Planning is described in **Part 13** of this plan.

Salting of Footways & Cycleways

Footways

Footways retain grit longer than roads and therefore require treating less often. Reactive salting will normally be the determined response, although pre-treating of footways may be carried out if deemed necessary or essential by the relevant Duty Officer.

Treatment will be provided for heavily used, or town centre footways, especially if they are promoted routes.

Cycleways

Most of the lengths of cycleways in Ceredigion are recreational. However certain sections, particularly in Aberystwyth, are either commuter routes or Safe Routes to school.

The recreational sections will not form part of the Winter service, nor those constructed through environmentally sensitive areas. The Aberystwyth commuter routes and Safe Routes will be treated with reactive salting, this being the normal determined response. Alternatively they may be closed on safety grounds as it may not be practicable or reasonable for them to be treated.

Part 10 – Snow Plan

Snow Clearance of Carriageways

Priority is given to the Strategic road network which includes the Trunk Roads, followed by roads leading to essential employment and distribution centres, hospitals, fire, ambulance and police stations, main bus routes, important travel to work routes, railway and bus stations, roads serving shopping centres, single accesses to villages, hamlets, rural communities, schools and farms and finally residential roads.

Where conditions allow, ploughing is carried out as soon as depths have reached 3 to 4 cm. Each pass of the plough may be supplemented by salt spread.



Figure 15 – A Rolba snowblower in action, snowblowers are used in extreme conditions to clear snow.

During prolonged extreme adverse weather conditions as many as six successive treatments can take place within a 24hr period. This is referred to as 'heavy salting'. This can expend some 500 tonnes of salt per day. At present capacity this gives Ceredigion 19.6 days resilience if fully stocked at the outset. Resilience being the number of days of heavy salting that can take place without having to re-stock.

In extreme circumstances the treated network will be reduced to a minimum level if the need for conservation of salt stocks has been identified. This 'emergency minimum network' will consist of Strategic County and Trunk Roads only. Exceptions to this being important centres that provide emergency facilities such as hospitals. This contingency, along with others already having been implemented, will conserve salt stocks to allow the authority to treat this remaining network for as long as possible or until such time that salt stocks can be replenished.

Neighbouring Authorities will be informed of such an action where this affects inter-county linking roads.

Other Roads

During periods of prolonged severe winter weather the Council will provide a reactive service to other roads but only where the effective treatment to the precautionary salting network, as detailed earlier, is not compromised and when resources allow. Other roads being those not included on the council's precautionary treatment network.

The effectiveness and response that can be afforded to these other roads is also dependent on the availability of the plant and labour in the 'reserve' winter maintenance fleet. This fleet will comprise mainly of 'retired' front line pre-treatment equipment, 'gritters', that are still operational for other highway maintenance activities

The Council also retains a select list of local contractors (farmers in the main) who are assessed as being competent to assist with snow clearing activities on the localised publically maintained minor road network to smaller settlements.

Snow Clearance of Footways

Priority is given to main shopping areas, followed by busy urban areas including footways leading to essential establishments, hospitals, important urban bus routes, schools and known trouble spots such as those with steep gradients.

Part 11 – Salt Management

Salt Procurement

The supplier of salt, also known as rock salt, to Welsh Authorities is Compass Minerals. Compass Minerals are operators of the UK's biggest rock salt mine and Britain's largest supplier of natural rock salt which is used by winter maintenance professionals to thaw icy roads in wintry weather.

Compass Minerals is based at the Winsford Rock Salt Mine, in Cheshire.



Figure 16 – Salt mining in progress at the Winsford Rock Salt Mine.

Ceredigion currently procures its salt through a joint Welsh Authority procurement framework. This provides an effective and value for money approach to increasing winter service resilience.

Ceredigion ensures that the stock of salt it can hold in its storage facilities is fully replenished following the end of the winter service period and before the onset of the next winter service period. This is done during the summer months as the rate per tonne for rock salt is less.

Stocks are monitored as the winter period progresses together with the weather forecast.

An accurate measurement of the salt in stock at the outset is kept and as salt is applied to the network and stocks decrease this is monitored. Each gritting vehicle is weighed before leaving the depot and on its return following the gritting run. A decision is made, based on known salt stock levels, expected usage from forecasts and experience, to replenish those stocks as necessary.

Stock levels are now managed in house. Records are kept of the amount of salt in stock at the start of the winter season. The amount of salt used during winter is monitored daily through information gained from weighbridge tickets and record sheets and saved on to a data base. When stocks reach a certain level, more rock salt is ordered from Compass Minerals.

Salt Storage

Salt is stored at two locations in purpose built salt barns at the highways depots at Glanrafon, Aberystwyth and Penrhos, Llandysul. These barns are modular in construction. Their total covered storage capacity is 9,800 tonnes.



Figure 17 – Salt Barn at Glanrafon Depot, Aberystwyth. Capacity = 3,400 tonnes.



Figure 18 – Salt Barn at Penrhos Depot, Llandysul. Capacity = 6,400 tonnes

The Welsh Local Government Association recommends that salt stocks for the start of any winter season should be set at 1.5 times the average usage for the previous six year rolling period . This figure equates to 8,884 tonnes.

Both the Glanrafon and Penrhos salt barns will be at appropriate capacity at start of any Winter Maintenance season.

Salt Bins

Salt Bins are provided to allow self-help by motorists or pedestrians on parts of the network that are not on Priority Routes. They may also be provided at known areas of difficulty on those routes, for example steep gradients, sharp bends and junctions.

Records indicate that there are approximately 650 salt bins located throughout the county varying in capacity. Their condition is monitored and they are replenished as necessary at the beginning of each winter season and re-stocked during a severe winter event as resources allow. Damaged bins are replaced as funds dictate.

Requests for the provision of salt bins are assessed for approval or otherwise by using an operational salt bin assessment criteria form.

Salt from these bins is intended for use at that specific location on the public highway and is not for removal to be used elsewhere or for private use.



Figure 19 – A gritter being loaded at Glanrafon Depot, Aberystwyth.

Part 12 – Resources, Plant and Vehicles

The Winter Maintenance Service is dependent on the efficient spreading of salt from purpose-built vehicles to act as a de-icer and the use of salt or a salt/grit mixture to minimise the effects of formed ice or packed snow. Lying snow is removed by ploughing, blowing or physical loading.

Figure 20 – Table showing Personnel Deployment (2024-25)

Occupation	Glanyrafon Depot (North)	Penrhos Depot (South)	Total
Drivers available for rota	26	20	46
Loaders	N/A	7	7
Mechanics	(rota)	(rota)	(rota)

Table ends.

Figure 21 – Table showing Plant / Vehicle Deployment (2024-25)

Plant / Vehicle	Glanyrafon Depot (North)	Penrhos Depot (South)	Total
Rotary Ploughs (Snow Blowers)	3	0	3
Straight Ploughs	6	5	11
Purpose Built Gritters	3	1	4
Multipurpose Vehicles	4	3	7
Mini Gritters	2	2	4

Table ends.

Figure 22 – Table showing Pre-salt Gritting Fleet (2024-25)

Glanyrafon (Make and Model)	Penrhos (Make and Model)
CN74 ONB Romaquip Mercedes 4x4	CE19 GHH Econ DAF 6x4
CN18 UDO Econ DAF 4x2 Unibody	CK71 UUE Econ DAF 6x4 QCB
WX64 WKG Romaquip MAN 4x4	CN18 UDM Econ DAF 4x2 Unibody
WX65 ZLZ Econ MAN 6x6	GX72 JUE Ford Ranger 4x4 with Salt Dogg gritter.
CU73 AZF Romaquip Volvo qcb 6x4	Reserves
Reserves	CN18 UDL Econ DAF 4x2 Unibody
CN21 XCA Econ Mercedes 4x4 Unibody	1 cu Salt Dogg gritter
CN18 UDK Econ DAF 4x2 Unibody	
1 cu Salt Dogg gritter	

Table ends.



Figure 23 – One of the North gritters ploughing on the A44 to keep the trunk road open and accessible.

Part 13 – Contingency Planning

Following a review of guidelines in respect to the Winter Service provision it has been recommended that authorities should prepare contingency Plans for severe weather conditions which include possibilities such as salting a Minimum Winter Network.

This 'emergency minimum network' will consist of Strategic County and Trunk Roads only. Exceptions to this being important centres that provide emergency facilities such as hospitals. This contingency, along with others already having been implemented, will conserve salt stocks to allow the authority to treat this remaining network for as long as possible or until such time that salt stocks can be replenished. Neighbouring authorities will be informed of such an action where this affects inter-county linking roads.

The decision to implement the emergency minimum network is seen as a last resort. Prior to undertaking this decision other actions identified as preserving the use of salt would have been instigated.

The rate of spread of salt is also critical to preserving salt stocks. A decision to reduce the spread from the normal treatment can significantly preserve remaining salt stocks.

Part 14 – Out of Hours Emergency Telephone Numbers

[Overleaf / back cover of document.](#)

Out of Hours Emergency Telephone Numbers

North – 01970 625277

South – 01239 851604

(North meaning all roads to the north of the A482,
which is the road between Aberaeron and Lampeter)

Out of Hours telephone numbers are in operation from:

**17:00hrs to 09:00hrs Monday to Friday and from
16:30hrs Friday to 09:00hrs Monday morning.**

**These are also in operation over all bank holidays and
any other days when the Council offices are closed.**

At all other times during normal office hours use:

01545 570881, clic@ceredigion.gov.uk

Ceredigion County Council